Factors Influencing Travelling Behavior and Choice Among ASEAN Population

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Abstract

The purpose of this research is to investigate factors influencing travelling behavior and choices among ASEAN population which comprises Thailand, Malaysia, Indonesia, Myanmar, Lao PDR, Cambodia, Singapore, Vietnam, Brunei, and Philippine. This study has developed some theoretical part involving panel data analysis methodology. The factors being studies are the exchange rate, tourist's expenditure, investment on transportation, and number of hotel accommodations. The results of this research showed that all factors under study significantly and clearly affect the number of ASEAN travelers. These are, similarly, the same direction of influences of those other factors comprising of traveler spending, investment on public transportation and hotel availability. In fact, it would be illustrated that exchange rate, traveler expenses, government spending on public transportation as well as availability of hotels have also influenced on the advancement of tourism business in order to provide enough accessibility because of the expanded economic engagement towards ASEAN Economic Community, of which all government policies sharing the same objectives to prioritize and encourage it to be a future prosperity of this region. Therefore, the results of this research are like a recommendation that can be useful for the more clearly formulation of the state policy in order to achieve more effectiveness and efficiency of the development policy of the country in the future.

Keywords: Travel, Behavior, Choice, ASEAN

Introduction

Nowadays, there is an collaboration between regional intergovernmental organizations in Southeast Asian region comprising 10 countries since the year 2015, which promotes intergovernmental cooperation and facilitates economic, political, security, educational, and sociocultural integration among its members and other countries in Asia. Especially, in economic area, there is a development of value added in regional, and empowering competitiveness among each other. For instance, developed connectivity project between highways, rails and logistics. ASEAN tourism tends to grow continuously, making some changes in economic systems affecting all countries adapting themselves for this situation particularly, tourism dimension.

ASEAN Economic community (AEC), established in 2015, aims to allow the free flow of population, goods, services, investment and labor, making travelling in ASEAN countries a

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lot more convenient (ASEAN Secretariat, 2014). Therefore, this means that effectively tourism policy would be completely necessary for strengthening country's competitiveness. As can be seen clearly that tourism aspect has always played an important influence on national development in terms of economic and socio-cultural aspects. In fact, this research trying to understand how the factors behind tourism industry makes an effect on number of travelers in those 10 countries in ASEAN. There are perhaps advantages for supporting both tourism and economic in this region, and this research also studied dominant prerequisites on how ASEAN community works on number of tourism.

There are enormous variety of definitions on "Tourism". In 1963, there was United Nations Conference on International Travel and Tourism, Rome, which launched recommendations on international travel and tourism. This conference has given the definition towards tourism which was described the movement of people to a destination with various purposes; including, leisure, conference, and visiting relatives. Some also explains that this would be a joyful journey, and business administration related to tourism. Meanwhile, tourists mean person who is visiting a place for pleasure and interest, and then they will return to their accommodations consecutively. However, the word "tourism" has its own various definition not only the do they mean the act and process of spending time away from home in the pursuit of recreation, relaxation, and pleasure, but they are also included the mobilization making use of the commercial provision of services together with domestic and international tourism. As this means that it is a pleasingly collaborative process. Currently, tourism industries have been tremendous business sector as we can summarize their meaning in three different aspects, described in the following paragraph. First of all, tourism describes the temporary movement of people from their hometown to another. Second, it would be willingness of people without any compulsories. Lastly, the objective of this journey is not for earning rewards or interests (Tucker & Sundberg, 1988).

Visitors would be elaborated its definitions by identifying 2 primary categories.

1) Tourist is a person coming to the country for temporarily legitimate reason and who stays at least 24 hours.

2) Excursionist is any person visiting a country other than his residence and remaining less than 24 hours.

3) Thailand also adopted these core meanings and for statistical records for persons coming to the country for at least 24 hours and not more than 60 days, belonging with his objective to do some activities.

United Nations also classify the international tourist's statistics as, to conclude, the purposes of travelling, it would be categorized into 4 directions:

1) Travelling for vacation, visiting families, recuperation and etc.

2) Participating conference or being as cluster delegations, like religious and athlete representation.

3) Business contact, but it doesn't involve with seeking for profits.

4) Roaming in common with cruise ships which stop at the ports, although duration is over 1 night.

Factors manipulating travel habits are classified into 3 types as following

1) Attraction, contains a number of key elements that fascinate visitors and meet their needs upon arrival. Areas where number of traveler interested to approach necessarily provide one attractive sightseeing or further. If there are plenty of tourist spots, many of travelers will come to visit there. Subsequently, tourist attractions are exemplified into two distinctive groups; namely, natural attraction factors and historical and cultural attraction factors. Heritage site, created by civilization, is an official location where pieces of cultural, or social history

have been preserved due to their cultural heritage value. This persuaded individuals to explore once such as ancient city or longstanding palace.

2) Facility, something that makes an action, operation, or course of travelling becomes easier. Accommodation is one of the most important things; i.e. hotel, resort, bungalow as well as guest house. The second most significant is consuming, which requires accessibility to restaurants and tourist information available.

