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Learning style differences between Japan and Thailand: A case of Japanese multinationals

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Abstract

We compared various aspects of learning styles between Japan and Thailand through the lens of experiential learning theory. A total of 398 participants who work for Japanese multinational corporations were surveyed and examined with controlling age, gender, work experience periods, and hierarchical management positions. Results showed that the two country difference significantly impacted all learning style variables concerning a dialectical learning dimension of feeling and thinking, In the process of learning, for example, Japanese employees learned through more feeling and less thinking, whereas Thai employees learned equally applying the four learning modes of feeling, thinking, reflecting, and action. Although the learning style of Japanese employees indicated diverging on average, the analysis of their learning style distribution revealed that accommodating was most dominated. Thai employees were categorized in accommodating learning style that was not so specialized at feeling and acting modes. Instead, they possessed balanced learning style as their distinctive characteristic. Based on those findings, we discussed theoretical and practical implications.

Keywords

Learning styles; specialized vs. balanced orientation; Japan; Thailand; Japanese multinationals

1. Introduction

Learning involves creating knowledge and adapting to the world. At the age of globalization, there is no room to doubt that the learning of global employees working for multinational corporations (MNCs) is a critical study in the area of international management. The learning study has been widely conducted in a variety of research topics that include global leadership development (Hollenbeck and McCall, 2001; McCall and Hollenbeck 2002), early identification of global executives (Spreitzer, et al., 1997), expatriate knowledge and skills (Yamazaki and Kayes, 2004), the role of cultural intelligence (Ng, et al., 2009), and so on.

Among the learning studies, learning styles may be thought to become one of the most important research subjects. A main study theme about learning styles associated with globalization and international management represents and relies on the following assumption that learning styles vary across cultures and countries. This assumption has been positively supported by a theoretical analysis (see, Yamazaki, 2005) and empirical comparative studies (see, Auyeung and Sands, 1996; Barmeyer, 2004; De Vita, 2001; Hayes and Allinson, 1988; Holtbrugge and Mohr, 2010; Pratt, 1991; Jackson, 1995; Jaju, et al., 2002; Joy and Kolb, 2009; Yamazaki and Kayes, 2007, 2010; Yuen and Lee, 1994). While a larger number of comparative studies were made with emphasis on academic contexts, there are relatively fewer studies concentrating on business contexts, particularly using MNCs and their global workforces. Because learning styles are determined in accordance with a contextual situation (Kolb, 1984), learning style researches should be done more concerning the context of MNCs, which are major players at present globalization. In this study, therefore, by focusing on global workforces of Japanese based MNCs, we aim to investigate learning style similarities and differences between Japan and Thailand.

Our study emphasizes host country nationals of MNCs. In many MNC subsidiaries, host

country nationals have become more competitive and important than in the past (DeNisi et al., 2006) so that the increasing tendency of host country nationals has appeared (Briscoe et al., 2009) for not only non-managerial jobs but also managerial assignments. In fact, in replacement of expatriates (Korbin, 1988), a greater number of host country nationals are hired in subsidiaries of a larger size of MNCs (Briscoe et al., 2009) for managerial positions of the middle and lower level ranks for foreign operation (Hodgetts and Luthans, 2003). The use of host country nationals is strategically important for MNCs, especially Japanese MNCs to become strong competitors in the race of global talent (Beamish and Inkpen, 1998). As a consequence, those MNC circumstances have allowed us to pay much attention to host country nationals, particularly with regards to how they learn and adapt to their work settings of MNCs, because learning is a process of adaptation to environmental situations (Kolb, 1984). Therefore, our study focus is on learning styles of Thai employees as host country nationals, in comparison with those of Japanese employees as home counterparts of MNCs.

Past comparative studies about learning styles across cultures and countries have largely neglected two aspects of learning style examinations. The first aspect describes the distribution of learning styles within study groups of cultures and countries, explaining which learning styles are most and least dominated in a certain group. There are a few comparative studies that show the distribution of learning styles such as the study of Barmeyer (2004) about German, French, and Quebec students. But this study dealt with an academic context. Other studies were done in MNC business contexts but just described a representative learning style across countries (Yamazaki and Kayes, 2007, 2010). Their studies are insufficient in order to understand a whole picture about learning style situation occurred in a country of MNCs.

The second neglected aspect of learning style examinations is to investigate how people are specialized or balanced learners. This learning style dimension of specialized vs. balanced is also

important because this dimension relates to cultural differences (Yamazaki and Kayes, 2010). In addition, analysis using this learning dimension shows us how people are adaptively flexible (Mainemelis et al., 2002), so that it is thought to provide a useful insight in cross-cultural adaptation. Consequently, by analyzing learning style distribution as well as the dimension of specialized vs. balanced learning styles, we will be able to grasp a more entire and accurate picture of learning styles of employees in MNCs across cultures and countries. Taken together in this session, our research questions are raised as follows:

Research questions. How do Thai learning styles as host country nationals differ from Japanese learning styles as home counterparts of MNCs?

2. Learning styles and culture/country

2.1.Learning styles

More than three decades, many educators and researchers have studied learning styles as a way of exhibiting individual differences in learning (Desmedt and Valcke, 2004). The term "learning style" used in this way is thought to include constructs that explain about an approach to individual learning (Price, 2004). There are a number of different definitions of learning style that have been discussed and presented (Peterson, et al., 2009; Richardson, 2011). As shown in traditional definitions, by applying a phenomenological stance (Marshall, 1987), Gregorc (1979) defined learning style as distinctive behaviors that relate to how people learn from and adapt to their environment. Keefe (1979) illustrated that learning styles relate to cognitive, affective, physiological characteristics as an indicator of a manner in which people interact with their surrounding environment. One primary trait of learning style can be said about the involvement of a direct interaction between a person and his/her environment (Curry, 1987). Kolb (1984) discussed learning styles as an individual's preferred way in a process of knowledge creation by applying experiential learning processes. Similarly, by adopting an experiential paradigm, Tamir

(1985) referred to learning styles using four cognitive modes. Further, Sadler-Smith (1996) mentioned that learning styles may be a distinctive and habitual way of getting knowledge, skills, and attitudes through experiences or study. More recently, Entwistle and Peterson (2004) showed that learning styles are relatively stable preferences for learning processes. A current survey of learning style researchers indicated that the definitions of learning styles vary with how learning styles are regarded as being relatively stable or malleable (Peterson, et al., 2009). Richardson (2011) concluded that the learning style definition by Entwistle and Peterson (2004) seems to be accurate, reflecting the traditional essence of learning style concept.

