

THE JAPAN FOUNDATION GRANT FOR TOURISM RESEARCH AND PROMOTION

## HERITAGE TOURISM RESEARCH PROJECT



# Vietnam Country Report

**VOLUME 1 - INVESTIGATING THE DEGREE OF CUSTOMER SATISFACTION AT MUSEUMS  
IN CHIANG MAI**

**VOLUME 2 - PENANG'S TRADITIONAL ARTS PERFORMANCE IN ATTRACTING  
INDEPENDENT FOREIGN TOURISTS**

**VOLUME 3 - MARKETING STRATEGIES FOR ATTRACTING VIETNAMESE TOURISTS TO  
KYOTO, JAPAN**

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**VOLUME 1 - INVESTIGATING THE DEGREE OF CUSTOMER  
SATISFACTION AT MUSEUMS IN CHIANG MAI**

Hanoi, 3 March 2017

## **Abstract**

*In the service sector, it is effortless to find a number of researches, even in the museum experience as well. However, such researches are normally conduct on a specific site or specific city/ country. In this study, the Principle Component Analysis and Logistic Regression Model were used to determine factors affecting “the visitor’s quality of experience” during their visiting at museum. Data were collected from 153 visitors in many museums from Thailand to Japan (Thailand, Vietnam, Malaysia and Japan specifically). The results pointed out that in order to improve visitors’ quality of experiences in museums, the uniqueness of collections in each site, human resources or the helpfulness of employees in such sites, and facilities of those museums were among the major factors. Therefore, museums should pay attention to such factors so that they can attract more visitors coming to their sites with better quality of experience.*

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## **Executive Summary**

The aim of this research is to improve the “visitors’ quality of experience” during their visitation in the museums, for use by museums managers to assist in further developing and improving their sites. Museums manager will gain a greater knowledge of their customers, allowing themselves to adapt to changes in the pattern of interest from visitors. This is also helpful for hospitality policy makers and professors as they can have greater insight into the interests of tourists, serving for the purposes of creating better conditions and regulations for hospitality and creating new ways of teaching students align with the demand of this industry.

The report describes the pattern and motivation of tourists when they come to the museum. The report points out that visitors with past experience coming to museums before will have a more specific expectation (whether it’s high or low) compared to those who have never been to a museum before. It also shows that the primary purpose of travelers visiting museum is the interest in the theme of the museum, other purposes include visiting friends/family and school-related tour.

Moreover, the satisfaction of visitors was taken into account. Majority of tourists were satisfied with the quality of objects and artifacts in the museum, knowledge obtained when visiting such sites. However, visitors seemed disagreed with the idea of museum being a relaxing and atmospheric environment. This findings suggested managers creating a peaceful space to attract more visitors and consequently satisfy their expectations.

Last but not least, the research also suggested solutions for museum managers so that when visitors come to their museum, they are generally more satisfied than being dissatisfied. According to the survey, the uniqueness of museum collections seemed to be the most pivotal factor encouraging visitors coming to a site. It is obvious that a museum with collections that are rare and famous among public is likely to attract more customers. However, unique collections were not enough, to the specificity of this research, excellent staff or human resources forces also play an important part in satisfying visitors.

## **1.Introduction**

Museum has a quite long history since the 3rd century B.C. While museums have always been a crucial part in community life, their roles is changing recently to adapt the volatility. Within this context, understanding and measuring the influencers to the variation is essential for the directors of museum and local authority who are responsible directly for the maintenance of museums. Understanding factors that influence the satisfaction of visitors is upmost importance, as it also affects the future economy.

Through the years, the museum culture has presented every corner of the world. Today it has been so uncommon for any nation that does not have a museum, though small as it may be. This shows that the concept of the museum is globally accepted. According to International Council of Museum (2007), museum is defined as a not-for-profit, permanent institution for society use and opened to the public, which collects, preserves, researches, communicates and exhibits both tangible and intangible heritage for purpose of education, study and enjoyment. There are thousands of small, local and huge museum all around the world. Based on the function, form and management style, museums are divided into a wide range of types, which includes heritage centers, cultural centers, art museum, natural and sciences. Although many researchers try to make an assortment of museum, there is a significant overlap between these types of museums. Besides, the artifact exhibited in each museum is the most common way of identifying a museum type. More specifically, there are following categories: War/military museums, Art museums, Industrial museums, Science museum, Natural history museum, Archaeological museums, Maritime museums, Folk museums, Local history museums.





