EXHIBITORS' PERSPECTIVES ON COMPETITIVENESS OF EXHIBITION INDUSTRY IN THAILAND

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Abstract

Among the growth of global exhibition industry, Asia is strongly positioned to remain one of the most attractive trade fair markets worldwide. Despite the positive direction of the country's large market size and revenue in its sub-region, Thailand is facing intensive competition both in existing, and high potential new entrants from emerging ASEAN countries. Therefore, the country needs to review its position in regard to competitiveness.

The purpose of this study was to explore competitiveness attributes of exhibition industry in Thailand from exhibitors' perspectives. This study employed quantitative method to explore competitiveness attributes of exhibition industry in Thailand from exhibitors' perspectives. The questionnaire survey was conducted at 14 international exhibitions in Thailand during 2015 and 2016. The result of EFA determined three competitiveness factors which were**: -** 1) exhibition attributes, 2) destination attributes, and 3) enabling environment.

The result showed that Thailand's exhibition industry has weaknesses in destination and enabling environment factors. These factors are concerning about the facilitation of the country towards the exhibition industry. Therefore, it is recommended to focus more on improving enabling environment to facilitate the ease of doing business in Thailand. Although, the roles of government must be highly involved to support those factors; the collaboration among stakeholders is also vital to drive its competitiveness.

Keywords: Exhibition industry / Competitiveness / Exhibitors' perspectives

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Introduction

Thailand is one of the large markets in the region recorded on modest growth by 3.8%. Recently, the country has been ranked the 8th largest exhibition market in Asia, and the first in Southeast Asia in term of exhibit space (World Tourism Organization, 2014). According to the Global Association of the Global Association of the Exhibition Industry (2017a), Thailand's indoor exhibition space amounted to 236,943 square meters in 2017 accounting for 0.7% of the World's and 2.9% of Asia's total exhibit space. According to Thailand Convention and Exhibition Bureau (2013), Thailand's exhibition industry has been ranked the first in Southeast Asia region from 2011 to 2015 in term of exhibit space. In 2017, more than 104 exhibitions of a diversified nature and scale are held in Thailand, delivering revenue of 37,321,819,737 Thai baht or approximately US$1,082,668,886 and contributing 0.18% to Thailand's overall GDP (Thailand Convention and Exhibition Bureau, 2017).

Nevertheless, the competition within the region is extremely high. the Global Association of the Exhibition Industry (2017a) released the 13th edition of its annual report, Trade Fair Industry in Asia 2017. The report shows that 20.8 million square meters of space was sold in Asia in 2016, where 58% of this total was sold in China. It also shows that the Philippines, Vietnam, and Indonesia outperformed the regional average increased by 9.6%, 7.3%, and 5.8% orderly, where Thailand expanded only 3.8%. In addition, the existing competitors – Singapore and Malaysia have been ranked the second and third largest size in Southeast Asia with exhibition space of 219,970 and 119,842 square meters respectively (the Global Association of the Exhibition Industry, 2013). Even though, they are smaller in term of size, the estimated revenues are somewhat higher. Moreover, these two countries have all developed high potential exhibition venues, transportation networks and supporting hospitality facilities. Meanwhile, Thailand convention and exhibition bureau (2015) indicates that Thailand has faced several internal challenges including complexity of government system, lack of integrated synchronization, and self-contraction. As regional competition heats up, the country needs to review its competitiveness and better develop its exhibition industry.

