Exploring Current Status of the Usage of Business Simulation Games in Thai's Business School

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Introduction

Traditionally, in light of formal relationships with teachers, teaching in Thailand educational institute is mainly lecture oriented. Thailand, similar to other Asian countries, has a unique, and strong cultural traditions that demands a different pedagogy approach to teaching than western counterparts (Ainley et al. 2001)[1]. Although a new simulation organization was formed in 2008 in Thailand[2] and the ongoing trend of adopting simulation gaming in classroom teaching in other countries has been observed (Zantow et al. 2005; Tompson and Dass, 2000; Randel et al. 1992; Tan et al, 2010), applying simulation gaming (such as Second Life, or the Beer Game) in usual classroom teaching in Thailand is still not common. This may be partly because of the high cost of resources required to accommodate an IT simulation game and the lack of suitable games available.

As the business school in both North America (Faria and Wellington, 2004) and in the United Kingdom (Burgess, 1991; Tan, Muylder-

mans, and Sithole, 2007) have been fostering application of business simulation games in their curriculum, business simulation games in Thai business schools which influenced significantly from USA and Europe are also likely to play a wider and significant role in classroom teaching. Since quantitative information on the use of such games in Thai business school is still very limited, it is important for business educators to explore the current condition of business simulation games in Thai Business School and to understand key similarities and differences between Western countries and Thailand in business educational institutions. In order to enhance the body of knowledge in this area (Scott, 2002; Proserpio and Gioia, 2007; Kolb, 1984; Gosen and Washbush, 2004; Thavikulwat, 2004), it is of paramount importance that educators know what, how, and when such games can be used in the Thai classroom setting in business school. Therefore, the current study aims to explore the current situation of business simulation game in business schools in Thailand.

Research Method

The educational model and approach to instruction in Thai business schools is typically set up in accordance with the Thai Ministry of Education guidelines. These guidelines are conducted through Office for National Education Standards and Quality Assessment (ONESQA). While comparatively, North American business schools follow The Association to Advance Collegiate Schools of Business (AACSB) and UK business school follow The European Foundation for Management Development (EFMD).

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1 The unique cultural attributes (listed below) have a strong bearing on the academic culture (learning styles): English is still regards as a foreign language (rather than, as a second language, as in many South East Asian countries) (Pagram and Pagram, 2006), Personality and behavior are strongly influenced by both family and society i.e. children are taught early to show respect (i.e. formal relationship with teachers), learn in a group, and have a very close relationship with classmates (Cherry, 2000), Physical meetings and dialogue are central to support learning in communities and for individuals (Ainley et al, 2001), and Thai students tend to have similar learning styles and need a lot of guidance from teachers even in higher education (Pagram and Pagram, 2006).

2 The Thai Association for Simulation and Gaming or ThaiSim (Faria, Hutchinson, Wellington and Gold 2009)

The Thai business schools that were certified by the Ministry of Education have been listed in the "*The Best of MBA World Guide 2007*" *directory (Lertsatid 2007).* Since it includes links to the websites of member schools throughout Thailand, a list of faculty names was compiled by visiting the website of each member school. In case that the official websites for some of these business schools did not include a detailed faculty list, the administration of the business school was contacted to obtain the names of faculty members. In this study, a total of 700 questionnaire packages were mailed in small batches during April and May 2007 for the detailed survey of 35 business schools across Thailand.

Each mailing included three questionnaires with a cover letter briefly explaining the purpose of the survey and the purpose of each questionnaire. The first questionnaire was directed to educators who were currently using a business simulation game; the second was directed to educators who had previously used a business simulation game; and the third was for educators who had never used a business simulation game. These three user categories were adopted to facilitate comparison with other studies, especially the studies conducted by Faria and Wellington (2004) and Tan, Muyldermans and Sithole (2007). It should be noted, however, that some of the questions in this survey were different from those in the other two studies[3]. The questionnaires were pre-tested at the author's school with the pre-test including business simulation game users and non-users. The questionnaires were improved based on the pre-test findings. The survey data was analyzed using the SPSS statistical package (version 15.0) and Chi-square was used to test for statistical significance.

