Expertise and Mistakes, To Share or Not to Share?  
A Cross Cultural Study of In-group /Out-group Relationships on Knowledge Sharing

Vincent M. Ribiere  
The Institute for Knowledge and Innovation  
South-East Asia (IKI-SEA)  
Bangkok University, Bangkok, Thailand  
vince@vincentribiere.com

Qiping Zhang  
Palmer School of Library and Information Science  
Long Island University  
Brooksville, NY 11548, USA  
qiping.zhang@liu.edu

Abstract

Many factors have been identified as facilitating knowledge sharing in organizations. Culture is often considered as one of the critical ones. This empirical study examines the effect of national culture and in-group/out-group relationship on knowledge sharing attitude. A set of questionnaires measuring cultural values, and scenarios engendering different types of relationships among group members were conducted with students from China, United States, Kingdom of Bahrain and from the Kingdom of Thailand. The results show some cultural differences in term of knowledge sharing intensity and preferences. This suggests that global organizations should manage their knowledge sharing environment and strategy in different ways in different parts of the world if they want to maximize its benefits. There is a direct implication of this research on the usage of knowledge management technologies, since for instance, the participation in online communities of practices for employees of multinational corporations is directly affected by cultural values.

2. Background

2.1. Culture Dimensions

When it comes to assessing national cultural traits, most researchers use Hofstede’s typology which is based on five bi-polar dimensions:

- **PDI**: Power Distance is defined as the extent to which the less powerful members of institutions and organizations within a society expect and accept that power is distributed unequally.
- **IDV**: Individualism is the opposite of Collectivism. Individualism stands for a society in which the ties between individuals are loose: a person is expected to look after himself or herself and his or her immediate family only. Collectivism stands for a society in which people from birth onwards are integrated into strong, cohesive in-groups, which continue to protect them throughout their lifetime in exchange for unquestioning loyalty.
- **MAS**: Masculinity is the opposite of Femininity. Masculinity stands for a society in which emotional gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with the quality of life. Femininity stands for a society in which emotional gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life.
- **UAI**: Uncertainty Avoidance is defined as the extent to which the members of institutions and organizations within a society feel threatened by uncertain, unknown, ambiguous, or unstructured situations.
- **LTO**: Long-term Orientation is the opposite of Short-term Orientation. Long-term Orientation stands for a society that
fosters virtues oriented towards future rewards, in particular perseverance and thrift. Short-term orientation stands for a society that fosters virtues related to the past and present, in particular respect for tradition, saving face, and fulfilling social obligations.

IDV and LTO are two dimensions that are particularly relevant to knowledge sharing of this study. In general, people from a collective culture will be more willing to share knowledge with their colleagues than those from an individual culture because of their cultural value on collective interest. People from a long-term orientated culture, valuing on building long-term relationships, will be more willing to share knowledge than those from a short-term orientated culture.

Hofstede’s model has been subject to criticism, but overall it remains the most utilized and validated tool to assess organizational culture. For this reason we decided to use his assessment tool in order to picture the cultural factors associated with the four countries selected. The U.S. and China differ dramatically on power, distance, and individualism/collectivism, and have frequently been used as representatives of western culture and eastern culture in cross-cultural studies. Since these two countries are probably the most studied in the literature we decided to select two additional countries that we think have some different traits. A strategic position between the East and the West makes the Kingdom of Bahrain a good candidate for a mixed culture of western and eastern cultures. The Kingdom of Thailand is one of the few South-East Asian countries to have never been colonized. Because of Thailand’s autonomous development, we believe the country embraces some different core values than China while still being an Asian emerging and developing country.

2.2. Saving Face for Holding Mistakes

Among the cultural theories behind knowledge sharing, “saving face” if often mentioned. “Face” in Chinese culture implies “something that represents the confidence of society in the integrity of ego’s moral character; the loss of which makes it impossible for him or her to function properly within the communication”. In other words, a person's 'face' is always attached to status, and assessed in terms of what others think of him/her. The “saving face” value is part of the LTO dimension of Hofstede. Huan, Davison and Gu performed an experiment to assess the impact of personal and cultural factors on Knowledge sharing in China. Their findings show that the “saving face” inclination has a negative relationship with the intention to share knowledge and that “gaining face” had a positive relation to the intention to share knowledge. On the other hand, Ardichvili and al. conducted an exploratory qualitative research study to assess cultural differences on knowledge sharing through online communities of practice in three countries (China, Russia and Brazil). Various aspects of each individual culture were used in their study, among them; individualism-collectivism, in-group and out-group orientation, fear of “losing face” and the importance of status. One of their findings showed that “saving face” was not so important for the Chinese, as was originally expected, and that older people were more likely to be sensitive than younger people. Huang, Davison and Wei also discovered the non-significant effect of “saving face” on knowledge sharing by explaining that “gaining face” was becoming more important. A cross-cultural study [7] on sharing personal knowledge revealed that both Chinese and Americans were more willing to share personal information with in-group members than out-group members. However, due to the concern for potential “face-losing,” the Chinese would be more willing with share personal knowledge with a stranger from different culture (out-group) than a stranger from the same culture (in-group/culture), while such differences did not occur in American participants.