Researchers of learning styles categorize different learning styles and types in various manners but their purposes and approaches are not difference (Demirbas and Demirkan, 2007). Felder (1996) discussed that which learning style instrument has been selected is not critical, because of the similarity of the instructional ways around the process of learning. Among various learning style theories, Kolb's (1984) experiential learning theory was chosen for our present study by several reasons. Cassidy (2004) shows learning styles in Kolb's model of learning as the person's intellectual approach to information processing. There were criticisms against Kolb's learning theory (Freedman and Stumph, 1980; Holman, et al., 1997; Metallidou and Platsidou, 2008; Reynolds, 1999; Vince 1998). But it is one of the most influential theories (Duff 2004; Kayes, 2002), especially in terms of management learning (Kayes, 2002), business education (Duff and Duffy, 2002; Yuen and Lee, 1994), international managers' learning (Yamazaki and Kayes, 2004, 2007, 2010), managerial knowledge (Armstrong and Mahmud, 2008), and education in general (Jarvinen, 1998).

2.2.Experiential learning theory

2.2.1. Specialized learning modes and styles

Experiential learning theory encompasses individual affection, perception, cognition, and behavior based on experience that plays a central role of learning processes (Kolb, 1984), so that its learning model can be associated with the entire human activities (Yamazaki, 2005). Learning is defined as "the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p.41). Through learning processes, a person is required to develop specialized learning modes and preferences for learning (Kolb, 1984). There are four key components in the process of learning as specialized learning modes: concrete experience (CE), abstract conceptualization (AC), reflective observation (RO), and active experimentation (AE). The CE mode is a dialectical relationship with the AC mode, whereas the RO is dielectrically opposite to the AE mode (Joy and Kolb, 2009; Kolb, 1984; Kolb and Kolb, 2005). Thus, Kolb's (1984) learning model consists of the two dialectical learning dimensions–the AC vs. the CE and the AE vs. the RO in learning processes.

In the process of learning, the CE mode calls for grasping experience through feelings and sensing, followed by the RO mode, which requires transforming the grasped experience by reflecting and viewing it at various perspectives (Kolb, 1984; Kolb, et al., 2001; Kolb and Kolb, 2005). Then, through analytical reasoning and logical thinking, the AC mode involves grasping the reflected experience and then creating idea and concept, followed by the AE mode that transforms the idea and concept through acting, by which leads to a new experience as a source of learning. In terms of learning mode functions, in short, the CE mode describes feeling abilities; the RO mode refers to reflecting abilities; the AC mode represents thinking ability; and finally, the AE mode involves acting abilities.

At the adulthood learning, a person usually tends to develop by specializing at two learning modes (Kolb, 1984; Mainemelis, et al., 2002). One describes either the CE or the AC mode in one dialectical learning dimension, whereas the other represents either the RO or the AE mode in

the other dialectical dimension. Accordingly, a combination of two specialized learning modes among the four key modes makes the following four basic learning styles (Kolb, 1984; Kolb and Fry, 1975; Kolb, et al., 2001; Kolb and Kolb, 2005).The diverging learning style develops into specialization of the CE and the RO modes. The assimilating learning style specializes at the AC and the RO modes. The converging learning style emphasizes the AC and AE modes. Finally, the accommodating learning style stresses specialization of the CE and the AE modes. Figure 1 shows Kolb's learning model.

Insert Figure 1 about here

2.2.2. Balanced learning styles

Kolb's (1984) learning theory proposes another unique feature of a way of learning in which specialized learning modes are integrated into a balanced learning style (Mainemelis, et al., 2002). While learning styles remain relatively stable (Entwistle and Peterson, 2004; Keefe, 1979), they may change according to individual development and a learning situation of a one's life and career (Kolb, 1984). Integration of specialized learning modes into a balanced style of learning may occur when an unspecialized learning mode is developed in its dialectical learning dimension–the AC (thinking) vs. the CE (feeling) mode or the AE (acting) vs. the RO (reflecting) mode (Mainemelis, et al., 2002). For example, if a person with the accommodating learning style, which stresses the CE and the AE modes, encounters a new learning situation that demands the AC mode, this person is thought to begin to develop the AC mode for his or her adaptation to the new situation. Then, this person would hold the specialization of the three modes of AC, CE and AE. Because the AC mode is dialectically opposite to the CE mode, these two modes must be relatively more balancing than before. In other words, this person would possess a balanced learning style that describes the integrated learning orientation rather than specialized learning

one. When we think about persons with balanced learning styles, they have a learning style of balancing two modes in either the AC vs. the CE dimension or the AE vs. the RO one, or they have that of balancing four modes.

2.3. Learning style differences with cultures and countries

The assumption that learning styles differ with cultures and countries has been discussed and examined in theoretical as well as empirical studies (see, Yamazaki, 2005). Although there are many cultural classification types to describe cultural values (see, Hofstede, 1997; House et al., 2004; Tronpenaars and Hampden-Turner, 1998), the most widely using concept against learning style differences is Hofstede's cultural classification (Holtbrugge and Mohr, 2010). Recently, two comprehensive, empirical studies of learning styles with cultures have been done using more than seven countries. Both provided a valuable insight to understand relationships between learning styles and cultures. The study of Holtbrugge and Mohr (2010) illustrates that the culture of individualism is associated with converging learning styles, while the culture of masculinity is related to assimilating learning styles. The other study of Joy and Kolb (2009) shows that the culture of collectivism is linked with learning styles of the CE over the AC, but it has a marginal relationship with the RO rather than the AE. Further, their study also indicates that the culture of strong uncertainty avoidance is associated with assimilating learning style orientation, that is, more relying on the AC and the RO learning modes.