The questionnaires surveyed the respondents' awareness of: 1) business simulation games in their discipline; 2) their first exposure to business simulation games; 3) their perception of the usefulness of business simulation games in teaching; 4) whether they actively search for information about business simulation games and, if so, where they look; 5) whether they see any need to customize existing business simulation games; and 6) whether they are likely to use business simulation games in the future. Current and former users were also asked: 1) how many different business simulation games are they using or have used; 2) the percentage of course time devoted to such games; 3) the primary reason for adopting business simulation games; and 4) more detailed information on the type of business simulation games (at least 2) that they have used. In the case of former users, respondents were asked why they stopped using business simulation games and, for those who said they have never used business simulation games, the never users were further asked whether they have ever considered using business simulation games in their courses. To encourage a high response rate, general questions about the respondents' demographic profile appeared at the end of the questionnaire.

SURVEY FINDINGS

From the 700 educators on the mailing list, a total of 163 useful replies were received, providing a response rate of 23.3%. The respondents came from the following academic departments; Finance & Accounting (41%); Marketing (24%), Operations Research & Operations Management (16%); and Other (19%). The 'Other' category included Human Resources Management & Organizational Behavior, Strategy & Policy, and Statistics. Among these respondents, 100 (61%) said that they had never

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3 While the study conducted by Tan, Muyldermans and Sithole (2007) has only questions on "current users", our study and Faria and Wellington (2004) included questions for "former users" and "never users". These questions are significant for us to know the reasons why some educators decided not to use the simulation game or never use them.

Table 1: Respondent Academic Position by User Status

Respondent Type	Never Users (%)	Former Users (%)	Current Users (%)	Total (%)
Lecturer	44 (50%)	7 (50%)	10 (40%)	61 (48%)
Assistant Professor	21 (24%)	3 (21%)	5 (20%)	29 (23%)
Associate Professor	21 (24%)	3 (21%)	9 (36%)	33 (26%)
Professor	2 (2%)	1 (8%)	1 (4%)	4 (3%)
Tota (%)	88 (69%)	14 (11%)	25 (20%)	127[4] (100%)

used a business simulation game and these respondents are referred to in this study as "never users". Another 39 respondents (24%) were current users and the remaining 24 respondents (15%) were former users.

Table 1 shows the academic positions of respondents by user status. [Note: The figures in parentheses in this and the following tables are column percentages]. It is also worth noting that the greatest number of responses received was from educators holding the position of lecturer (48%), with the least number of responses received from educators holding the position of professor (3%). The smallest number

of respondents (20%) was 'former users' from all categories, whereas 'never users' comprised the largest number of respondents (69 %).

Interestingly, when examining teaching experience by user status (see Table 2), almost half of the respondents (55%) had over 10 years of teaching experience across all three user categories, indicating that the majority of the respondents to this survey were senior faculty members. In addition, there are 12% of respondents who were the former user of business simulation games, indicating they stopped using it with some reasons. This point will be discussed further in the following sections.

Table 2: Teaching Experience by User Status

Teaching experience	Never User (%)	Former User (%)	Current User (%)	Total (%)
0–5 years	19	1	5	25 (21%)
6–10 years	19	4	6	29 (24%)
11–15 years	18	1	6	25 (21%)
16–20 years	6	3	3	12 (10%)
>20 years	18	5	5	28 (24%)
Total	80 (67%)	14 (12%)	25 (21%)	119[5] (100%)

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4 Based on 78% of respondents (i.e. those provided their title)
5 Based on 73% of respondents.