According to Nontharak (2014), the key factors affecting the competitiveness of MICE industry in South Korea, lesson learned for Thailand's MICE industry, include improvements for a safe and convenient environment (stability and security, public transportation); developing the essence of knowledge-based economy (information and communication technologies (ICTs), Human resource development (HRD), research and development (R&D); and promoting MICE tourism (collaboration between central and local sectors). She suggested that the key development of Thailand's MICE industry is to move forward a knowledge-based economy – intellectual capabilities of workers, rather than on natural resources or physical production factors. In addition, Wata (2010) studied focusing on the destination competitiveness of exhibition industry. The study pointed out that marketing and business opportunity are the most important factors for successful destination. Least important factor in entertainment. Thailand had significantly less competitiveness in 18 factors such as marketing, fame of the exhibition, and business opportunity, while cost of travelling, service quality, cost of lodging and entertainment were no significant differences between Thailand and other successful countries in Asia. Moreover, Limpanawetsakul and Chuntuk (2016) also stated that the human resource was the key factor for Thailand's professional exhibition organizers to gain more competitive advantage.

Objective

The purpose of this study was to explore competitiveness attributes of exhibition industry in Thailand from exhibitors' perspectives.

Methodology

This study employed quantitative method to explore competitiveness attributes of exhibition industry in Thailand from exhibitors' perspectives. The questionnaire survey was conducted at 14 international exhibitions in Thailand during 2015 and 2016. Due to restricted access, the online survey was initially conducted by sending electronic form to email address personally. The study hosted the survey at Survey Monkey as online surveys which is fast and cost effective to help mail-out survey. Personal survey was also employed to ensure completed data and obtain more respondents since electronic survey performed low rate of respondent. This approach enabled us to secure 235 responses, which was a response rate of 16.6 percent, a "fair" rate for internet-based surveys since different survey approaches involve different variables and response rates (Tabachnick and Fidell, 2001).

There were 20 competitiveness of exhibition industry variables – including accessibility of the destination, suitable exhibition venue, reputation and flexibility of staff, reasonable cost, telecommunication and infrastructure, safety and security, natural and health risk, negotiation policy, attractiveness of the destination, availability of multilingual staff, ground transportation, foreign exchange rates, political and economic stability of the destination, foreign governments reputation, customs regulations, environmentally friendly destination, visa requirement, attitude of local residents toward foreign visitors, commercial hub of regions, and ability to access markets – derived from various literature reviews in MICE and tourism studies. Descriptive and exploratory factor analysis were utilized to identify the components of exhibition industry competitiveness.

Results

The data were collected in 2015 – 2016. After cleaning data, it is found that a sample size of 235 respondents, which is considered "fair" for exploratory factor analyzes (Tabachnick and Fidell, 2001). The 235 study participants represented the exhibitors who have experienced in Thailand's exhibition industry. Table 1 presents a summary of the main characteristics of the participants. A majority of the participants were from food and beverage industry (21.7 percent), agriculture and farming (12.8 percent), and plastic industry (12.3 percent). The other industries comprised 17.9 percent of total respondents including educational institute, chemical, steel scaffold, and general industrial goods. About four-fifths of participants were from Thailand and China. Most of the participants were middle manager (39.60 percent), staff (20.90 percent), and senior manager (17.40 percent).

Table 1 Characteristics of the sample (n = 235)

Characteristics		Percent
Industry sector	Automobile	1.70%
	Agriculture & Farming	12.80%
	Construction	6.80%
	Cosmetic and beauty	3.40%
	Communication Technology	1.70%
	Decorative and furniture	6.00%
	Energy	4.30%
	Electricity	2.10%
	Food and Beverage	21.70%
	Medical & Health	7.20%
	Plastic	12.30%
	Tourism and Hospitality	2.10%
	Others	17.90%
Job position	Owner	15.70%
	Managing director	6.40%
	Senior manager	17.40%
	Middle manager	39.60%
	Others	20.90%
Country of residency	Burkina Faso	0.90%
	China	28.50%
	France	2.00%
	Germany	0.40%
	Japan	3.40%
	Malaysia	1.70%
	Republic of Korea	3.00%
	Taiwan	2.10%
	Thailand	56.20%
	United Kingdom (UK)	0.90%
	United States of America (USA)	0.90%