*Lanna Folklife Museum*

Traditionally, the role of museums is to collect and preserve cultural, religious and historical objects and materials, to research into them and exhibit them to the public for education, enjoyment and other purposes. The early museums encouraged only the educated people to visit, because of their elitism, uninspired theme (Emmanuel, 1999). In our modern society, it is necessary for museums to redefine their main functions and strategies to meet the expectations. Museums today must reflect events in society as well as become an instrument of appealing the attention to actions and events, which can raise the development in the community. Museum should become institutions then foster peace. For museums to maintain their relevance role in society, they should take unique resources as an advantage to become more responsive dynamic society.

Acknowledging satisfaction of visitors, tourism businesses will receive better information of influencer element to focus on their offerings. Oliver (1997) stated that satisfaction is the consumers' overall intellectual or intuitive response to product or service, consumers' judges of the level to which consumption-related fulfilled. Visitor's overall experience is a varied individual experiences that happens during the visitor's stay at the museum. These experiences may include interactions with a wide range of attributes, and are affected by the museum's

attitude toward tourists, the visitors' perceptions of service quality and pricing. Satisfaction at a destination is therefore regarded as "cumulative satisfaction" and an "compressed construct that give detail about customer's total consumption experience with a product or service" (Foster, 1999; Johnson and Anderson, 1995, p. 699).

The remainder of this report is structured as follows: firstly, a literature review helps to conceptualize the importance of visitor's experience at museum as well as the need of tailoring adaptable internal and external environment, so that museum can meet the visitors' rational and emotional mind. A detailed description of the research methodology with a focus on the questionnaire, study sites and data collection then follows. The empirical findings clarify the answer of every respondent, descriptive statistics of the museum experience items, the consequence of a paired-samples t-test, the impact of internal and external dimensions on overall satisfaction and behavioral intentions of visitors. Finally, a discussion of finding, conclusions and statements to the limitations of the research are also made based on the result of the study.

## **2. Literature review**

### **Visitor's Experience Satisfaction at museum**

Mentioning many museums currently, concerning to customer satisfaction issue becomes increasingly important in order to attract more visitors. Therefore, the visitor's satisfaction is a widely debated concept among tourism researchers from 1980s up to now (Oliver, 1980).

A wide range of the authors tried to look for the definition of museum concept before analyzing related aspects; however, because of the unreal investigation, the concepts considered to the certain level of ambiguity compared to the natural concept (Babin and Griffin, 1998). According to the traditional definition, visitor satisfaction suffers the influence from the cognitive precedents and the consequence of consideration between a subjective experience and a previous reference (Oliver, 1980). Related to this topic, many researchers conducted to analyze previously the important factors affecting the customer satisfaction in a museum scale. In the past investigation, the tourist rationality is focused on more than emotional elements; thus, leading to the limitation of understanding the topics (Swarbrooke and Horne, 1999). Nowadays, both the aspect of affective factors and rationality is equally deeply comprehensive; therefore, creating different ways of full understanding and defining the visitors' experience satisfaction (Laing et al., 2014). However, the fact that setting up a model of customer's satisfied/dissatisfied

experience mostly depends on practically experiential service dominating the cognitive element model considered as the limitation of the explanation for satisfaction concept (Bagozzi, 1997).

Applying to museum scale, the above research indicated that visitors' participation and experience is particularly relevant to the emotion influences in the satisfaction concept (de Rojas and Camarero, 2008). Taking these affirmations as a basis, several pieces of research concluded that visitors not only affected by the appearance of the museum, but also by the social, cognitive, and emotional value of itself (Caldwell, 2002 and Martín-Ruiz, Castellanos-Verdugo and Oviedo-García, 2010). Similar to the previous studies, Moreno Gil and Ritchie, 2008 also stated that visitors often pay attention to the affective and emotional dimensions of the museum's image rather than its cognitive aspects.

More specifically, the different detail aspects of service cases concerning to visitors' emotion and satisfaction at the museum scale are greatly recognized. In the real context of the museum, it is shown that environmental attributes of the museum and visitors' characteristics, can lead to so-called "museum fatigue", which reduce the customers' interest and badly affect their satisfaction (Davey, 2005, Jeong and Lee, 2006). Jeong and Lee (2006) showed three types of environmental attributes including exhibition environment, ambient environment, and museum size. More detail, the exhibition environment (for instance, the methods of exhibition, the content of exhibits, illumination and rest areas) positively influence emotional elements negative affected by the ambient environment (for instance, the density of visitors, noise, and complexity of circulation and thermal comfort). In contrast, museum size (the net size of the exhibition area and the total staying time) is the factor exerting the greatest influence on fatigue (Jeong and Lee, 2006). In conclusion, all the above studies stated the importance of emotion factor on the visitors' satisfaction so that the fact will be improved for meet the customer's expectation.

