

Cross-Cultural Differences in Thought and Risk Behavior – Implications for Safety Management

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ABSTRACT

It is expected that cross-cultural difference matters in thoughts and risk behaviors of corporate, finance, investment, and management, etc. Therefore, the decision making in management of a variety of social activities such as corporate management, finance, investment should be conducted by taking the cultural differences into account. This paper reviewed past studies on cross-cultural differences in thoughts and risk behavior and gave some implications for irrational decision making that took account of cross-cultural differences especially in safety management.

Keywords: Cross-cultural difference, Thought, Risk behavior, Risk averse, Risk taking, Safety management

INTRODUCTION

It has been pointed out that thoughts are affected by culture. While eastern Asian people have a more holistic way of thinking, western people have a more focused analytic way of thinking (Nisbett, 2004). Western people cannot see the forests for the trees, they infer causes based on effects, and they cannot review the overall situation before discussing the details. Western people tend to behave based on internal attributes. On the other hand, eastern people cannot see the trees for the forests. Eastern Asian people tend to behave based on the interaction between internal attributes and situational factors. They also assume more complexity than Western people, and tend to have comprehensive belief. In summary, Western people cannot see the forests for the trees, which generally means that they cannot re-view the overall situation before discussing the details, and that they seem to infer causes based on effects. To the contrary, eastern people cannot see the trees for the forests and tend to have comprehensive belief and thus judge that they cannot know trees without seeing forests.

The cross-cultural difference in thought is expected to lead to the cross-cultural difference in risk behavior. We have already clarified cross-cultural differences in baseball game and working hours (Murata, 2021; Murata, 2018; Murata, 2019). Cross-cultural differences are also identified in a variety of fields such as corporate, finance, investment, policy making, management, or traffic behavior. It has been pointed out that individualism has a

positive association with corporate risk-taking, whereas uncertainty (risk) avoidance and harmony have negative associations with corporate risk-taking. It has also demonstrated that apparent differences in risk preference in buying prices for risky financial options were associated primarily with cultural differences in the perception of the risk of the financial options. The cross-cultural differences in simulated driver risk-taking behavior have also been clarified. The frequency of risk-taking behavior differs among countries. Risk-taking is found to be higher for domestic firms in countries with low propensity of risk aversion and high individualism (cannot behave more holistically).

In this manner, it is expected that cross-cultural difference matters in thoughts and behaviors of corporate, finance, investment, and management, etc. This paper reviewed cross-cultural differences in thoughts and risk behavior and gave some implications for irrational decision making that took account of cross-cultural differences especially in safety management.

CROSS-CULTURAL DIFFERENCE IN THOUGHTS

As mentioned in Murata (2021), the cultural difference of the way of thinking between western and eastern people can be described as follows. It is believed that western people generally cannot see the forests for the trees, which indicates that western people are good at discussing the details of events or things, but are unable to review the overall situation. Western people also seem to infer causes based on effects. They tend to infer causes from effects, think simply. On the other hand, it is said that eastern people are different from western people and they cannot see the trees for the forests like western people and tend to be based on the thought that they cannot understand trees without seeing forests. They are apt to see forest (a system as a whole) instead of examining the details (a tree).

Murata (2018, 2019) discussed the difference of Free Agency (FA) System between MLB and NPB (Nippon Professional Baseball) and cognitive biases of sports management between MLB and NPB. Whiting (1977, 1989) showed that group harmony in Japanese high school and NPB caused holistic way of thinking (see forest instead of trees) opposite to MLB leading to individualism (see trees instead of forest) and caused the difference of a variety of systems such as FA and management of players between MLB and NPB. He concluded that such a cultural difference is reflected in the difference of training hours and spiritualism toward baseball between MLB and NPB. The differences are pointed out as follows:

- (1) While Japanese high school baseball organization doesn't mind at all to make players play at a stadium under severe heat, US baseball coaches never make their players play under severe heat for protecting players' health.
- (2) While long training duration is widespread in Japan, US never promotes long training hours
- (3) While throwing restriction of a pitcher is strictly enforced and the number of pitches is restricted in US, players are required to pitch without

throwing re-strictions and with spirit and grit even if they have a risk to develop a pain in their shoulder.