Source: survey

The study utilized exploratory factor analysis (EFA) to reduce the number of factors measuring competitiveness of exhibition industry in order to identify which factors have the most impact and remain in the model, and which factors have little or no impact so can be eliminated from the model, and accordingly obtain a model of the most effective factors (Henson and Roberts, 2006). Principal components extraction method and varimax rotation were utilized to determine underlying dimensions of exhibition industry's competitiveness. This extraction method is widely used and understood which common variance is analyzed with the unique error variances removed (Tabachnick and Fidell, 2001). The items were derived from review of literatures and measured its efficiency by five-point Likert scale ranging from strongly agree (5) to strongly disagree (1). The data validity and sampling consistency were tested by using the Kaiser-Meyer-Olkin (KMO) and Bartlett's test. Afterwards, z-normalization data (z-score) was employed to indicate weighting score of each factor. Prior to completing data reduction and assessing for potential factor solutions.

Cronbach's α measures how well a set of items measures a single unidimensional latent construct. A reliability coefficient of 0.70 or higher is acceptable in the social sciences (Nunnally, 1978). The overall construct had Cronbach's α of 0.919 as shown is table 2. The study also used this test to assess the internal consistency of the items within each construct and all extracted factors had Cronbach's α greater than 0.70. In addition, the study used 0.40 as a cut-off the identify items with the highest loading for the inclusion with a factor (Conway and Huffcutt, 2003). Table 3 shows communalities value where every item load greater than 0.40 in the analysis; therefore, none of the items were cut-off. Eigen values over one was also used to extract reliable factors. As shown in table 4 eigen values are over one, and total variance explained is 60.87 percent. Afterwards, the study dropped items loadings were lower than 0.5 in the first factor analysis run; therefore, the two of 20 items were dropped from each of the independent variables. The remaining items had loading of 0.5 and greater. The result of the factor analysis is discussed in the section that follows.

The communality is the variance in the observed variables which are accounted for by a common factor or common variance (Child, 2006). The communality is denoted by h2 and is the summation of the squared correlations of the variable with the factors (Cattell, 1996). Often times variables with low communalities (less than .20 so that 80% is unique variance) are eliminated from the analysis since the aim of factor analysis is to try and explain the variance through the common factors (Child, 2006). In addition, the study used 0.40 as a cut-off the identify items with the highest loading for the inclusion with a factor (Conway and Huffcutt, 2003). Every item load greater than 0.40 in the analysis; therefore, none of the items were cut-off.

Principal components analysis is a data reduction technique and the issues of whether it is truly a factor analysis technique has been raised (Costello & Osborne, 2005). One criterion that can be used to determine the number of factors to retain is Kaiser's criterion which is a rule of thumb. This criterion suggests retaining all factors that are above the eigenvalue of 1 (Kaiser, 1960). There were three factors extracted, eigen values were over one, and total variance explained was 60.87 percent. When interpreting the factors, the factor loadings was observed to determine the strength of the relationships. Factors can be identified by the largest loadings, but it is also important to examine the zero and low loadings in order to confirm the identification of the factors (Gorsuch, 1983). Therefore, the study dropped items loadings were lower than 0.5 in the first factor analysis run; therefore, the two of 20 items were dropped: CEI15 Customs regulations and CEI19 Commercial hub of regions.

Factors are rotated for better interpretation since unrotated factors are ambiguous. The goal of rotation is to attain an optimal simple structure which attempts to have each variable load on as few factors as possible, but maximizes the number of high loadings on each variable

(Rummel, 2010). Varimax rotation method minimizes the number of variables that have high loadings on each factor and works to make small loadings even smaller.