This study will focus more on the service and facilities such as the internal and external environment of the museum based on the emotion of the customer to evaluate their satisfaction. Huo and Miller (2007) indicated the measurement of the visitors' museum experience satisfaction consisting of individual perception composed of museum staff, facilities, such as cleanliness and accessibility, and experience, which were evaluated by authenticity and stimulation. In another research by Harrison and Shaw (2004), the more increasing levels of

satisfaction are the higher levels of loyalty behaviors are, normally ranging from intention to return and from intention to recommend. Besides, Museum managers need to be aware the impact that important decisive indicators influencing on visitors' satisfaction are customers' socioeconomic, demographic, and behavioral characteristics such as age, gender, income, marital status, occupations, education or ethnic background (Yavuz, 1994).

It could be summarized that the importance of the visitors' satisfaction is influenced by both rationality and emotional factors, even by the internal and external environment of the museum. Therefore, this study will be investigated and analyze deeply the degree of visitors' satisfaction at the museum through answer the below questions:

1. Why museums of all kinds nowadays have to change their points of view, putting more effort and resources on understanding their visitors?
2. What are determinant factors that influence visitors' satisfaction level at a museum?

### **3. Research methodology**

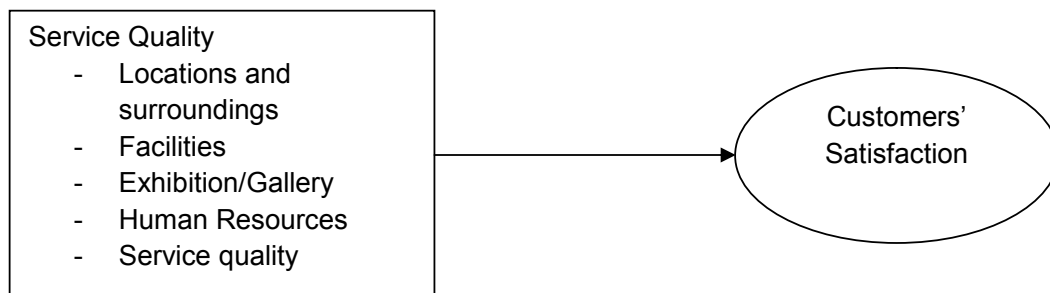
#### **3.1 Research model**

The satisfaction of a customer after using a service plays a pivotal part in business activities of a company, which is including a museum and other hospitality facilities. Researches on satisfaction of customers have been relentlessly improved and widely spread all over products and services after Parasuraman, Zeithaml and Berry's research (1985, 1988). Zeithaml and Bitner (2000) defines satisfaction is an outcome of guests' experience when they use a service. Moreover, visitors' satisfaction is their feelings about a product or a service that has met or exceeded their expectations. Kotler and Keller (2006) assumes satisfaction is a level of senses that a customer has when they compare their perceived quality to the expected quality of a product.

Parasuraman *et al* (1988) designed a model of 5 factors influencing customers' satisfaction towards the quality of services provided: Locations and surroundings, Facilities, Exhibition/Gallery, Human Resources and Service quality. These five factors are aligned with factors provided in our questionnaire (from B1 to B5) asking participants to grade from 1 to 5 (strongly disagree to strongly agree). As followed, quality of a service is measured by the difference between perceived quality (Perception) and expected quality (Expectation) of a customer. The service quality of such museums (K) are measured by:

$K_i = P_i - E_i$  with  $K_i = f(L, F_y, E_s, H, S)$ .

Many researches have testified the relationship between service quality and satisfaction towards a service (Lewis and Mitchell, 1990; Asubonteng *et al.*, 1996; Wisniewski & Donnelly, 1996). To sum up, Edvardsson, Thomasson, Ovretveit (1994) and Kotler *et al.*, assure the difference between perceived service quality and expected service quality plays an important part in improving customers' satisfaction. There are many researches about service quality and satisfaction of customers in hospitality in general; however, a thorough research about service quality in a museum conducted on a large scale from Thailand to Vietnam, from Malaysia to Japan has rarely been available.



***Research Model***

### **3.2 Measurement**

The Likert measurement uses 5 levels to measure the level of satisfaction of visitors about quality experience at such museums. In which, 1 – strongly disagree, 2 – disagree, 3 – neutral, 4 – agree, 5 – strongly agree asking customers' preferences on many criteria about the museum they were visiting.

Locations, time and surroundings measures such criteria towards the comfort and convenience of a visitor, including: easy to find the location of the museum, easy to access to the museum by different means of transportation, convenient opening hours, harmonized local ambience of the museum and unique building architecture and physical layout of the museum ambience.