When people made a mistake, are they willing to share it with others especially when the mistake will benefit the organization greatly? Individual factors, like the fear of negative consequences, such as losing a job, punishment and “losing face,” can prevent people from sharing. On the other hand, collective factors like preventing others from making the same mistakes and eventually benefiting the organization as a whole would encourage people to share knowledge with others. It is human nature to hide failures in front of others; however, different cultures value individual success vs. collective success differently. We predict that:

\[ H1: \] people from a collectivism culture tend to be more willing to share their own mistakes to benefit groups than those from an individualist culture.

When a long-time friend outside the organization made a mistake, are people willing to share the story to benefit to the organization? For people from a culture valuing long-time relationships, concern over this friend’s “face” and the potential effect on the relationship will prevent people from sharing the story, but for people from a culture low on long-term orientation (LTO), they will care less on “saving
face” for this friend and will be more willing to share the story of their mistake. Therefore, we predict:

\[ \text{H2: } \text{people from a culture low on LTO will be more willing to share a friend’s mistake than those from a culture high on LTO.} \]

2.3. In-group/Out-group and LTO for Sharing Expertise

In contrast to negative knowledge (e.g. failure stories, mistakes), how will people from different cultures deal with positive knowledge (e.g. success stories, expertise)? Will the same individual and collective factors influencing people's sharing of negative knowledge play the same role here or will different factors play a part in the positive knowledge sharing?

One important factor identified from the previous study [7][8] is the in-group/out-group relationship. There are different definitions for in-group/out-group relationships. In Earley’s study, an in-group was defined as “an aggregate of people sharing similar trait and background characteristics”. It further stated that “this definition does not require that in-group members have direct contact with one another while working or that they work interdependently.” In another study, in-group/out-group relationships were defined based on whether members have successfully worked together. In other words, an in-group relationship was defined as people having successfully worked together on some tasks whereas an out-group relationship as people having met just once or twice at meetings. Zhang et al. [7] defined in-group members as either working together before or coming from the same cultures.

A second factor for sharing positive knowledge is vertical/horizontal collectivism/individualism. It is commonly accepted that collectivists are more likely to share knowledge with in-group members (to benefit the group) as opposed to individualists who value individual successes [8][10][14]. Chow et al. states that “when knowledge sharing poses a conflict between self and collective interests, members of a more collectivist culture are expected to share their knowledge more fully, thereby placing the interests of the collective over their own”. Bhagat and al. support the idea that individualism and collectivism influence how members of a culture process, interpret and make use of a body of information. Collectivistic cultures are much more sensitive to context-specific information when it comes to attending to, comprehending and putting knowledge into action. People from an individualistic culture have a tendency to focus on knowledge when it concerns personal attributes (i.e., Personality, beliefs, feelings and attitudes) towards an event, object or person. Bhagat and his colleagues demonstrated the moderating effect of the 4 cultural typologies (Individualism (Horizontal and Vertical) and Collectivism (Horizontal and vertical) against different levels of effectiveness of cross-border transfer of organizational knowledge.

However, two countries might be collectivist but the rationale behind their knowledge sharing might be different. For example, a study with Chinese and Russians shows that the Chinese share knowledge with their in-groups in order to preserve the group’s well-being and face whereas Russians might do it for self-interest motive to establish personal domination [16]. The theory of vertical and horizontal collectivism and individualism provide answers to such differences [9][10]. Vertical collectivism includes perceiving the self as a part (or an aspect) of a collective and accepting inequalities within the collective. Horizontal collectivism includes perceiving the self as a part of the collective, but seeing all members of the collective as the same; thus equality is stressed. Similarly, vertical individualism includes the conception of an autonomous individual and acceptance of inequality. Horizontal individualism includes the conception of an autonomous individual and emphasis on equality. The U.S. is classified as being vertical individualistic, while China as a vertical collectivist and Thailand evolving to a horizontal collectivist (loose vertical) [9-12]. One study showed that the Kingdom of Bahrain appeared to be a horizontal collectivism culture, though it concluded that it is not clear which type of collectivism was dominant. Therefore we predict:

\[ \text{H3: People from vertical cultures like China (vertical collectivism) and the U.S. (vertical individualism) will treat in-group members unequally while participants from horizontal culture like Thailand (horizontal collectivism) will treat in-group members equally.} \]