With regards to learning style differences across countries, the study of Joy and Kolb (2009) describes learning style differences with seven countries such as USA, Italy, Germany, Poland, Brazil, India, and Singapore. Their comparative study illustrates that Italy, Brazil, and Poland are classified as accommodating learning styles; Germany and Singapore relate to assimilating learning styles; India is categorized in converging learning styles; finally, USA is placed in the area of diverging learning styles. There are some other learning style studies connecting countries.

For example, the study of Hayes and Allison (1988) concerned India, UK, and East Africa, illustrating that Indian managers are more analytical orientation than UK and East African managers, while UK managers are the most active, Indian managers are in the middle, and East African managers are in the lowest. As another, Auyeung and Sands (1996) found that Chinese students collected data from Hong Kong and Taiwan are categorized as assimilating learning styles. Similarly, Yamazaki and Kayes (2010) also found that Chinese managers in China are exhibited for their learning style of assimilating. The study of Lam (1998), however, showed converging or accommodating learning styles of sales persons in Honk Kong. Holtbrugge and Mohr (2010) pointed out that some inconsistency occurred with regards to results of learning style studies of a country-basis. This inconsistency may be ascribed to relatively small sample sizes, or no control variables for additional differences (Holtbrugge and Mohr, 2010). In this respect, it seems to be particularly crucial to apply influential control variables for comparative learning style studies of countries with s sufficient number of sample.

2.4. Japanese and Thai learning styles

Our learning style examination focuses on two countries of Japan and Thailand. With regards to Japanese learning styles in the past, there were three studies that include the study about Japanese students (McMurray, 1998) and two studies about Japanese managers (Yamazaki and Kayes, 2007, 2010). All of three studies indicate that Japanese nationals prefer to learn through concrete experience (CE) and reflective observation (RO). Their learning style results are consistent and show that Japanese possess diverging learning styles, even though demographic characteristics differ among these three studies. From a view point of specialization vs. balance learning styles, Japanese managers are more specialized and less balanced than Chinese and Malaysian managers (Yamazaki and Kayes, 2010).

Learning style research about Thai nationals appears very little in publication of journals. When we examined cross-national research about Thai culture, there were several studies that include the study of Hofstede's (1997) cultural dimensions and the GLOBE study of House et al. (2004). According to Hofstede's study, Thailand is categorized as collectivism, femininity, and relatively strong uncertainty avoidance. In addition, Japan is classified as relatively collectivism, masculinity, and strong uncertainty avoidance (Hofstede, 1997). The findings of Hofstede's study might enable us to see how Thai learning styles possibly differ from Japanese ones, but such learning style differences remain inconclusive because of an absence of evidence.

3. Methods

3.1. Research site

We concentrated our learning style studies on Japan and Thailand in Asian-Pacific regions that are now getting more critical for global business and world economy than in the past. The data for analysis of Japanese learning styles were collected from employees of a Japanese MNC in Tokyo, and their responsibilities are to sell products of office machines in a Japanese market. The data for examination of Thai learning styles were collected from employees of a different Japanese MNC that is located in Bangkok. A business line of the Japanese MNC in Bangkok relates to a retail industry to sell consumer products in a Thai market. Although these two Japanese MNCs are different in terms of product lines, their main business function is similar on account of sale and service to their customers in their own domestic markets.

3.2. Sample and sampling procedures

The sample for this study was composed of 398 participants of the aforementioned two Japanese MNCs, with 210 of Japanese employees and 188 of Thai employees. Table 1 summarizes the demographic characteristics of the participating employees of both countries. As shown in Table 1, on average, the Japanese participants were older than the Thai participants.

With regard to gender, a majority of the Japanese employees were male. Conversely, a majority of the employees were female in Thailand. The Japanese had almost 3 times longer work experience of their corporation than the Thai. While those three demographic characteristics of age, gender, and work experience at their Japanese MNC, a ratio of managers and non-managers were very similar between Japanese and Thai.

Insert Table 1 about here

Survey packets were administered by human resource managers of the two Japanese MNCs respectively, and the packets were given to potential participants through the internal delivery system in both Japanese MNCs. A total of 240 survey packets were sent to Japanese employees in Tokyo and 210 were returned as completed and usable questionnaires, with an overall response rate of 87.5 %. This high returned rate seems to be ascribed to our commitment that we present a report based on this survey to the human resource managers of the Japanese MNC. With regards to Thai participants, a total of 350 survey packets were sent to potential Thai participants in Bangkok and 188 were returned as completed and usable questionnaires, with an overall response rate of 53.7 %. A lower rate of Thai employees compared with that of Japanese may be attributed to the timing of this survey conducted around the end of year when their business was busy.

3.3. Measures

We used the Learning Style Inventory (LSI) that was designed to examine individual learning styles (Kolb, 1999). The methodology used in the LSI relies on a forced-choice method, which can reflect the dialectical nature of human learning activities (Kolb, 1984; Hickcox, 1991) and effectively control response sets (Saville and Wilson, 1991). The third version of the LSI used in this study incorporated the changes in psychometrics proposed by the study of Veres et al.,

(1991) illustrating that the earlier version of the LSI showed high test-retest reliability. Kayes (2005) confirmed the improved validity and reliability of this new version.