The rotated component matrix of competitiveness divided components into three factors. Factor one includes, CEI02 Suitable exhibition venue, CEI03 Reputation, flexibility & professionalism of the staff, CEI04 Reasonable costs, CEI10 Availability of multilingual staff, and CEI08 Negotiation and flexibility policies. Factor two includes CEI01Accessibility of the destination CEI11 Availability, comfort and cost of ground transportation, CEI05 Telecommunication & infrastructure, CEI06 Safety & security, CEI17 Visa requirement, CEI14 Foreign government reputation, and CEI20 Ability to access markets. Factor three includes CEI07 Natural & health risks, CEI09 Appeal and Attractiveness of the destination, CEI12 Foreign exchange rates & seasonal aspects, CEI13 Political & economic stability of the destination, CEI18 Attitude of local residents toward foreign visitors, and CEI16 Environmentally friendly destination.

Table 2 presents summary of Exploratory Factor Analysis of Exhibition Industry Competitiveness. Factor one is labeled as *Exhibition Attributes* which includes suitable exhibition venue (0.73), reputation, flexibility & professionalism of the staff (0.73), reasonable costs (0.70), availability of multilingual staff (0.69), negotiation and flexibility policies (0.60). It is basic attributes of exhibition industry where every industry must provide suitable venue for specific type of product display, professionalism and flexibility of staff, and also flexibility of negotiation. Factor two is labeled as *Destination Attributes* which includes accessibility of the destination (0.78), availability, comfort and cost of ground transportation (0.69), telecommunication & infrastructure (0.67), safety & security (0.62), visa requirement (0.62), foreign governments reputation (0.59), ability to access markets (0.51). This factor refers to what destination to offer as basic requirement to international exhibitors a visitor. The Factor three is labeled as **Enabling Environment** which includes natural & health risks (0.72), appeal and attractiveness of the destination (0.68), foreign exchange rates & seasonal aspects (0.63), political & economic stability of the destination (0.59), attitude of local residents toward foreign visitors (0.57), environmentally friendly destination (0.56). The last factor is considered as ease of doing exhibition business in the destination. It allows exhibition organizers to host an exhibition and facilitate the exhibition market.

Table 2 Summary of Exploratory Factor Analysis of Exhibition Industry Competitiveness

Factor and Item	Factor loading	Eigen value	% of variance explained	Reliability alpha (α)	Mean score x̄	Z score (100%)
Exhibition Attributes						
CEI02 Suitable exhibition venue	0.73					
CEI03 Reputation, flexibility & professionalism of the staff	0.73					
CEI04 Reasonable costs	0.70	8.71	43.56	0.89	4.15	54.68
CEI10 Availability of multilingual staff	0.69					
CEI08 Negotiation and flexibility policies	0.60					

Table 2 (continued)

Destination attributes						
CEI01 Accessibility of the destination	0.78	1.79	8.96	0.79	4.10	51.41
Factor and Item	**Factor loading**	**Eigen value**	**% of variance explained**	**Reliability alpha (α)**	**Mean score x̄**	**Z score (100%)**
CEI11 Availability, comfort and cost of ground transportation	0.69					
CEI05 Telecommunication & infrastructure	0.67					
CEI06 Safety & security	0.62					
CEI17 Visa requirement	0.62					
CEI14 Foreign governments reputation	0.59					
CEI20 Ability to access markets	0.51					
Enabling environment						
CEI07 Natural & health risks	0.72					
CEI09 Appeal and Attractiveness of the destination	0.68					
CEI14 Foreign exchange rates & seasonal aspects	0.63					
CEI13 Political & economic stability of the destination	0.59	1.07	5.36	0.75	3.82	51.90
CEI18 Attitude of local residents toward foreign visitors	0.57					
CEI16 Environmentally friendly destination	0.56					

Source: survey

Additionally, Z-score normalization was also adopted to normalize data which helps to avoid the outlier issues. The Z -scores are also known as standardized scores; they are scores (or data values) that have been given a common standard. The goal of normalization is to make every data point have the same scale, thus each feature is equally important. The results of Z score indicating weighting score ranging from 0 - 100 for each competitiveness index, as show in figure 1 below. Each index also indicates efficiency of Thailand's exhibition industry: the exhibition attributes (54.68), destination attributes (51.41), and enabling environment (51.90). It shows that Thailand's exhibition industry is on above average in every competiveness factors, indicating rooms for improvement.