Finally long-term orientation (LTO) is considered as an important factor in sharing knowledge. When LTO is valued, people tend to pay attention to building long-term relationship by sharing expertise and doing favors for each other. Therefore we predict:

\[ \text{H4: people from HIGH LTO culture like China are more willing to share expertise than those from LOW LTO culture U.S..} \]
In summary, the objective of the study is to identify factors influencing people from different cultures in respect to their habits of sharing or holding positive (e.g. expertise), and negative knowledge (e.g. mistakes).

3. Method

3.1. Design

This study is a 4 x 4 mixed experimental design: one between-subject factor *culture* (Thailand, Bahrain, China, U.S.) and one within-subject factor *the group members’ relationship* with four levels (out-group, in-group(culture), in-group(work), and in-group).

The 4 cultures were selected due to their salient aspects of national culture, as well as their global political and economic importance.

3.2. Participants

198 Chinese, 112 U.S., 88 Bahrain, and 95 Thailand (Bangkok) college and graduate students studying in International programs (English) were recruited from the universities in their native cultures. Students were expected to work or to have worked for a company. Students were national citizens of the country they represented and they were asked how a typical employee in their organization would behave if they were faced with the scenario presented. We believe that the student’s view is representative of their native culture.

3.3. Tasks

Two scenarios from previous studies were used to measure people’s attitude towards knowledge sharing with in-group and out-group members.

The first scenario tested attitudes towards sharing knowledge of mistakes either made by self or by a friend. It depicted a situation in a company where a newly promoted department manager underestimated the cost of a new technology and introduced it to the department upon his becoming a manager. In one version of the scenario, the mistake was made by the new manager directly whereas in another scenario, the mistake was made by a friend of the new manager whose relationship to the manager was unknown to co-workers in the company.

The second scenario tested attitudes towards sharing knowledge of expertise with a member from one of in-group/out-group relationships. It described two engineers: one who previously dealt business with Industry A and now shifted to Industry B and the other who was interested in doing business with Industry A because his current Industry was facing a business downturn and needed information about Industry A from the first engineer. In the *out-group* situation, the two engineers came from different cultures and had no previous working experience together. In the *in-group(culture)* situation, the two engineers came from the same culture but had not worked together before. In the *in-group(work)* situation, the two engineers were from different cultures, but had worked together before. Finally, in the *in-group* situation, the two engineers were from the same culture and had worked together before. For each situation, participants were asked if the two engineers would share professional knowledge and to what degree they would be willing to share with group members.

3.4. Procedure

The study was a one-time session conducted in a lab setting. During each session, the participant read and signed a consent form, gave responses to the cultural values questionnaires, read and completed questions of the scenario, and received a stipend when the study was finished.

4. Results

4.1. Cultural Value (VSM) results

First, we analyzed our cultural value survey data. Among five cultural dimensions, individualism (IDV) and long-term orientation (LTO) are the two identified to be relevant to our study given that our two scenarios were designed to focus on the impact of in-group/out-group relationships on knowledge sharing attitudes.

As shown in Figure 1 and 2, our cultural index scores are pretty similar to Hofstede's scores for U.S. participants, but for the other three cultures, individualism scores (IDV) in our sample are much higher than Hofstede’s scores, and Chinese long-term orientation (LTO) is much lower.

MANOVA results showed the main effect of culture only on LTO ($F(3,491)=13.62, p<.01$). Post-hoc analysis showed that China is significantly higher on LTO than other 3 cultures (LSD $p<.01$). Although each of our 4 cultures are pretty close on IDV, post-hoc analysis showed that China is significantly lower than the U.S. on IDV (LSD $p<.05$).
4.2. Scenario 1

First, across all 4 cultures, people are more willing to reveal others mistakes than their own mistakes (Figure 3) (Chinese: t(198)=7.48, p<.01; US: t(110)=8.93, p<.01; Bahrain: t(46)=2.71, p<.01; Thailand: t(92)=2.65, p<.01).