- (4) Japanese high school baseball is expressed by a famous word “joint responsibility” This is representative of holistic way of thinking. The baseball team as a whole must take responsibility (for example, the team is not permitted to participate in a variety of competitions for some period) for the undesirable anti-social act taken by a few members of the team. US does not apply such joint responsibility to a team.

Such a cross-cultural difference in thought (see trees instead of forests or see forest instead of trees) might lead to the difference of risk behaviors, which will be mentioned in the next chapter.

CROSS-CULTURAL DIFFERENCE IN RISK BEHAVIORS

Generally, people, irrespective of culture, is believed to have the same basic cognitive processes. However, it has been pointed out that thoughts are affected by culture. While eastern Asian people have a more holistic way of thinking, western people have a more focused analytic way of thinking. Western people tend to behave based on internal attributes. On the other hand, eastern Asian people tend to behave based on the interaction between internal attributes and situational factors. In summary, Western people cannot see the forests for the trees, which generally means that they cannot review the overall situation before discussing the details, and that they seem to infer causes based on effects. To the contrary, eastern people cannot see the trees for the forests and tend to have comprehensive belief and thus judge that they cannot know trees without seeing forests.

The cross-cultural difference in thought is expected to lead to the cross-cultural difference in risk behavior. We have clarified cross-cultural differences in baseball game and working hours. Cross-cultural differences have also been identified in a variety of fields such as corporate, finance, investment, policy making, management, or traffic behavior. It has been pointed out that individualism has a positive association with corporate risk-taking, whereas uncertainty (risk) avoidance and harmony have negative associations with corporate risk-taking. It has also demonstrated that apparent differences in risk preference in buying prices for risky financial options were associated primarily with cultural differences in the perception of the risk of the financial options. The cross-cultural differences in simulated driver risk-taking behavior have also been clarified. The frequency of risk-taking behavior differs among countries. Risk-taking is found to be higher for domestic firms in countries with low propensity of risk aversion and high individualism (cannot behave more holistically).

Griffin, Yue, and Zhao (2013) showed that individualism tends to increase risk-taking behavior, whereas harmony tend to induce risk averse behavior, and concluded that culture plays an important role on whether an organization takes a risk or is risk averse. Weber and Hsee (1998) showed that Chinese were significantly less risk-averse in their pricing of risky financial options than Americans. Weber and Hsee (1999) investigated cross-national

differences in risk taking among Republic of China and the United States. Sivak, Soler, and Trankle (2009) investigated differences in simulated driver risk-taking behavior among U.S., Spanish, and West German subjects, and demonstrated a cross-cultural difference in risk behavior among three countries. Mihet (2012) investigates the effects of national culture on firm risk-taking, using a comprehensive dataset of 51 countries, and found that risk taking is dominant for domestic firms in countries with low risk aversion and high individualism. Fan and Xiao (2006) compared the risk-taking attitude and behavior between Chinese and US workers. Chinese were more risk tolerant than Americans in their financial decisions both in attitude and behavior. Zinkhan and Karande (2010) discussed cultural and gender differences in risk-taking behavior among American and Spanish. Kloepa, Guneyb, Cokb, and Simsek (2009) discussed cross-cultural difference of risk-taking in adolescence.

Czerwonka (2019) analyzed the susceptibility to risk-taking behavior in relation to cultural traits and found that Polish students reported significantly greater proneness to risk-taking than their American counterparts. Booth and Nolen (2009) showed that there existed gender differences in their propensity to choose a risky outcome because of innate preferences or because their innate preferences are modified by pressure to conform to gender-stereotypes. Kai, Griffine, Heng, and Longkai (2013) investigated the role of national culture in corporate risk-taking, and concluded that even in a highly globalized world with sophisticated managers, culture plays an important role in risk behavior. Kopp (2021) showed Japanese cultural traits, that is, risk averseness is responsible for certain successes of Japanese organizations, such as a high level of quality and carefully considered decision-making. Derecskei (2018) showed that the cultural heritage impacts various decisions. Chen, Ba, and Kwak (2020) investigated the neurocognitive processes underlying economic decision making in East Asians and European Americans with an aim to understand the cross-cultural differences in the discrete mental processes of decision making. They suggested that Americans make conscious efforts to be self-reliant when facing financial losses, whereas Asians are more emotionally aroused by financial gains, which invites a refinement to the current theoretical propositions about cultural influence on decision making.