Table 3: Awareness of other business simulation games

	Never User (%)	Former User (%)	Current User (%)	Total (%)
Aware	63 (73%)	12 (80%)	19 (76%)	94 (74.6%)
Not Aware	23 (27%)	3 (20%)	6 (24%)	32 (25.4%)
Total	86	15	25	126 (100%)

Based on 77% of respondents

Attitudes toward Business Simulation Games

In response to the question asking respondents to rank their awareness (see Table 3) of business simulation games related to their discipline, 76% of current users said that they were 'somewhat' to 'very aware' of such games. Clearly, not all the current users is monitoring the current development in business simulation games or there is little promotion of education gaming in Thailand. Overall, 74.6% of respondents across all three user categories indicated awareness of business simulation games, whereas 27% of 'never users' and 20% of 'former users' said they were 'not very aware' or 'not familiar' with such games.

As shown in Fig. 1, the three ways most often cited by which respondents first became exposed to business simulation games were: 1) playing such games when they were students; 2) becoming interested in such games on their own; and 3) learning about such games through a professional association. There was a significant difference between the user groups ($\chi 2=16.323$, p=0.015) indicating that initial exposure to business simulation games may influence use. If users became exposed to business simulation games as students, then they were more likely to use such games as part of their teaching.

An impressive 93% of current users expressed a positive view of the usefulness of business simulation games in their teaching. More than 60% of respondents across all three user categories said that they found such games moderately to extremely useful (Fig. 2). When asked if they are actively searching for business simulation games, 64% of the current users said they were. Moreover and more interestingly, 60% of former users who had stopped using business simulation games said they were also still actively searching for such games. This

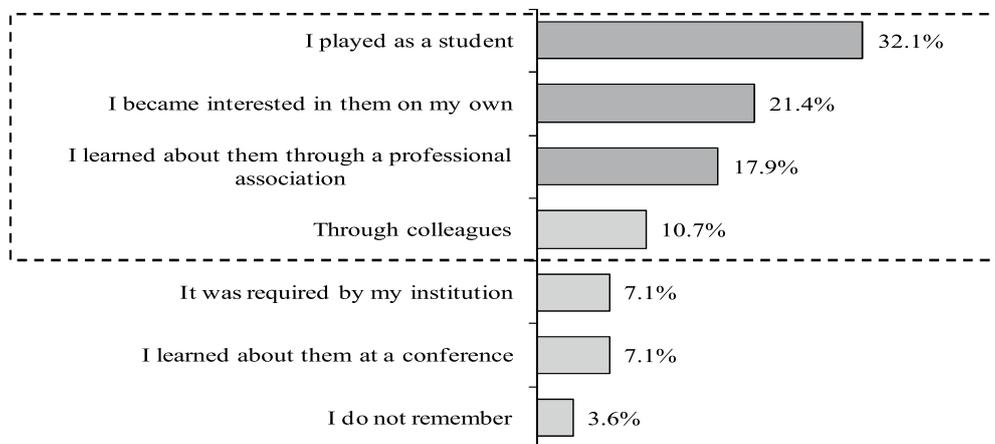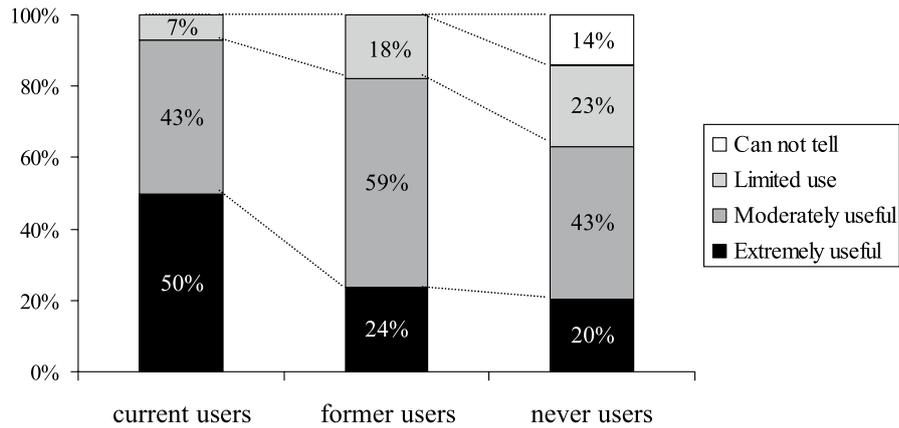|	
I played as a student	32.1%
I became interested in them on my own	21.4%
I learned about them through a professional association	17.9%
Through colleagues	10.7%
It was required by my institution	7.1%
I learned about them at a conference	7.1%
I do not remember	3.6%