Responses to the willingness to reveal personal mistakes varies across cultures (F(3, 446)=2.66, p<.05). Post-hoc analysis showed that Thai participants are significantly more willing to share their own mistakes than the participants from the U.S. and China (both LSD p<.05).

Responses to the willingness to reveal a friend’s mistakes showed significant cultural effect (F(3, 446)=3.19, p<.05). Post-hoc analysis showed that the U.S. is significantly more than China, Thai (both LSD p<.05) and Bahrain (p<.07).

4.3. Scenario 2

4.3.1. Attitude toward sharing professional knowledge. Results revealed significant main effects of culture (F(3,475)=4.78, p<.01), relationship (F(3,1425)=11.26, p<.01) and interaction effect (F(9,1425)=2.40, p<.05) (Figure 4).

The post-hoc analysis of cultural effect showed significant pairs (LSD p<.05): U.S.-China, U.S.-Bahrain, Thai-China, Thai-Bahrain. Regardless of the relationship between knowledge sharers, the U.S. and Thai participants were more willing to share professional knowledge than Chinese and Bahrain participants (Figure 5).

Paired t-test of relationship effect showed significance among all relationship pair comparisons (p <.05) except the pair of in-group/work & in-group. (Figure 6)
To investigate the interaction effect, two sets of analyses were conducted. One is a relationship comparison by culture via paired t-test by splitting data by cultures. It revealed that: i) the main effect of relationship holds the same for Chinese and US participants (in-group = in-group/work > in-group/culture > out-group). ii) But for Thai participants, none of in-group pairs (in-group/culture, in-group/work, in-group) were significant (p>.05). iii) For Bahrain participants, none of relationship pairs were significant (p>.05). Another set of analysis examined cultural comparison by relationship. It revealed that: a) there were no differences among the 4 cultures for out-group relationship; b) for in-group/culture relationship, Thailand is significantly higher than the other 3 cultures (LSD p<.05); c) and for in-group/work and in-group relationship, Bahrain is significantly lower than other the 3 cultures with the U.S. being higher than China (LSD p<.05).

4.3.2. Amount of professional knowledge to share. Results revealed significant main effects of culture (F(3,291)=3.26, p<.05) and relationship (F(3,873) = 45.16, p<.01) and interaction effect (F(9,873)=4.04, p<.01) (Figure 5).

To investigate interaction effect, two sets of analyses were conducted. One is a relationship comparison by culture via paired t-test by splitting data by cultures. 1) It revealed that: i) Chinese and Bahraini participant’s demonstrated a similar pattern: they shared similar amounts of professional knowledge in all three in-group relationships (p>.05). ii) the U.S. participants expressed a willingness to share high amounts of professional knowledge with in-group/work and in-group relationships, but not with out-group and in-group/culture relationships. iii) Thai participants didn’t treat in-group/culture and in-group/work differently. Another analysis is cultural comparison by relationship. It revealed that: a) there were no differences among the 4 cultures for out-group relationships; b) for the in-group/culture relationship, Thailand and Bahrain are marginally higher than China and the U.S. (LSD p=.06-.08); c) for the in-group/work relationship, the U.S. and Thailand are significantly higher than China and Bahrain (LSD p<.05 for U.S.-China, U.S.-Bahrain, Thailand-China, LSD p<.08 for Thailand-Bahrain); d) for in-group relationships, the U.S. and Thailand

![Figure 6: Attitude toward Sharing Professional Knowledge by Relationships (mean)](image)

![Figure 8: Amount of Professional Knowledge to Share by Culture (1=minimal, 9=all)](image)

![Figure 9: Amount of Professional Knowledge to Share by Relationships (1=minimal, 9=all)](image)
are significantly higher than China (LSD $p<.05$). Bahrain is marginally higher than China (LSD $p<.08$).

5. Discussions

5.1. Culture Value Survey

As shown in Figure 1 & 2, our culture value survey data is not the same as the data from Hofstede’s research. We believe that our small sample size and an evolution of cultures since the original Hofstede’s study, contributed partially to the differences. Even though this is not the topic of this paper, we believe that globalization is affecting some aspects of national cultures. Also, when we run empirical cross-cultural studies with small sample size, we may need to adopt a triangular measure for culture values. We are in the process of analyzing our PVQ data, which is a value tool at an individual level rather than national level as Hofstede did. Finally, such differences alert us that we could not take previous cultural difference findings for granted without carefully studying our own sample when running cross-cultural studies.