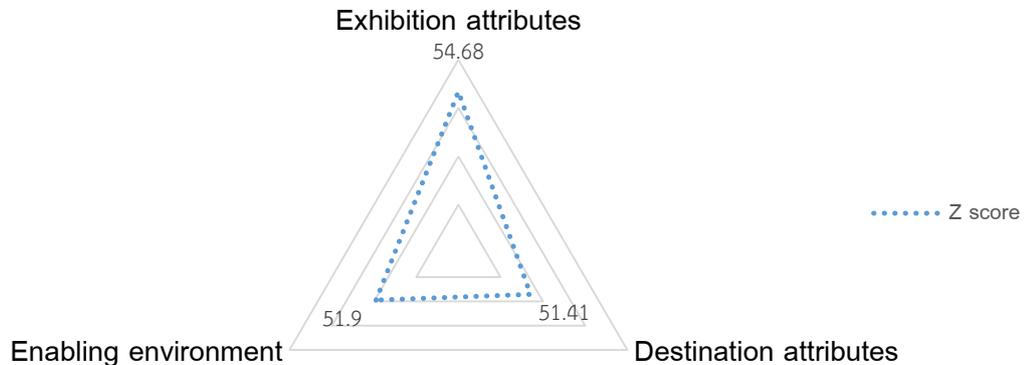## Competitiveness index of exhibition industry in Thailand

Figure 1 Competitiveness Index of Exhibition Industry in Thailand

Conclusion

The exhibition industry is facing highly competition. Even though, Thailand is leading the industry in South East Asia region, the existing competitors like Singapore and Malaysia are not far behind. Moreover, the new comers such as Vietnam, Cambodia, and Philippines are growing very fast. This is highly concerning that Thailand should keep an eye on. The study explored the exhibitors' perspectives on the competitiveness of exhibition industry in Thailand.

The study employed the exploratory factor analysis (EFA) using the Principal components analysis and Varimax with Kaiser Normalization to explore the competitiveness attributes of exhibition industry. The EFA determined three competitiveness factors labeled: - 1) exhibition attributes, 2) destination attributes, and 3) enabling environment. The three factors explained 60.87 % of the total variance of the variables and were then tested by the Cronbach's Alpha for reliability test. All of five factors identified had a reliability value above .70. Eigen values of each component are greater than one: exhibition attributes (8.71), destination attributes (1.79), and enabling environment (1.07). Moreover, Z-score normalization or standardized scores was also adopted to normalize data ranging from 0 - 100. It shows the efficiency of Thailand's exhibition industry are scored of 54.68 for the exhibition attributes, 51.41 the destination attributes, and 51.90 for the enabling environment. The result of z-score of each factor is just above average.

The result shows the agreement with Nontharak (2014) that the safety, security, and stability should be improved along with the destination promotion, as well as human resource development must be more concerned in order to gain more competitive advantage (Limpanawetsakul and Chuntuk, 2016). Significantly, the result also found out that the tourism or entertainment factor is less concerned in exhibitors' perspectives since they focus more on business activity (Wata, 2010).

The competitiveness index indicated that Thailand's exhibition industry has weaknesses in destination and enabling environment factors. These factors are concerning about the facilitation of the country towards the exhibition industry. Therefore, it is recommended to focus more on improving enabling environment to facilitate the ease of doing business in Thailand. Although, the roles of government must be highly involved to support those factors; the collaboration

among stakeholders is also vital to drive its competitiveness (Nontharak, 2014). Furthermore, Thailand could adopt the environmentally friendly strategy to enhance their competitiveness.

Finally, the study was limited to only exhibitor's points of view and trade exhibition. To obtain a more holistic views of the exhibition industry in Thailand, the further research on visitor's perspectives and consumer exhibition are recommended.

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