Figure 1: First Exposure to Games

Figure 2: Perception of the Usefulness of Business Simulation Games in Teaching

finding implies that former users still believe that games are useful for classroom teaching. As shown in Figure 3, the three most commonly mentioned reasons of given up the use of business simulation game were: 1) "changes in teaching assignment"; 2) "preparation time was too long"; and 3) "resources required were high". It indicates former users may resort to using games in their teaching, if they could 1) identify suitable games for their new teaching assignment, 2) have enough resource to implement games, or 3) save their preparation time by using assistants or by introducing less time consuming software or program.

Survey respondents cited the Internet,

talking to colleagues, and books as the most frequent sources used to access business simulation games. The most likely future trend predicted in business simulation game use by user groups resulted in a significant difference ($\chi 2$=10.284, p=0.010) when 'Increased Use' was compared to other possible responses (see Figure 3). It was found that 56% of current users are in favor of increased use of business simulation games, even as over 54% of respondents across all three user categories agreed with this view (see Figure 4). Only a few current users indicated that they would cease using business simulation games in the future.
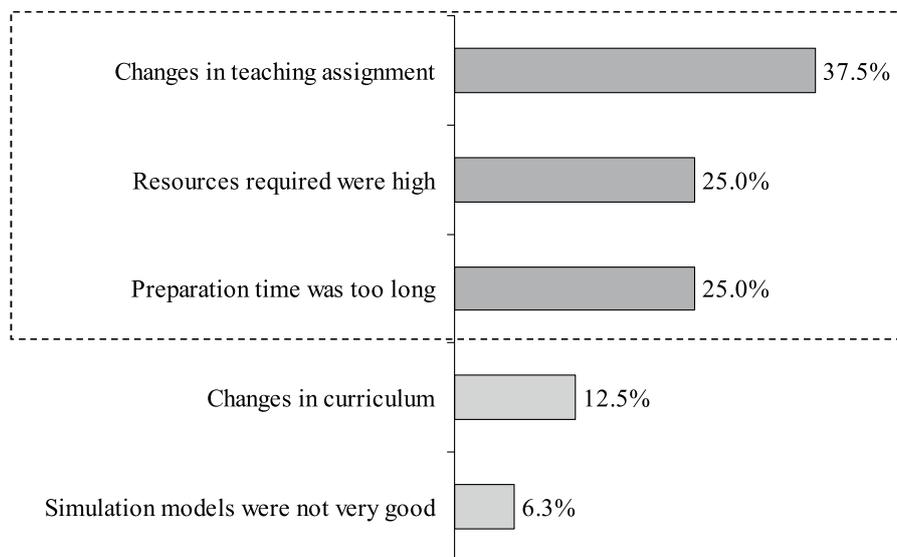