5.2. Sharing Negative Knowledge (mistakes)

In general, participants from all 4 cultures felt uncomfortable revealing their own mistakes compared to a friend’s mistake. Our hypotheses H1 are H2 are both partially supported.

5.2.1. Revealing own mistake (H1): Results from sharing personal mistakes indicated that all 3 collectivism cultures scored higher than the U.S. though only Thai-U.S. and Thai-China pairs were significant. Participants’ comments on “What are the main factors behind your answer” provide an understanding of their motivations.

Thailand participants showed the most willingness to reveal their own mistakes. Their comments showed that two factors contributed to this: concern for the company (collective factor) and the fear of punishment for not revealing mistakes when needed (individual factor). “Losing face” is also a barrier to sharing, but as Thai participants reported “…maybe not directly, so I don’t fully lose face and at the same time enough information/hints will be shared to inform the team in the other plant not to make the same mistake.” Here is another example, “…sharing the learning aspect and avoiding repeating the same mistakes and reciprocally learning from their peers too.”

U.S. participants showed the least willingness to reveal their own mistakes. Their comments showed that the biggest barrier is job security, particularly in an insecure job market or in a period of economic crisis. Job security was not mentioned at all by Thai participants. This could possibly be attributed to the good union system in Thailand. Other individual factors like harm to personal success, losing a promotion, fear, embarrassment, shame, and “saving face” were also mentioned as barriers to revealing personal mistakes.

Bahrain and Thai participants showed a similar willingness to reveal personal mistakes. Factors from their comments are quite similar to Thailand too. Job security was not mentioned, rather, they offered positive factors for sharing: such as values of honesty, integrity and ethics (individual factor), and benefit to the group (collective factor). Saving face was also a concern, but they would still be willing to share. “I will reveal the mistake but in a very protective way, for instance stating that it was a group decision not a single person decision…”

Chinese participants revealed mixed factors to sharing own mistakes. Sharing factors include: personal integrity, professional ethics, and the company’s interest. Barrier factors include: job security, competition, fear of punishment, and “losing face”. Though many times participants mentioned that “team/company interest is before individual interest”, they still chose a low value for willingness to share because of self-protection and job competition. As reflected in their comments, rapid economic development and a huge population put excessive pressure on Chinese job markets and it becomes a major factor in Chinese people’s attitude toward knowledge sharing.

5.2.2. Revealing a friend’s mistake (H2): Our data showed that U.S., the culture low on LTO participants, were significantly more willing to share a friend’s mistake than the other 3 cultures, especially when compared to China, the culture high on LTO. The open-ended comments from participants revealed different reasons for not fully revealing a friend’s mistake.

U.S. participants expressed some new reasons for their willingness to reveal a friend’s mistake. The main factor is related to receiving recognition or reward, a salary increase or promotion, and being seen as a hero, some even mentioned super hero (individual factor)!

Participants from Thailand, Bahrain, and China expressed similar reasons for revealing a friend’s mistake to the reasons given for revealing
personal mistakes. They stated that “revealing a mistake of a friend is like revealing my own mistake”, “he and his friend are the same”. However, they would share slightly more than if it was their own mistake, since they would not have to worry about “losing face.” Reasons for not fully revealing a friend’s mistake include: the concern over maintaining a long-term friendship, (so that “friend would not lose the face” or “they will make sure that there is no way that the friend will be recognized or identified.”), and the concern of the applicability to the company (“things that happened in the friend’s companies might not be seen as relevant or trustworthy as if they had happened in their company”). Loyalty to a friendship was reported as very important and is a barrier for sharing a mistake.

5.3. Sharing expertise with in-group/out-group relationships

H3 is confirmed. In our study, three in-group relationships were designed to see which factor(s) (culture, work or both) are strong predictor(s) for in-group effect. As shown in our results, in-group effect was significant for vertical cultures (China and U.S.), in which the Chinese and U.S. participants were more willing to share with in-group (both culture and work) and in-group (work) relationships than out-group and in-group (culture) relationships, but were not significant for horizontal cultures (Thailand and Bahrain), in which Thailand treats all three in-group relationships equally while Bahrain participants treat all in-group/out-group relationships equally.