The LSI consists of 12 questions. Each question asks people to complete a sentence by prioritizing four options that describe four learning modes. For example, the first sentence in the LSI begins with "When I learn," and the four choices to be ranked are "I like to deal with my feelings," "I like to think about ideas," "I like to be doing things," and "I like to watch and listen." These four items show, in turn, the CE mode, the AC mode, the AE mode, and the RO mode of learning. The sum of a number ranked from "4 = you learn most" to "1 = you learn least" on each of four modes correspond to the degree of how much a person relies on each of the four different modes of learning. The total scores, with one sum subtracted from the other in the same dialectical dimension – that is, the value of AC–CE or that of AE–RO – corresponds to a relative preference of examinees between its two dialectical modes. A combination of these two scores produces learning style preference.

The LSI is also designed to examine to what extent people demonstrates balance between two modes of learning in each of the two dialectical learning dimensions: that is, the degree of specialized vs. balancing learning styles (Mainemelis et al., 2002). The absolute value of the scores of one sum subtracted from the other in the same dialectical learning dimension (i.e., |AC–CE| or |AE–RO|) was adjusted for population variation and showed the degree of balanced learning orientation (Mainemelis et al., 2002). An absolute value closer to zero indicates a more balanced learning orientation. In contrast, an absolute value that increases away from zero describes a less balancing and more specialized learning style.

3.4. Translation procedures

The LSI is originally written in English. Thus, we translated the LSI into the two languages: Japanese and Thai so that both national participants would be able to understand and answer

questions more easily. Further, we utilized the Japanese version of the LSI that had been used in past cross-cultural studies (see Yamazaki and Kayes, 2007, 2010). The LSI was translated into Japanese according to the translation procedures for cross-cultural research suggested by Brislin, et al., (1973). Likewise, the similar translation procedures were applied with regard to the Thai version of the LSI for our study, showing the comparison of the meanings between the original English and translated Thai versions as well as the meanings between the original and back-translated versions.

4. Results

Table 2 presents descriptive statistics and correlations among the key variables in this study, including two numeric demographics as well as two categorical items, that is gender and positions, which were coded using a dummy variable such as female = 0 and male = 1; non-management = 0 and management = 1. Among demographic variables, each variable was related with each other, excepting a relationship between gender and positions. This result may suggest that an older Japanese or Thai employee tends to take a higher position and a longer work experience in a Japanese MNC, whose gender has a tendency of being male rather than female. A seniority system might be working at those Japanese MNCs.

Insert Table 2 about here

4.1. Overall cross-cultural learning differences

We analyzed learning style differences between Japanese and Thai employees by using ANOVA. For this analysis, we included the analysis controlling the following 4 items such as age, gender, hierarchical positions, and work experiences. As shown in Table 3, results of this comparative analysis show that there were significant differences between Japanese and Thai employees in terms of all of eight learning style variables that connect the dialectical dimension

of the AC vs. the CE mode. However, learning style variables in relation to the other dialectical dimension of the AE vs. the RO had no significant association with the two-country difference, excepting a balancing learning style of |AE–RO| (without control variables–$F = 9.12$, $p < 0.01$; with control variables–$F = 7.73$, $p < 0.01$). Additionally, in the analysis without control variable, results indicated that there were significant but marginal differences in the AE mode of learning and in the relative preference for the AE over the RO, that is, AE–RO ($p < 0.10$). Although 4 control variables somewhat affected the impact of the two country differences on the eight learning style variables examined, however, none of them was significant against the learning style variables.

Insert Table 3 about here

4.2. Specific cross-cultural differences

4.2.1. Comparison of learning processes and styles

Close examination of these results described in Table 3 will illustrate learning style differences between Japanese and Thai employees as particular characteristics. First, among four learning modes in the process of learning: CE (feeling), AC (thinking), RO (reflecting), and AE (acting), Japanese preferred to use more the CE and less the AC than Thai, while both Japanese and Thai preferred to employ the RO and the AE at the similar level. This result demonstrates a different learning process in relation to the degree of reliance on learning modes between Japanese and Thai employees. Figure 2 shows us how both nationals learn differently by using which learning modes in their process of learning. Japanese more heavily rely on the CE and less do on the AC than Thai, while Thai use all of the four modes with a similar level around the average of 50 percentile of the population.

Insert Figure 2 about here

Results of the mean scores of AC–CE and AE–RO in Table 3 describe the learning style of both Japanese and Thai employees respectively. As an entire group of Japanese employees, they preferred learning through the CE and the RO, the combination of which both scores produces diverging learning style (AC –CE = -5.40 < 4.3 that is a cut-off point in the dimension of the AC vs. the CE; AE–RO = 3.84 < 5.90 that is another cut-off point in the other dimension of the AE vs. the RO). As an entire group, in contrast, Thai employees preferred learning through the CE and the AE (AC–CE = 3.04 < 4.30; AE–RO = 5.97 < 5.90), indicating accommodating learning style. However, both of their scores of AC–CE and AE–RO are so close to the two cut-off points that Thai employees tend to be more balanced learners that will be discussed below in this section.

Further, there was a significant difference in AC–CE between Japanese and Thai ($F = 53.59$, $p < 0.01$ without control variables; $F = 27.30$, $p < 0.01$ with control variables) but a marginally significant difference in AE–RO without control variables ($F = 3.05$, $p < 0.10$) and no significance with control variables ($F = 0.95$, $p > 0.10$). This evidence illustrates that even though their learning styles of the diverging and the accommodation learning styles were placed in the same area towards the CE in the dimension of the CE vs. the AC, the degree of reliance on the AC over the CE would be significantly differed. Conversely, although their learning styles were different in the dialectical dimension of the AE vs. the RO modes, the degree of reliance on the AE over the RO would be similar. This discussion will be depicted visually in Figure 3 that shows us which learning style areas Japanese and Thai stayed.