Facilities were defined as museum's facilities with factors: convenient parking space, efficient ticket counter, suitable entrance fee structure, availability of public utilities & facilities inside the museum (information kiosk, toilet facilities,...), clear sign posting and directions, availability of facilities for disable people and availability of cafeteria.

Exhibition/Gallery means the criteria used to measure gallery collections within a museum, which includes: the exhibition is clearly, creatively and systematically displayed (in chronological order, by theme, by area, etc...), exhibits providing enough details and easy to understand, exhibits increasing knowledge about places and culture-heritage, clear and suitable labels / caption / text panel, variety of collections/artifacts, comfortable lighting system, the sound system support effectively the collections /artifacts, effective multimedia, providing unique experience and exhibits meet your expectations.

Human Resources refer to staff ability to meet visitors' expectation, including: supportive reception desk, neat appearance of the staff, friendly, helpful and courtesy staff, and the staff understand their visitors and usually support them actively.

Finally, service quality consists of criteria to assess the service within a museum: cleanliness of the facilities provided, cleanliness of public areas and utilities, visitors are carefully protected, the museum is safe and secure for the visitors and finally, the tools, equipment and related facilities are user-friendly.

### **3.3 Sample**

Participants choosing method: in order to apply the above model into reality, data of this research was collected by convenient random choosing method as giving out questionnaires to visitors within a museum.

As deciding the proper sample size, researchers followed suggestions from research of Hair *et al.* (2006). According to this research, the ratio between observations and variances should be 5:1. The model of this research possesses 31 variances, therefore the proper sample size should be  $31 \times 5 = 155$  observations. In reality, researchers gave out 153 questionnaires, really close to the supposed sample size.

### **3.4 Statistical Tool**

There are three steps applied in this survey:

Step 1: Use Cronbach's Alpha to access the reliability of measurement scale.

Step 2: Use EFA – Exploratory Factor Analysis to test the factors affecting satisfaction of customer experience and identify relevant component for each group of factors

Step 2: Use Logistic Regression Model to recognize factors that influence on customer satisfaction. Yes is 1, No is 0.

## 4. Results analysis and Findings

### 4.1. Description of the survey

There were 153 people doing the survey in two months between September and October, 2016. The manipulative factors in this survey include gender, age, occupation, and income illustrated in this table below:

Manipulative factors	Frequency (people)	Percent (%)
<i>Gender</i>	153	100
Female	92	60.1
Male	61	39.9
<i>Age</i>	153	100
Under 30	84	54.9
31 - 49	44	28.7
Above 50	19	16.4
<i>Occupation</i>	153	100
Employee	66	43.1
Student	46	30
Self-employed	24	15.7
Others	17	11.2
<i>Income</i>	153	100
Under 12 million	45	29.4
12 – 36 million	36	23.5
36 – 72 million	37	24.2
72 – 120 million	18	11.8
Above 120 million	17	11.1
Total	153	100

*Table 1: Manipulative factors of the survey*

As can be seen in the table, most of the guests who did the survey are female (60.1%) while the percentage of male is 39.9%. More than a half of all visitors are under 30 years old (54.4%), which is about 4 times higher than the number of those over 50 years old. Regarding occupation, 43.1 percent of the guests are employees, followed by students and self-employed (30% and 15.7% respectively) and others (11.2%). Among 153 respondents, the average amount of income fall between under 12 million and 36 – 72 million with most of them having income of under 12 million dollars (29.4). Very few people have the income of more than 120 million.

Most of the visitors are females, this indicates that females tend to be more willing to do surveys than male. In addition, most of them are under 30 and employed. This explains the reason why the majority of them have the income from under 12 million to 36 – 72 million.

#### 4.2. Motivation of visitors

The module A of the questionnaire explores the pattern & motivation of tourists visiting the museums. Therefore, by assessing to the museum experiences of visitors, the new challenges & issues faced by museums are recognized, which raises awareness among museum managers about adapting to changes to attract tourists and enhance customer experiences.

<b>Characteristics</b>	<b>Percent (%)</b>
<i>Frequency</i>	
First-time visitors to museum	28.1
Non first-time visitor to museum	71.9
<i>Purpose of visit</i>	
Quality family time	9.6
School related tour	14.8
Visit with out-of-town family/friends	26.7
Searching for particular	5.9
	46.7



information	4.4
Interest in the theme of the museum	
Others	
<i>Companion</i>	
Alone	11.9
Friends	62.2
Family	27.4
Guided tours	6.7
Others	1.5
<i>Awareness of museum</i>	
Printed media	26.7
Electronic media	30.4
Pamphlet	4.4
Signage	6.7
Others	31.1

***Table 2: Patterns & motivation of visitors surveyed***

When carrying out this survey among 153 tourists in different museum sites in Chiang Mai, Hanoi, Penang, 72% of interviewed people have their first visit to the museum. The remaining 28% shows the proportion of visitors with past museum experiences. Previous experience is one of the factors that form expectation. Visitors with past museum experience are likely to develop an ideal level of expectations based on their previous experiences, which means: positive experiences result in higher expectations, negative experiences result in lower expectations. In contrast, those who visit museum for the first time often form low expectations. Whereas, customer satisfaction is the measure of how service could meet or surpass customer expectations. Therefore, museums managers should know to manage the customer expectations in order to satisfy customers.