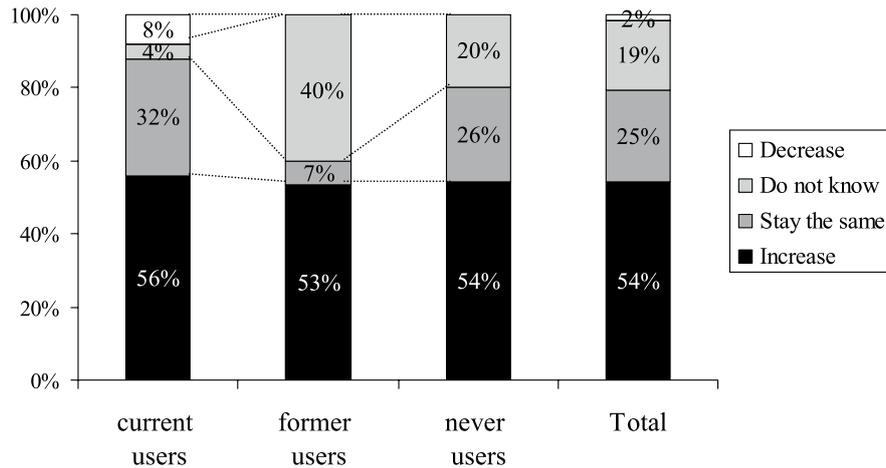Figure 3: Reasons for Having Stopped Using Business Simulation Games

Figure 4: Likely Trends in the Usage of Business Simulation Game by User Status

Current and Former Users' Experience with Business Simulation Games and the Reasons for their Adoption

The majority of the current and former users (58% and 71%, respectively) who responded to this survey have been using business simulation games for less than 5 years. It was also found that 43% of all current user respondents have adopted only one business simulation game. In terms of the target student groups for the application of business simulation game, current and former users said they use such games primarily in MBA courses but far less frequently in other courses (including Executive MBA/MSc. Courses). Nevertheless, in general, business simulation games seem to constitute only a small amount of the total course time; about 69% of current and former users reported that such games accounted for only 20% or less of total course time (see Table 4).

This indicates that although business simulation games have a potential role in education, such games are rarely a dominant mode of instruction. As described in Figure 5, the three primary reasons most frequently mentioned as a purpose of the use of business simulation games in classroom teaching were; 1) "to increase stu-

Table 4: Proportion of simulation and games usage in classroom

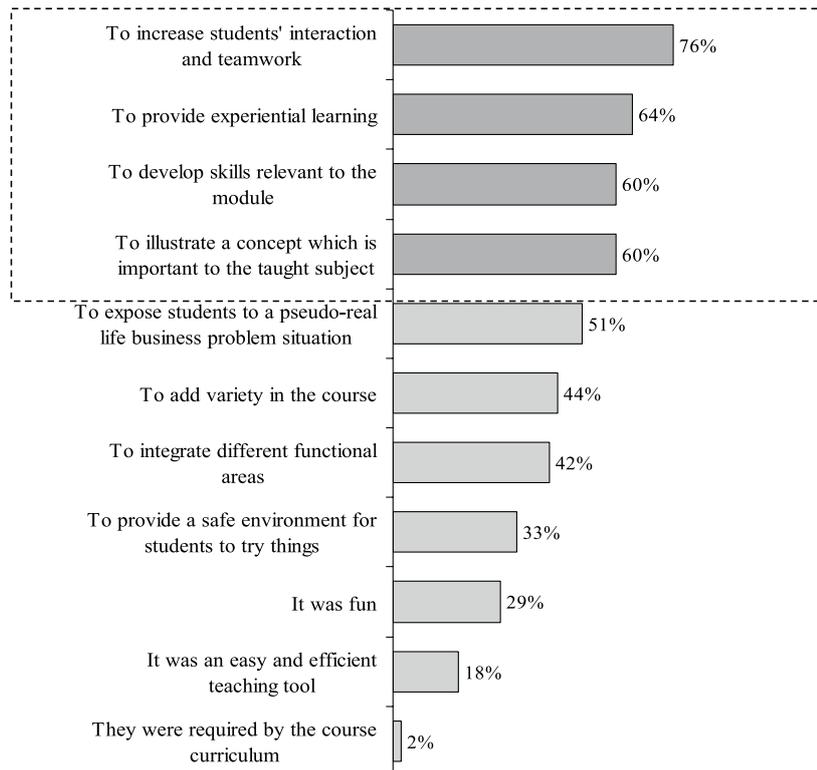| % of usage of total course time	Former User (%)	Current User (%)	Total (%)
Less than 20%	11 (65%)	20 (71%)	31 (69%)
20–29%	3 (18%)	3 (11%)	6 (14%)
30–39%	1 (6%)	1 (4%)	2 (4%)
40–49%	0 (0%)	2 (7%)	2 (4%)
More than 50%	2 (11%)	2 (7%)	4 (9%)
Total	17 (100%)	28 (100%)	45 (100%)