Insert Figure 3 about here

The mean scores of |AC–CE| and |AE–RO| shown in Table 3 relate to a degree of balancing vs. specialized learning styles between Japanese and Thai employees. Results show that there were significant differences in the both |AC–CE| and |AE–RO|, regardless of with/without control variables. Japanese exhibited a more specialization in their learning orientation in the both learning dimensions than Thai who showed more balance as learners. These results can be also seen in the learning process described in Figure 2 as well as their learning style shown in Figure 3. Japanese employees were skewed more towards the CE (feeling) over the AC (thinking) in both Figures 2 and 3, while Thai employees learned by balancing two modes of learning in both dialectical dimensions.

4.2.2. Comparison of learning style distribution

With regards to Japanese and Thai learning styles as an entire group, the diverging and accommodating as well as the specialized and balancing were identified respectively, but those learning styles did not show us how differently Japanese and Thai employees were dispersed or centralized in certain learning style areas. In order to answer this question, we examined and compared the distribution of learning styles of Japanese and Thai employees by using Chi-square test of independence by four learning styles and two countries. This analysis will explain about a distribution tendency about both of their learning styles.

As shown in Table 4, the results of the Chi-square test indicate that the learning style distribution was significantly related to the two country differences: Japanese and Thai (Pearson Chi-square = 51.41, $p < 0.01$). More specifically, in terms of Japanese employees, the accommodating learning style most occupied with 43% of the total count; the diverging had the second most with 30%; the assimilating held the third most with 19%; and the converging was the least distribution with 8%. Although diverging learning style was a representative of Japanese employees as a whole, Japanese were highly specialized at accommodating learning style as the

largest distribution. Additionally, the specialization of the AC (thinking) and the AE (acting), that is, converging learning styles, was extremely low.

In contrast, the distribution of Thai learning styles appeared more equal than Japanese ones. Thai employees exhibited the converging learning style as the largest distribution with 35%; the diverging as the second largest with 30%; the accommodating as the third term with 20%; and the assimilating style as the smallest group with 16%. Similarly, although accommodating learning style was representative of Thai employees as a whole, the largest and second largest distribution were converging and diverging respectively. It is suggested that only a representative or typical learning style in a country may mislead a way of viewing about how its people or employees learn without understanding the distribution of learning styles. Further, as described in Table 4 about two statistics of percent and adjusted standard residual, comparison of the learning style distribution between Japanese and Thai showed that there was a big difference in the distribution of the two learning styles of accommodating and converging. Figure 4 illustrates the distribution of learning styles of Japanese and Thai employees. It is quite obvious that the distribution of Thai learning styles is more symmetry, while that of Japanese ones is more asymmetry.

Insert Table 4 and Figure 4 about here
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5. Discussion

5.1. Theoretical implications

Our study provides evidence that the learning style differences between Japanese employees as home counterparts and Thai employees as host country nationals by using two different Japanese MNCs. As an entire group of the two nationals, Japanese learned through more the CE (feeling) and less the AC (thinking) than Thai in the process of learning. With regards to learning styles, Japanese exhibited their preference for the CE over the AC and the RO over the AE,

which creates the learning style of diverging. Our study about the learning style of Japanese is consistent with previous studies of McMurray (1998) and Yamazaki and Kayes (2007, 2010). It can be therefore concluded that Japanese, as a whole group, tend to possess diverging learning style with the specialization of the CE mode of learning in particular. However, we should not become stereotyped to view this certain Japanese way of learning because their preferred learning styles were more dispersed and specialized, as discussed earlier, because the majority of Japanese learning style was accommodating in the study of the learning style distribution. This perspective is also applicable to see the learning style of Thai employees or provably other countries' people. Accordingly, future learning style research across countries or cultures should pay more attention to the distribution of learning styles as inclusive analysis. Such research provides a more overall and accurate picture of learning styles of countries or cultures.

Thai employees showed more balanced learners who use, with relative equal, four learning modes in the process of learning. Although the learning style of Thai was accommodating whose style specializes at the CE over the AC and the AE over the RO, their learning preferences were not so particularly inclined towards the CE or the AE on account of their balancing orientation. Their balancing learning tendency is distinctively difference from Japanese, but it might be similar to that of Malaysian managers in the study of Yamazaki and Kayes (2010). The study of Adams, et al. (2005) suggests that teams composing of balancing learning styles may perform better on complex jobs than those made up of similar learning styles. Thai teams may be able to take the advantage of dealing with difficult tasks. As another advantage, balanced learners have an ability of adaptive flexibility in learning situations (Mainemelis et al., 2002). Thai host country nationals in Japanese or other MNCs may be able to flexibly adapt to different job situations. Further, Thai host nationals may be also able to make a better decision individually. Those who have balancing learning style produce a creative tension internally and their decisions

reflect various views and idea. This is a similar in effect to Chinese managers whose culture is embedded in Confucianism (Yamazaki and Kayes, 2010).

Accommodating learning styles strongly relate to a higher level of accumulated managerial tacit knowledge as a successful factor of managers than other learning styles (Armstrong and Mahmud, 2008). In this respect, Japanese MNCs in Japan may take a more advantageous position of their human resources to develop better managers because the most dominant distributed learning style tends to be accommodating. But when we think about team performance, Japanese MNCs should also consider team composition with carefulness. Adams, et al. (2005) discuss that teams including heterogeneous specialized learning styles may demonstrate a better performance than the four teams with homogeneous learning styles. This notion is strategically important for Japanese MNCs in Japan. Although they can benefit from teams made up of their employees with heterogeneous and specialized learning styles, they should avoid producing a homogeneous team like the one with only accommodating learning style as their major distribution of learning style.

5.2. Practical implications

Findings of this study can be linked with activities of human resource management of MNCs in Asia where training and development have become more important to business and policy makers (Rowley and Warner, 2004). Since MNCs need to take into consideration about employees' most comfortable learning approach for corporate trainings across countries (Briscoe et al., 2009), human resource professionals should create a better learning environment where to match with learning styles of country nationals. For example, on-the-job trainings by learning from experiences seem to work well for Japanese employees, who prefer to learn using the CE mode of learning. Additionally, in-class-trainings sessions may be more effective in providing a number of concrete stories and specific incidents for Japanese leaners. For a learning environment to Thai employees, human resource professionals may have to consider making a

variety of job training methods rather than being inclined towards one way, even though balanced learners could be adaptively flexible. Such instructional variations would provide benefits for Thai balanced learners who can generate interests and feel comfort when they learn from the different educational ways.