For travelers, the primary purpose of visiting museum is the interest in the theme of the museum. Visiting with out-of-town family/friends and school-related tour also are popular purpose of a

museum visit. Therefore, the companions of visitors are often friends (62.2%) and family (27.4%). In contrast, there is only a minority 5.9% of the visitors surveyed visit museum to seek for particular information. This could be understandable why there is a relatively low percentage of visitors go to museum with guided tours.

In the era of information technology, electronic media by far is the most common source for the visitors to gain information about the museums. Visitors also are aware of the museums from printed media and friends' recommendations with real experiences. Conversely, only very few tourists are aware of museum sites through signage and pamphlet.

Statement	Percentage of dissatisfaction ( $\leq 2$ )	Percentage of neutrality (=3)	Percentage of satisfaction ( $\geq 4$ )
This experience has increased my knowledge	3	19.4	77.6
It was very relaxing being here	15.0	29.9	55.2
There are lots of interesting things to see	7.5	15.7	76.8
I like the atmosphere of this museum	9.7	38.1	61.9

***Table 3: Satisfaction-and dissatisfaction-based ratings on museum experience***

In order to assess the level of satisfaction of visitors on the general museum experience, participants are asked to evaluate the extent to which they agree or disagree with above statements. Column 3 reports the percentages corresponding to the satisfaction ratings with a score of 4 or higher (satisfied or highly satisfied) and those corresponding to the dissatisfaction ratings with a score of 2 or lesser (unpleasant/negative rating or highly unpleasant/highly

negative rating). The center column of the table shows the percentages of neutrality, which refers to ratings with a score equal to 3 (neither satisfied nor dissatisfied).

According to the table, the majority of tourists are satisfied with quality of objects & artifacts showcased and knowledge acquired by visiting museums, with significant 76.8% 77.6% and in satisfaction rates respectively. However, there are relatively high degrees of disagreement and neutrality on the fact that the museum act as a relaxing and atmospheric environment. Together with the fact that visitors go to museum for the interests in the theme of the museum, this leads to the findings that although the primarily concerns of museums are providing a space to showcase artifacts, objects and visual arts and enrich the understanding of tourists about history and culture of the destinations, museum managers are advised to further make effort to create a relaxing space and form an unique ambience in order to attract more visitors and satisfy their expectations.

#### **4.2. Validity and Reliability**

The reliability of the measures was assessed using the internal consistency measure of Cronbach's Alpha. Cronbach's alpha statistics is widely used in social sciences, business and other disciplines. The value of the alpha is defined by number of test items, items interrelatedness and dimensionality (Tavakol & Dennick, 2011). Normally, the accepted range of Cronbach's alpha is 0.7, but for the psychology and management disciplines, the coefficients must be at least 0.6 and the Corrected Item- Total Correlation must be higher than 0.3 (Hair et al., 1998).

#### **Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.923	.924	31

**Table 4: Reliability Statistics**

The result showed that Cronbach's Alpha statistic is 0.923, which means the measurement scale is accepted.

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
VAR00025	116.7124	214.075	.312	.499	.924
VAR00026	116.7451	215.639	.303	.361	.924
VAR00027	116.5359	213.329	.390	.481	.922
VAR00028	116.7320	211.079	.450	.559	.922
VAR00029	116.5752	209.720	.514	.533	.921
VAR00030	116.9216	209.731	.460	.450	.922
VAR00031	116.6013	207.702	.584	.631	.920
VAR00032	116.6471	209.098	.572	.610	.920
VAR00033	116.8824	206.828	.565	.537	.920
VAR00034	116.8105	210.668	.473	.445	.921
VAR00035	117.3725	206.538	.514	.532	.921
VAR00036	117.3268	210.235	.407	.489	.923
VAR00037	116.5948	212.966	.449	.449	.922
VAR00038	116.6601	212.200	.426	.560	.922
VAR00039	116.5163	209.501	.589	.591	.920
VAR00040	116.6340	209.970	.586	.615	.920
VAR00041	116.7320	211.290	.464	.511	.922