Figure 5: Primary Reasons for Using Business Simulation Games

dent interaction and teamwork"; 2) "to provide experiential learning"; and 3) "to illustrate a concept which is important to the taught subject" and "to develop skills relevant to the module" (equal score). It indicates that the business simulation game at this point in time plays more complementary roles in stimulating class interactions and fostering experiential learning in class room teaching. We also found that the educators who adopt business simulation games use a wide variety of simulations suited to the specific course being taught. Respondents in the survey mentioned forty-one different business simulation games; some of these games are commercially available on the market, but many others were so-called "privately developed" business simulation games for personal usage.

Reasons Given by "Never Users" for Not Using Business Simulation Games

This survey explored why the "never user" group of respondents had decided not to use

business simulation games in the classroom. The reasons given are summarized in Fig. 6 and included: 1) "lack of information on simulations"; 2) "poor fit with the course I teach"; and 3) "lack of preparation time" and "funding and technical issues" (equal score). As mentioned in the introduction section, English is still considered as foreign language in Thailand. Given that most simulation and gaming information is in English, the result indicates the need to have more gaming information in Thai language as well as more activities to promote games information to educators.

Comparisons with Existing Literature

The results obtained from this survey on the use of business simulation games in Thai business schools were comparable to the conclusions reached by a survey of North American business schools conducted by Faria and Wellington (2004) and a survey of United Kingdom business schools carried out by Tan, Muyldermans, and Sithole (2007). The profile of
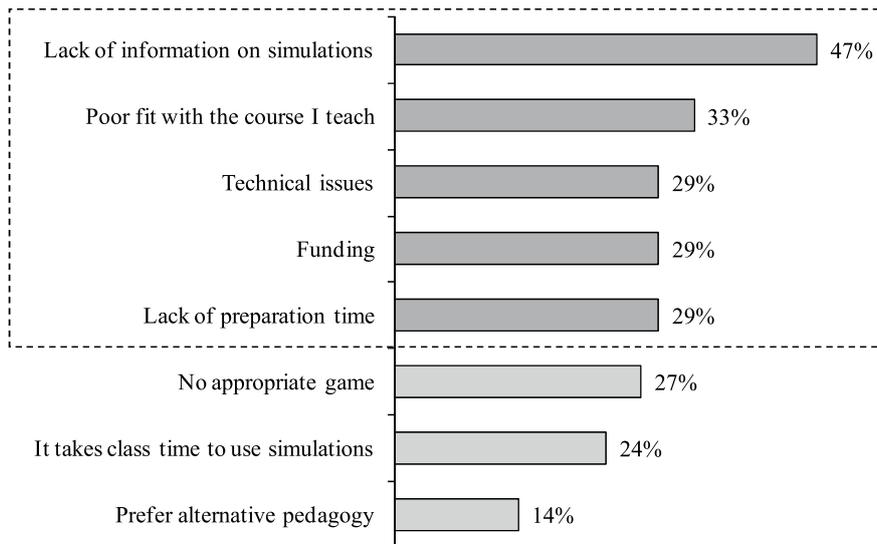
Figure 6: Reasons for Not Using Business Simulation Games

the response rates and teaching experiences are similar in terms of the user groups. The surveys of business schools in North America, United Kingdom, and Thailand also found that the first exposure of users to business simulation games were during their student days or from colleagues. Users get their information either from colleagues or the Internet. Discontinued use of the business simulation games were attributed to several reasons such as 1) "changes in teaching assignment"; 2) "preparation time was too long"; and 3) "resources required were high", which were not related to technical issues nor the usefulness of business game itself. In fact of our survey, 60% of former users who had stopped using business simulation games said they were also still actively searching for such games.