Another practical implication concerns management of international assignees as the form of expatriation or inpatriation across countries. Human resource professionals of MNCs, particularly in their headquarters, may have to select proper international assignees from numerous host employees over the world to best fit to strategic intent of the MNCs. Although successful overseas adaptation requires multiple knowledge and skills (Yamazaki and Kayes, 2004), human resource professionals should consider learning styles as one factor that impacts effective learning and adaptation. Because balancing learning styles possess adaptive flexibility in different learning situations, it seems that Thai host country nationals may become an eligible candidate as international assignees among other host country nationals. In addition to application of balancing learning styles like Thai employees, our study of learning style distribution of country is also important for human resource professionals to understand to what extent are dominated by certain learning styles. Yamazaki and Kayes (2007) discuss that the CE (feeling) mode is positively related to acquisition of English, which is thought to be main communication language abroad. When human resource professionals need to transfer Japanese home employees to other countries, they should strategically choose Japanese who have learning style of accommodating or diverging that specializes at the CE (feeling). Further, the international selection of Japanese employees with accommodating learning styles may work well due to their accumulated managerial tacit knowledge that leads to effective management.

5.3. Limitations

A major limitation of this study concerns the sample that was drawn from two different Japanese MNCs. Although their business area was relatively similar in terms of consumer market industries, the same Japanese MNC will be better for a comparison between home and host employees dealing with common products and services. In order to generalize learning styles between Japan and Thailand, investigation of other industries but the same MNCs is essential. In addition, other country based MNCs such as China, Korea, India, or etc. would provide valuable insight into how such country differences as parent corporations affect the formation of learning styles of host and home employees in the area of international management.

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Table 1. Demographic characteristics of participants.

	All		Japanese employees		Thai employees	
N	398		210		188	
Age						
mean	35.0		38.0		31.6	
s.d.	10.0		10.2		8.5	
Gender						
Male	249	62.6%	182	86.7%	67	35.4%
Female	149	37.4%	28	13.3%	121	64.6%
Work experience at the MNC						
mean (months)	132.7		196.0		62	
s.d.	129.2		136.4		71.7	
Positions						
Management	144	63.8%	80	38.1%	64	66.0%
Non-management	254	36.2%	130	61.9%	124	34.0%

Table 2. Descriptive statistic and correlation matrix among key variables.

		mean	*s.d.*	1	2	3	4	5	6	7	8	9	10	11
1	Age	34.97	9.91											
2	Gender (female=0, male=1)	0.63	0.50	0.31**										
3	Work experience (months)	132.70	129.23	0.83**	0.40**									
4	Positions (non-MGT=0, MGT=1)	0.36	0.48	0.59**	0.09	0.54**								
5	CE	29.28	6.52	0.08	0.20**	0.18**	0.00							
6	AC	27.87	7.36	-0.07	-0.10*	-0.15**	0.01	-0.55**						
7	RO	29.05	6.28	-0.04	0.03	-0.01	-0.09	-0.20**	-0.08					
8	AE	33.90	7.56	0.03	-0.09	0.00	0.09	-0.14**	-0.42**	-0.55**				
9	AC-CE	-1.41	12.22	-0.09	-0.17**	-0.18**	0.01	-0.86**	0.89**	0.06	-0.18**			
10	AE-RO	4.85	12.21	0.04	-0.07	0.01	0.10*	0.02	-0.22**	-0.86**	0.90**	-0.14**		
11	|AC-CE|	10.53	8.21	0.12*	0.30**	0.24**	-0.03	0.58**	-0.49**	-0.03	-0.01	-0.60**	0.01	
12	|AE-RO|	10.11	6.93	0.03	0.05	0.04	-0.03*	-0.05	0.19**	0.29**	-0.39**	0.13**	-0.40**	0.01

*$p < 0.05$, **$p < 0.01$

Table 3. Results of ANOVA about learning style variables.

	CE		AC		RO		AE		AC-CE		AE-RO		|AC-CE|		|AE-RO|	
	mean	*s.d.*	*mean*	*s.d.*	*mean*	*s.d.*	*mean*	*s.d.*	*mean*	*s.d.*	*mean*	*s.d.*	*mean*	*s.d.*	*mean*	*s.d.*
Japanese employees (N = 210)	31.32	7.08	25.92	8.86	29.46	7.11	33.30	7.78	-5.40	14.45	3.84	13.18	15.04	8.39	11.10	7.39
Thai employees (N = 188)	27.00	4.95	30.04	4.25	28.60	5.20	34.57	7.26	3.04	6.78	5.97	10.96	5.50	4.06	9.02	6.20
	F		*F*		*F*		*F*		*F*		*F*		*F*		*F*	
Country without control variables	48.66	**	33.73	**	1.89		2.81	+	53.59	**	3.05	+	200.85	**	9.12	**
Country with control variables	21.38	**	19.88	**	0.93		0.59		27.30	**	0.95		118.05	**	7.73	**
Control variables																
Age	0.29		0.39		0.16		0.08		0.91		0.14		0.94		0.34	
Gender	0.58		1.35		0.00		1.31		0.17		0.53		0.08		0.26	
Positions	0.84		0.21		2.03		1.88		0.15		2.51		0.03		0.25	
Work experience	0.35		0.71		0.12		0.02		1.05		0.76		0.01		0.49	
Adjusted R^2	0.10		0.07		0.00		0.01		0.11		0.01		0.33		0.01	

$+p < 0.10$, $*p < 0.05$, $**p < 0.01$

Table 4. Results of the chi-square test of independence by learning styles and two countries.