VAR00042	116.7778	205.016	.649	.579	.919
VAR00043	117.0065	206.296	.581	.598	.920
VAR00044	117.1176	206.420	.597	.556	.920
VAR00045	116.6993	211.330	.488	.573	.921
VAR00046	116.6993	208.672	.598	.636	.920
VAR00047	117.0196	208.467	.569	.628	.920
VAR00048	116.8627	210.238	.502	.649	.921
VAR00049	116.8431	210.646	.505	.632	.921
VAR00050	117.0392	207.485	.607	.658	.920
VAR00051	116.6078	208.306	.583	.744	.920
VAR00052	116.5817	208.850	.605	.792	.920
VAR00053	116.4575	211.605	.483	.767	.921
VAR00054	116.3072	213.662	.458	.777	.922
VAR00055	116.5882	209.007	.563	.597	.920

*Table 5: Item-Total Statistics*

According to the above table, the Corrected Item – Total Correlation of all 31 variables are greater than 0.3 that means, all the items are reliable.

### **4.3. EFA – Exploratory Factor Analysis**

The result:  $KMO = 0.834$  ( $0.5 < KMO = 0.878 < 1$ ) & Bartlett (Sig.=  $0.000 < 0.05$ ) proves that the model is appropriate.

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.834
Bartlett's Test of Sphericity	Approx. Chi-Square	2439.150
	df	465
	Sig.	.000

**Table 6: KMO and Bartlett's Test**

The value of Cumulative (which is 67.02% and bigger than 50%) in the table shows (eigenvalue standard >1) there are 8 elements extracted and they explain 67.02 percent of variance. The first element has the highest possibility of explanation, the total percentage of variance is 31.34%. The second feature explains 7.03%, the third feature is 6.30%, followed by the fourth 6.00%. The fifth is 5.74%; the last three features are 3.90%, 3.43 and 3.25% respectively.

<b>Total Variance Explained</b>						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.717	31.344	31.344	9.717	31.344	31.344
2	2.180	7.032	38.376	2.180	7.032	38.376
3	1.954	6.304	44.681	1.954	6.304	44.681
4	1.861	6.002	50.682	1.861	6.002	50.682
5	1.780	5.743	56.426	1.780	5.743	56.426
6	1.211	3.906	60.332	1.211	3.906	60.332
7	1.064	3.432	63.765	1.064	3.432	63.765
8	1.010	3.258	67.022	1.010	3.258	67.022

**Table 7: Total Variance Explained**

Next is RCM (Rotated Component Matrix). In order to test the reliability of the variables, the factor loadings are considered after Rotation Component Matrix to eradicate variables not suitable for the model (the factors smaller than 0.3). The minimum value of the loading factors are all over 0.3, so the 31 variables are kept and separated into 8 categories.

Thanks to EFA, the 31 variables are kept and separated into 8 categories. The new 8 categories are given suitable names. The result is shown in the table below.

The Exploratory Factor Analysis and Varimax method indicate that the first component consists of 5 variables showing quality of the services in museums, so it is named service quality. The second component has 4 variables indicating the employees in the museums, so it is named Staff/Human resources. The third component includes 7 variables, it shows all facilities in the museum and it is called Museum's facilities. Next has 9 variables showing Museum's public utility; then followed by uniqueness of the collections having 6 variables. 7 variables are listed in Exhibition's interpretation. 5 variables are found in category location, time and surroundings while the last component Museum's accessibility has 3 variables.

<b>Rotated Component Matrix<sup>a</sup></b>								
	Component							
	1	2	3	4	5	6	7	8
VAR00053	.858							
VAR00054	.844							
VAR00055	.687			.307				
VAR00052	.640			.432				
VAR00051	.589			.374		.311		
VAR00048		.815						
VAR00049		.809						

VAR00050		.722						
VAR00047		.669						
VAR00030			.727					
VAR00031			.714					
VAR00032			.662					
VAR00034			.582			.402		
VAR00033			.559	.439				
VAR00035			.467	.613				
VAR00044				.605		.305		
VAR00042				.592				
VAR00043				.568	.346			
VAR00036			.471	.544				
VAR00045					.739			
VAR00046					.652			
VAR00041					.648			
VAR00038						.806		
VAR00040						.650		
VAR00039					.471	.535		
VAR00037						.522	.311	
VAR00028							.705	



VAR00027							.691	.319
VAR00029					.364		.646	
VAR00026								.747
VAR00025							.304	.698

*Table 8: Rotated Component Matrix*

#### 4.4. Logistic Regression Model

Table 8 presents Omnibus Tests of model coefficients. This result is considered when independent variables are taken into account. In this table, the interest is to look at the contribution of initial predictors added above or beyond correct percentage to the constant model.