H4 is not confirmed. Participants from high LTO cultures (China) were actually less willing to share professional knowledge than low LTO cultures (Thailand, U.S.) as shown in Figure 5. Comments from Chinese participants revealed plausible reasons. The in-group relationship between the two engineers in scenario 2 was not perceived as a strong in-group relationship by the Chinese, who reported that they would withhold expertise for the fear of future competition with the friend even though in the instructions we told them that the two engineers are the same. However, they would share slightly more than if it was their own mistake, since they would not have to worry about “losing face.” Reasons for not fully revealing a friend’s mistake include: the concern over maintaining a long-term friendship, (so that “friend would not lose the face” or “they will make sure that there is no way that the friend will be recognized or identified.”), and the concern of the applicability to the company (“things that happened in the friend’s companies might not be seen as relevant or trustworthy as if they had happened in their company”). Loyalty to a friendship was reported as very important and is a barrier for sharing a mistake.

6. Conclusions

Three of the four postulated hypotheses were confirmed, illustrating the influence of national culture and in-group / out-group relationships on knowledge sharing. Among our key findings, we noticed that people (all 4 nationalities) were more willing to share a friend’s mistakes than their own in order to help others. The collectivist countries studied were more willing to share their own mistakes whereas the individualist country (U.S.) was more willing to share a friend’s mistake. For sharing mistakes, our study indicated that the main withholding factors were job security, competition, fear of punishment and “losing face” (not as strong as expected and less strong than collectivism values).

For sharing expertise, our study showed that factors like in-group (work experience) has a stronger effect on knowledge sharing than in-group (culture). Comments from Chinese respondents highlighted the fact that in-group work experience was important, but that the strength and “quality” of the relationship also had an effect on the amount of knowledge shared. This social dimension is often referred as “Guanxi” orientation and it is very influential in Confucian oriented societies.

7. Limitations

Our study focused only on the IDV and LTO dimensions of the Hofstede’s taxonomy and which did not fully allow us to explain and understand the differences in knowledge sharing patterns between the various countries. The use of a small sample of students, even though they had working experience, might not fully reflect the culture of a country. Additional validation of our findings will be required before any generalization.
8. Implications for practice

It is clear that organizations which want to succeed in their KM initiatives should create a risk free climate so employees will feel more comfortable sharing their mistakes, and so learning can take place and mistakes will not be repeated. Rewarding employees for sharing mistakes and expertise could certainly be an incentive for sharing knowledge. Helping employees to socialize and to build relationships is also very important. Organizations should create opportunities and mechanisms (physical and/or virtual) for employees to collaborate and to build strong relationships. As far as knowledge sharing with people from different cultures, it doesn’t seem to be a barrier if a working relationship was established beforehand. The concept of trust also plays an important role in relationship building and knowledge sharing.

In term of KM technologies, the participation in online communities of practices for employees of multinational corporations are also affected by cultural values, as initially investigated by Ardichvili et al. [4]. Bhagat [10] also argues that the collectivism-individualism dimension affect the type of knowledge people prefer and are more prepared to process (tacit (collectivist) and explicit (individualistic)). In order for knowledge transfer, knowledge sharing, communication and learning to succeed and to be effective among global teams in multinational corporations, more advanced research should be conducted to validate on a larger scale our initial findings, but also to indentify other cultural factors that might be influential.

9. Implications for theory

Our study contributes to theory since it shows that different cultures might behave differently in terms of sharing their expertise/mistakes in in-group/out-group relationships. Very few studies looked at the sharing of mistakes aspect (negative knowledge) and we believe that this study is a first attempt to look at this critical aspect of knowledge sharing.

10. Future Research

Some researchers have previously claimed that Hofstede’s taxonomy might be too aggregated for examining management practices and behaviors [8, 17, 18]. The assessment of the open questions was a great help to better understanding the rationale behind different cultural behaviors.

We suggest for future research to consider the use of alternate and additional taxonomies of culture. Another related future research question is whether the cultural convergence [19] has shifted global culture to be competitive after Hofstede’s research in late 1980s, and knowledge sharing helps with that.

Based on our results, and going through an extensive literature review, we noticed that the well accepted cultural typologies for each country sometimes vary among various research results and might vary over time. For instance, the traits and values of emerging and developing countries are evolving and are influenced by globalization. Furthermore, individual behaviors cannot be fully explained by cultural values, so we recommend to not fully rely on past national cultural typology scores, but to assess the cultural traits of your sample that may also vary depending on geographical and economical parts of a country (i.e., rural versus city).

We also recommend assessing corporate culture, since its impact and interaction with national culture on knowledge sharing behaviors might be influential.

11. References

[8]. Chow, C.W., F.J. Deng, and J.L. Ho, The Openness of Knowledge Sharing within Organizations: A Comparative Study of the