	4 Learning Styles				Pearson
	Accommodating	Diverging	Assimilating	Converging	Chi-square
Japanese employees (N = 210)					
Count	91	63	39	17	51.41 **
% within this nationals	43%	30%	19%	8%	
Adjusted standard residual	5.0	0.0	0.7	-6.5	
Thai employees (N = 188)					
Count	37	56	30	65	
% within this nationals	20%	30%	16%	35%	
Adjusted standard residual	-5.0	0.0	-0.7	6.5	

**$p < 0.01$

Figure 1. Kolb's learning mode and learning styles.

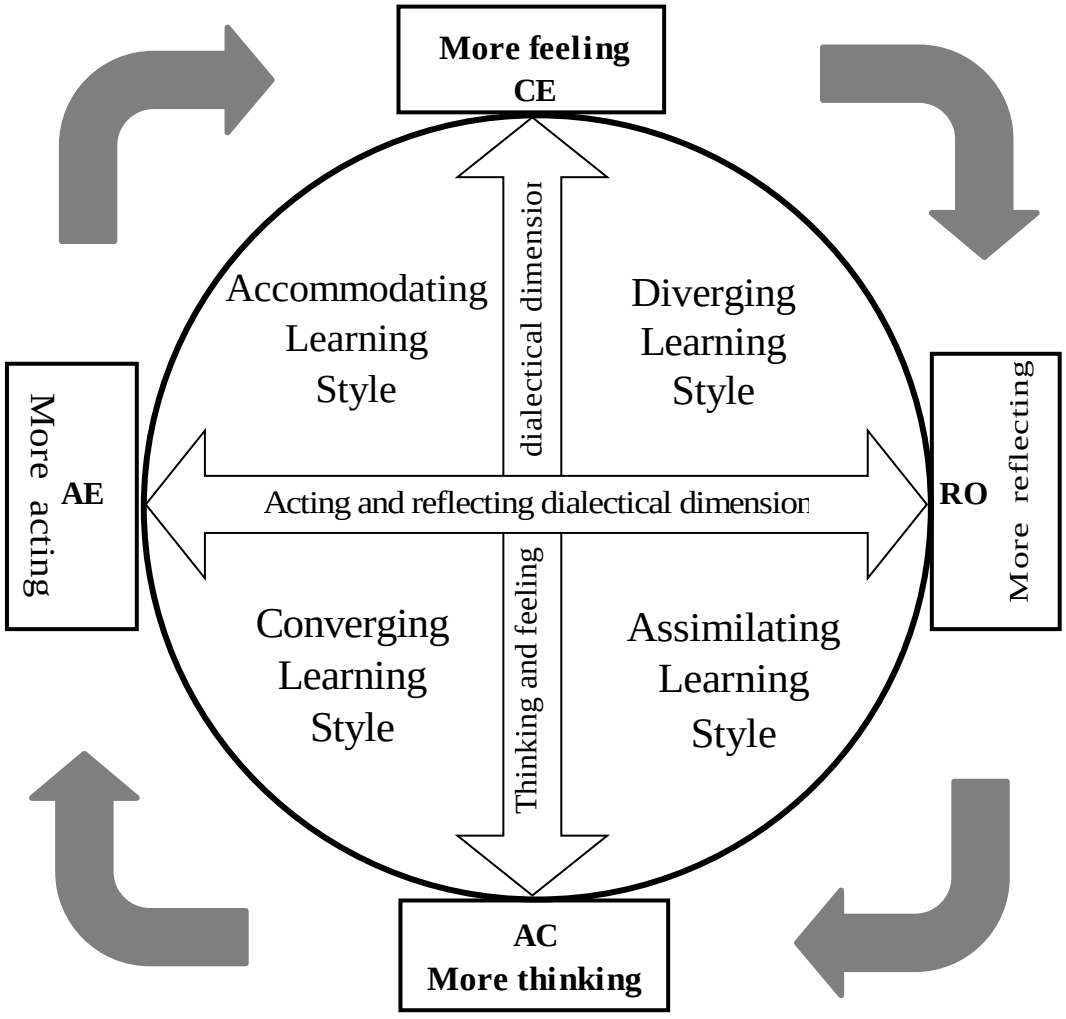

Figure 2. Processes of learning about Japanese and Thai employees.