To summarize, the following viewpoints recognized in business, finance, investment, and management can be enumerated:

- (1) There exist certainly cross-cultural differences between western and eastern people in many aspects such as investment, finance, and traffic behavior.
- (2) Eastern people are more averse to risks in a variety of economic activities such as investment, finance, or corporate management than western people.
- (3) Such cross-cultural differences come from the following difference of way of thinking between West and East:

- a. “can’t understand the part without understanding the whole” (Eastern) vs. “focus on salient objects or people instead of the large picture” (Western),,
 - b. “preference for being harmonious with a group” (Eastern) vs. “insisting on freedom of individuals” (Western) ,
 - c. “feel embedded in in-group and distant from out-group” (Eastern) vs. “don’t distinct between in-group and out-group” (Western),
 - d. “assume complexity” (Eastern) vs. “assume simplicity” (Western) ,
 - e. “context” (Eastern) vs. “outcome” (Western), and
 - f. “less vulnerable to illusion of control” (Eeastern) vs. “more vulnerable to illusion of control” (Western).
- (4) The cross-cultural difference of risk behaviors are inferred to come from such a cross-cultural difference of way of thinking mentioned in (3) above, and such cross-cultural differences should be considered carefully when discussing risk taking decisions or behaviors.

As mentioned in Chapter 2, the cross-cultural differences are also reflected in the differences between NPB and MLB.

IMPLICATIONS FOR DECISION MAKING THAT TAKES ACCOUNT OF CROSS-CULTURAL DIFFERENCES IN THOUGHT AND RISK BEHAVIOR IN SAFETY MANAGEMENT

The cross-cultural differences in thoughts and risk behavior were summarized, and we suggested that cross-cultural differences in thoughts and risk behavior should be taken into account to behave appropriately and rationally in a variety of corporate management activities, investment, and finance. Such a property should be considered not only in the field of business but also in safety management. Therefore, it is expected that the cross-cultural difference in thoughts (for example, “totalism” vs. “individualism”, or “context” vs. “outcome”) potentially affect the choice of risk taking behaviors, the perceived risk, or the risk attitude (risk averse or risk taking) and lead to irrational decisions (optimism or risk taking) or insufficient preparation for disasters or crashes in safety management.

The cross-cultural difference in risk perception, risk attitude, or risk behavior give rise to a different attitude toward safety management. For example, an excessive optimism or unconscious risk taking hinder the preparation for the undesirable and unexpected events such as a station blackout (SBO) that could occur with a very low probability of occurrence. As many disasters or crashes are triggered by risk taking behaviors, it must be noted that cross-cultural difference is vulnerable to irrational thoughts or risk taking. Therefore, safety management should be appropriately conducted with careful caution to irrational thoughts and risk taking behaviors accelerated by cross-cultural difference in thoughts and risk behavior or attitude. The discussion tells us that cross-cultural differences are crucial factors to be managed appropriately in risk and safety management activities to scrutinize whether cross-cultural differences of an individual decision makers or organizations trigger a risk taking behavior that causes disasters or crashes.

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CONCLUSION

This paper reviewed past studies on cross-cultural differences in thoughts and risk behavior and gave some implications for irrational decision that took account of cross-cultural differences especially in safety management.

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As it is plausible that the cross-cultural difference in risk perception, risk attitude, or risk behavior forces people or organizations to take a risk that hinders safety. The tight-knit community of legislators, regulators and TEPCO must have affected by their culture to emphasize the harmony of whole community (staff cannot dissent to the policy of the community even if staff recognize the risk of unexpected event such as an SBO and countermeasures for such events should be taken) and have led to excessive optimism or unconscious risk taking that did not prepare for the undesirable events such as an SBO with a very low probability of occurrence.

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