<b>Omnibus Tests of Model Coefficients</b>				
		Chi-square	df	Sig.
Step 1	Step	79.187	8	.000
	Block	79.187	8	.000
	Model	79.187	8	.000

*Table 9: Omnibus Tests of Model Coefficients*

Eight variables (Service quality, staff/human resources, museum's facilities, museum's public utility, uniqueness of the collections, exhibition's interpretation, location, time and surroundings and museum's accessibility) have been added to the model. By adding these variables, -2log likelihood (deviance) has reduced by 79.187 on 8 degree of freedom which implies that there are much variations of museum visitor satisfaction. Looking at p value of step, block and model it can be seen that these items are significant (< 0.05). This concludes that the additions of the independent variables to the model are statistically significant. This shows that the model is significant.

Cox & Snell R Square and Nagelkerke R Square indicated that the model which includes the

eight independent variables explain between 10.7% and 16.6% of the variation in satisfaction. From table 9 it can be seen that only factor 8 is insignificant ( $\text{sig} = 0.513 > 0.05$ ) while others are significant.

<b>Variables in the Equation</b>							
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	X1	1.359	.590	5.304	1	.021	3.893
	X2	2.486	.778	10.210	1	.001	12.019
	X3	1.983	.561	12.495	1	.000	7.266
	X4	1.503	.482	9.719	1	.002	4.494
	X5	2.686	.780	11.863	1	.001	14.672
	X6	1.262	.453	7.775	1	.005	3.534
	X7	2.263	.649	12.136	1	.000	9.608
	X8	.273	.417	.427	1	.513	1.314
	Constant	5.867	1.413	17.246	1	.000	353.053

**Table 10: Omnibus Tests of Model Coefficients**

The Exp (B) column presents odds ratio and indicates that excellent service quality is 3.893 times more likely to make clients satisfied than being dissatisfied. Excellent staff/Human resources is 12.019 times more likely to make visitors satisfied than being dissatisfied, excellent museum's facilities is 7.266 times more likely to make visitors satisfied than being dissatisfied. Museum's public utility was 4.494 times more likely to make visitors satisfied than being dissatisfied. Strikingly, uniqueness of the collections was 14.672 times more likely to make guests satisfied than being dissatisfied. Excellent exhibition's interpretation is 3.534 times more likely to make guests satisfied than being dissatisfied, location, time and surroundings is 9.608 times more likely to make guests satisfied than being dissatisfied

while excellent museum's accessibility is 1.314 times more likely to make visitors satisfied than being dissatisfied.

The table above shows that the estimated model is now:

$$\text{Logit}(Y) = 5.867 + 1.359X1 + 2.486X2 + 1.983X3 + 1.503X4 + 2.686X5 + 1.262X6 + 2.263X7 + 0.273X8$$

Whereby;

Y = Satisfaction, X1 = Service quality, X2 = Staff/Human resources, X3 = Museum's facilities, X4 = Museum's public utility, X5 = uniqueness of the collections, X6 = Exhibition's interpretation, X7 = location, time and surroundings and X8 = Museum's accessibility.

## **5. Limitation**

It is obvious that all research papers bear in themselves limitation that they cannot avoid. Despite the hard-working attitude coming from researchers and the helpfulness of participants, this particular research project possesses a number of limitations. Firstly, the sample size of this research is an obstacle. In order to have a deep understanding about a subject of research, researchers must create a big enough sample size for their questionnaires, interviews, observations and so on. In terms of this paper, researchers were capable of collecting data from 153 tourists in different sites from Chiang Mai (Thailand), Hanoi (Vietnam), Penang (Malaysia),...It is relative to evaluate the number of participants is whether big or small enough, however, the team acknowledge very well that the bigger the sample size, the more accurate the data and information of such paper. Another limitation prevents the paper from reaching to the absolutely correct information is the longitudinal effects to researchers. The project asked students to travel from Chiang Mai (Thailand) to Hanoi (Vietnam), Penang (Malaysia) and departing in Kyoto (Japan) within approximately two weeks, which was about 4 – 5 days in each city. And in each destination, apart from collecting data, students needed to attend such conferences. It bears in our mind that to collect enough data, researchers must have spent at least one or two days in each museum of each city. However, the time was limited, therefore students could not have enough time and chances to collect data on a big enough sample size. The last limitation of this research is the fluency in a language that a research obtain. It was well informed that researchers coming from different countries with different languages and culture.

Even though researchers were very grateful of interpreters, it could not be as good as researchers conversing directly to participants.