The survey results show that in general, educators in Thailand and the United Kingdom spend less time using business simulation games in the classroom than do their North American counterparts. The main reason given for not using business simulation games in the classroom in North America was the amount of preparation time required, whereas in Thailand and the United Kingdom, it was the lack of information about such games that deterred

non-users from adopting it. In terms of the usefulness of business simulation games in classroom teaching, current users in the United Kingdom survey conducted by Tan, Muyldermans and Sithole (2007) were more positive (77%) compared with current users in this survey in Thailand (2008) (50%). In comparison with the survey in North American business schools (Faria and Wellington,2004), the major difference is that Thai educators, similar to their counterparts in the United Kingdom, devote less time to the use of such games in their teaching. Table 3 highlights the differences in the game applications used in business schools in Thailand and the United Kingdom as compared to their North American counterparts.

CONCLUSION

The research results indicate that business simulation games are presently being used in many business schools in Thailand and the majority of current users expressed a positive view of the usefulness of business simulation games in their teaching. However, the survey results indicated that the percentage of course time devoted to such games is limited and information available for educators in Thailand

Table 3: Key Differences in the Surveys of Business Schools in North America, the United Kingdom, and Thailand

	North America	United Kingdom	Thailand
Authors	Faria and Wellington	Tan, Muyldermans, and Sithole	Pongpanich, Krabuanrat, and Tan
Year of survey	2004	2007	2008
Respondents' profile	30% Professors	10% Professors	3.1% Professors
Proportion of "current users"	31%	34%	24%
Proportion of "former users"	17%	N/A	15%
Proportion of "never users"	52%	N/A	61%
Time devoted to game teaching (current users)	30% of teaching time	< 10% of teaching time	< 10% of teaching time
Reasons for adopting games	* To provide decision-making experience * To allow for theory application * To integrate different functional areas	* To increase students' interaction * To expose students to a "real life" business problem situation * To provide experiential learning	* To increase students' interaction * To provide experiential learning for students * To illustrate a point that is important to the subject

is less in comparison to North America, which implies that even as simulation games do have a role in teaching and educators believe in the potential of business simulation games, the infrastructure of application of such games are still under developed. When it came to the reasons for deciding to discontinue using business simulation games, all educators in Thailand and the United Kingdom viewed lack of information as the main reason, whereas educators in North America believed that it was the amount of preparation time required[6]. Interestingly, the second most cited reason by educators in Thailand for discontinuing the use of business simulation games was the poor match of these games to the subjects being taught. Although educators in Thailand found business simulation games useful, Western business simulation games do not reflect the curriculum taught in Thai business schools. One solution for the "mismatch" between Western and Thai curriculum is to customize the busi-

ness game in order to fit them to own local contexts. Although it might be very time and resource consuming and the local Thai software industry is still in its infancy, this study found that many users of business simulation games in Thailand privately developed.

Since the action learning course including business game simulations in business education has been increasing globally, it is important for us to explore and understand the potential and difficulty of applying business simulation games. As the diversities of business environment increased significantly, the business students should learn more about application skills arises from the dynamic business process rather than the selection of pre-selected solutions to the static problems, in which we can see a great potential of business simulation game to play a significant role.

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6 It should be noted that the existing literature also pointed out that a large proportion of business school educators know still very little about business simulation games and appear to be 'uninterested' in learning about such games (Faria and Wellington 2004, Burgess 1991).

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