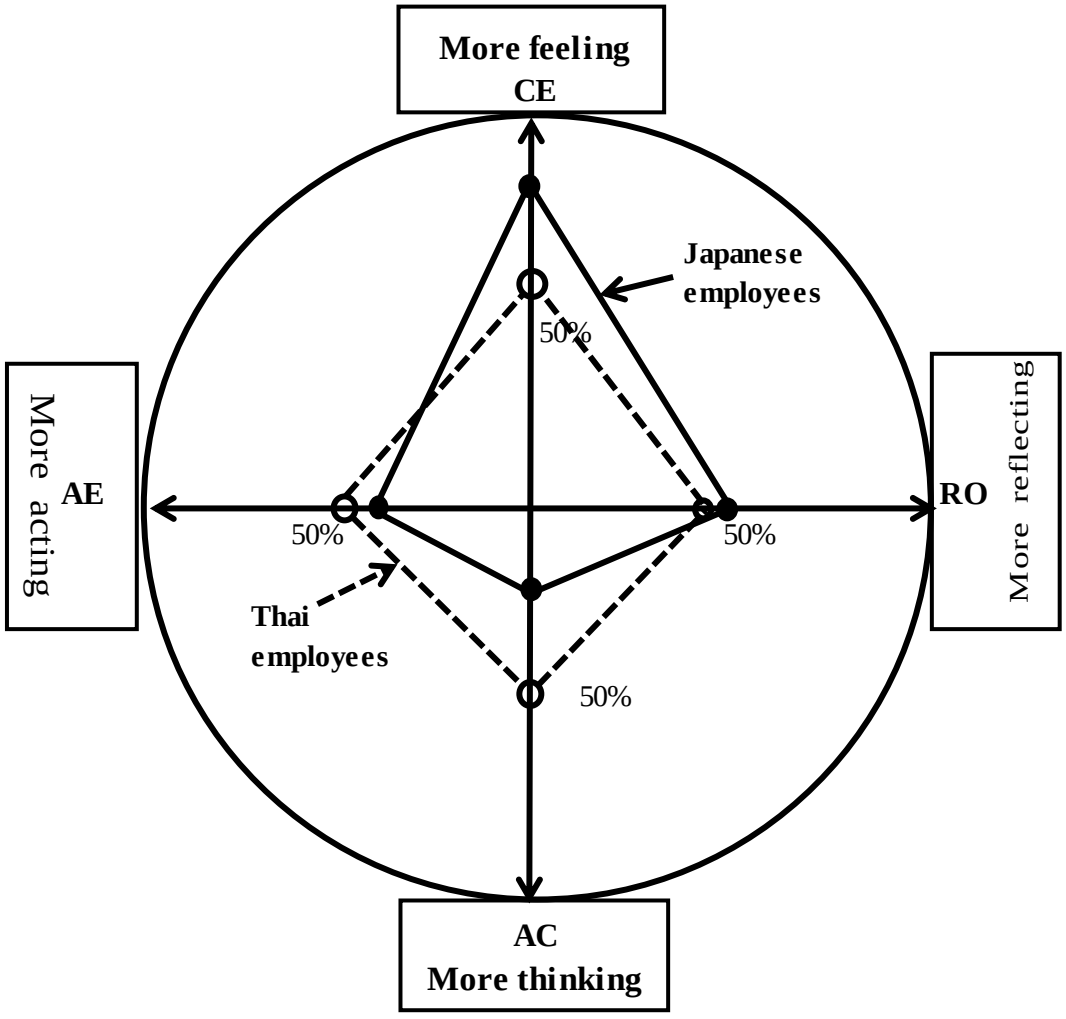

Figure 3. Learning style differences between Japanese and Thai employees.

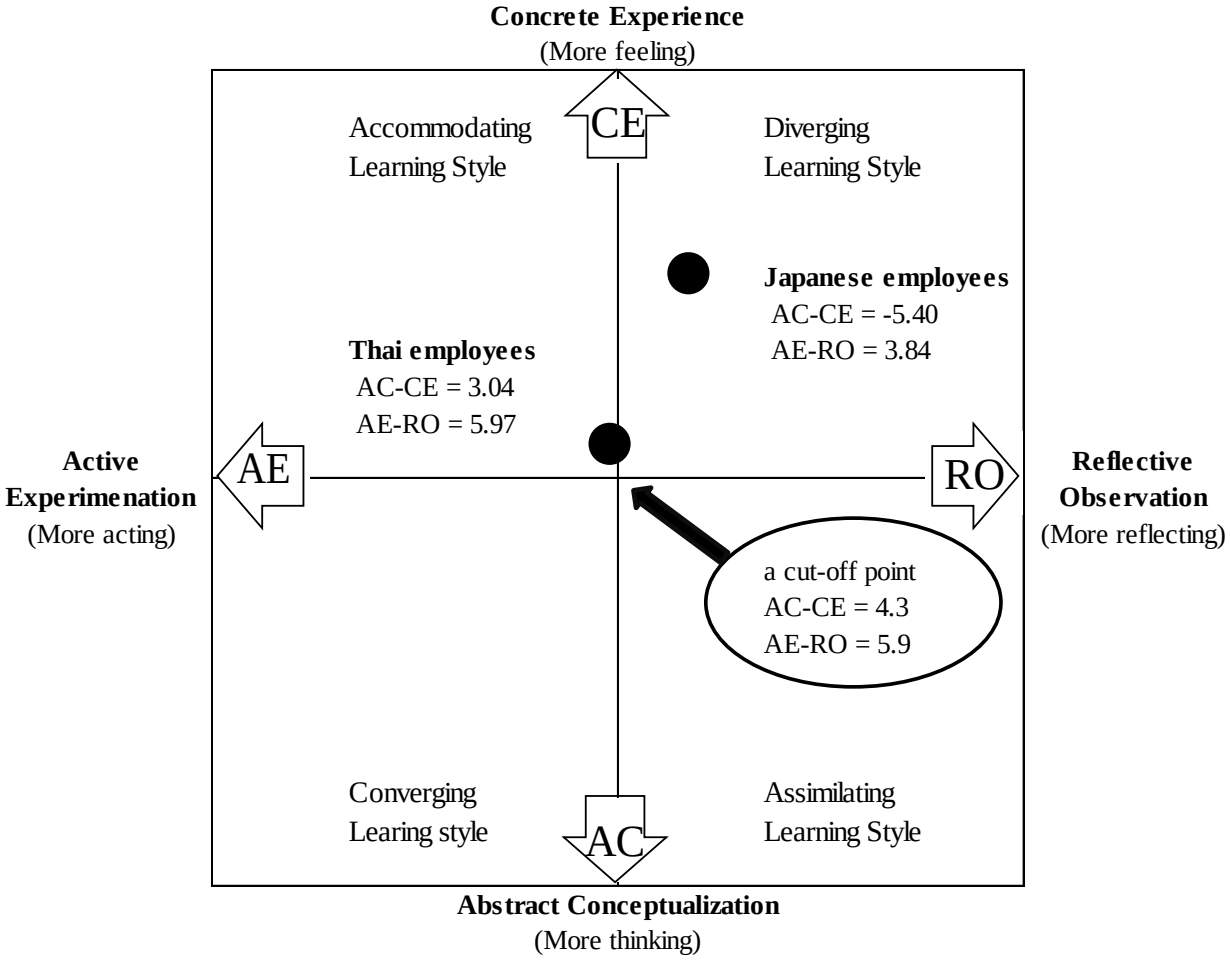

Figure 4. Learning style distribution of Japanese and Thai employees.