## 6. Conclusion

Experience of museum visitors is among the most essential factor when it comes to customer satisfaction, and this paper has found a number of ways to improve the quality of experience from each tourist coming to a museum. It is clear that the attendance of tourists to a museum before plays a great role in deciding their quality of experience of their upcoming visits. People without past experience set their expectation rather low, while visitors with past experience set their expectation based on their previous visit. Tourists come to museums generally because of their themes, and for museum managers to lift visitors' experience to a new level, they need to seek for the uniqueness of collections within their sites as well as train their human resource forces to be more excellent to provide better services to the tourists.

## REFERENCES

Babin, B. and Griffin, M. (1998). The nature of satisfaction: An updated examination and analysis. 41(2), pp.127-136.

Bagozzi, R. (1997). Goal-directed behaviors in marketing: Cognitive and emotional perspectives. *Psychology and Marketing*, 14(6), pp.539-543.

Caldwell, N. (2002). (Rethinking) the measurement of service quality in museums and galleries. *International Journal of Nonprofit and Voluntary Sector Marketing*, 7(2), pp.161-171.

De Rojas, C. and Camarero, C. (2008). Visitors' experience, mood and satisfaction in a heritage context: Evidence from an interpretation center. *Tourism Management*, 29(3), pp.525-537.

Edvardsson, B., Thomasson, B. and Ovetveit, J., 1994, "Quality of Service: Making it Really Work," London, UK: McGraw-Hill.

Foster, D. (1999). Measuring customer satisfaction in the tourism industry. The paper presented at the Third International and Sixth National Research Conference on Quality Management, Melbourne, February 8-10, 1999.

Hair, Jr. J. F., Anderson, R. E., Tatham, R.L. & Black, W.C., 2006. *Multivariate Data Analysis*, Prentice-Hall International, Inc.

Harrison, P. and Shaw, R. (2004). Consumer satisfaction and post-purchase intentions: An exploratory study of museum visitors. *International Journal of Arts Management*, 6(2), pp.23-32.

Icom.museum. (2017). *Museum Definition- ICOM*. [online] Available at: <http://icom.museum/the-vision/museum-definition/> [Accessed 2 Feb. 2017].

Jeong, J. and Lee, K. (2006). The physical environment in museums and its effects on visitors' satisfaction. *Building and Environment*, 41(7), pp.963-969.

Johnson, B. & Christensen, L. (2012). *Educational research*. Thousand Oaks, Calif.: SAGE Publications.

Kotler, P., & Keller, K. L., 2006. *Marketing Management*, Pearson Prentice Hall, USA.

Laing, J., Wheeler, F., Reeves, K. and Frost, W. (2014). Assessing the experiential value of heritage assets: A case study of a Chinese heritage precinct, Bendigo, Australia. *Tourism Management*, 40, pp.180-192.

Lewis, B. R., & Mitchell, V. W. (1990). Defining and measuring the quality of customer service. *Marketing Intelligence & Planning*, 8(6), 11-17.

Martín-Ruiz, D., Castellanos-Verdugo, M. and Oviedo-García, M. (2010). A visitors' evaluation index for a visit to an archaeological site. *Tourism Management*, 31(5), pp.590-596.

Moreno Gil, S. and Ritchie, J. (2008). Understanding the Museum Image Formation Process: A Comparison of Residents and Tourists. *Journal of Travel Research*, 47(4), pp.480-493.

N. Arinze, E. (1999). *The Role of the Museum in Society*. Georgetown, Guyana: National Museum.

Northern Ireland Museums Council, (2014). *Guidance on Measuring Visitor Satisfaction*. Ireland: Northern Ireland Museums Council.

Oliver R., L. (1997). *Satisfaction: A behavioural perspective on the consumer*. New York: McGraw Hill.

Oliver, R. (1980). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, 17(4), p.460.

Parasuraman, A., V.A Zeithaml, & L. L. Berry, 1988. Servqual: a multipleitem scale for measuring consumer perceptions of service quality, *Journal of Retailing*, 64: 12-40.

Parasuraman, A., Zeithaml, V. A., Berry, L. L., 1985. A conceptual model of service quality and its implications for future research, *Journal of Marketing*, 49: 41-50.

Swarbrooke, J. and Horne, S. (1999). *Consumer Behaviour in Tourism*. Butterworth Heinemann, Oxford.

Wang, Y. (2016). *MORE IMPORTANT THAN EVER: MEASURING TOURIST SATISFACTION*. Queensland, Australia: Griffith University.

Yavuz, N. (1994). A market segmentation study of visitors to North Cyprus through importance-performance analysis of destination attributes. *Virginia: Virginia Polytechnic Institute and State University*.

Zeithaml, V. A. & M. J. Bitner, 2000. *Services Marketing: Integrating Customer Focus Across the Firm*, Irwin: McGraw- Hill.