3) Accessibility, accessible tourism is the ongoing endeavor to ensure tourist destinations, products and services are accessible to all people.

Study discovered that one of the economic factors have an influence on tourism is numerous. Nonetheless, this study will consider national income, tourism expenditure per person, exchange rate among 10 ASEAN countries (unit: us dollars), and investing on public transportation in these 10 countries.

Literature Review

Study about the information of principal factors throughout tourism industry in ASEAN

ASEAN is the regional where tourism industry has given mainly benefits and economic growth. According to ASEAN GDP, Thailand has achieved the highest number of GDP earning by tourism, then Malaysia, Singapore and Philippine are reached a number of GDP consecutively with a record of 28.801, 23.318, 15.167 and 5.768 (World Travel and Tourism Council, 2013). This has strengthened business sectors to foster their competitiveness in international market, making those ASEAN countries have plentiful dynamic and become world producer (ASEAN Secretariat, 2014). Economic integration in several countries; including, bilateral, multilateral and regional cooperation, has a lot more advantage as mechanism for constructing economic negotiation power and reinforcing nation competitiveness. Particularly, the objective of establishing ASEAN is to reunite and to support adjacent collaboration among 10 nation countries in terms of security, economic and socio-culture, making these become closer relationship and step forward to be an effective ASEAN community. Most entrepreneurs, assumes that relevant factors for developing tourism industry are tourist attractions, tourist publiccations, public utilities, public transportations, development of tourist attractions (Suwanvijit, 2014).

Tourism industry is one of the service sectors, which have exhibited crucial dimensions to countries' economic system in many countries since it is the way to accumulate foreign currency and employment. Owing to information published by the World Tourism Organization – WTO, tourism comes together with employment rate both direct and indirect approach. For example, direct approach composes of guides, several occupations in hotel. Nowadays, there are 9.3 million employees in this industry, counted to be roughly 3.2% of entire employment. Apart from that, in ASEAN, there is also indirect approach; namely, taxi and etc. around 25 million (ASEAN Secretariat, 2014). It can be obviously seen that this tourism industry performs a significant role in ASEAN community, hence ASEAN country members signed the numerous agreements for developing tourism industry such as ASEAN Tourism Agreement (ATA), ASEAN Framework Agreement on Services (AFAS), ASEAN MRA on Tourism Professionals or ASEAN MRA on Tourism Professionals which is a latest progression regarding ASEAN service industry. The purpose of this is to advance the capability of ASEAN service provider to accept recognition from domestic international organization and other ASEAN members participating in this agreement. This collaboration concentrates on mobility of internal tourism workers under the same laws as well as regulations, and increase equality among these ASEAN countries. Likewise, this also focus developing efficiency of tourism human resources by applying a core method of minimum competency.

Methodology

The given information which is secondary data involves with panel data analysis to examine essential factors effecting travel behavior and choices among ASEAN citizens and the model would be demonstrated as following.

$$Y_{it} = \alpha_i + \beta_{1i}EX_{it} + \beta_{2i}pdt_{it} + \beta_{3i}tra_{it} + \beta_{4i}hot_{it} + \varepsilon_{it}$$

Where Y_{it} is a number of people travelling to ASEAN in country i during t-time.
EX_{it} is an official exchange rate of country i during t-time.
pdt_{it} is tourist expenditure in country i during t-time.
tra_{it} is amount of transportation investment in country i during t-time.
hot_{it} is a number of hotels established in country i during t-time (I = 1, 2, 10).
t is time data in this research.
ε_{it} is a statistical disturbance during t-time.
β_i and α_i are parameters.

This research studies about factors influencing travel behavior and choice over ASEAN populations by using technical method of Panel Co-Integration Model, which can be divided here.

Part 1: study's result applying Panel unit root among those variables showed some distinctions, which are LLC Test, Breitung Test, Hadri Test, IPS test, and Fisher Type Test by using Fisher-ADF and Fisher-PP.

Part 2: the outcome of Panel equation testing is analyzed by Hausman Test and Redundant Fixed Effect Test.

Part 3: the outcome of estimated Panel model by using Ordinary Least Square (OLS), and Dynamic Ordinary Least Square (DOLS).

Results

Panel Unit Root Test

Due to the panel information used in this research was likely to be unbalanced panel data, there was analyzing panel unit root though lenient Fisher-type, without Balanced panel data. This is because it is not similar as LLC, Breitung and Hadari Lm test (Hsiao, 2017).

Table 1 Results of Panel Unit Root Test (Fisher Type Test by using Fisher-ADF)

Results of Panel Unit Root Test						
Methodology		**ADF**				
		Level			1st Difference	
Variable		None	Intercept	Trend & Intercept	None	Intercept	Trend & Intercept
int	ADF-Fisher Chi-square	-	-	-	51.8148 (0.0001)	52.4935 (0.0001)	66.1364 (0.0000)
ex	ADF-Fisher Chi-square	-	49.7263 (0.0002)		98.7731 (0.0000)	-	40.0375 (0.0049)

Table 1 Results of Panel Unit Root Test (Fisher Type Test by using Fisher-ADF) (Cont.)

		Results of Panel Unit Root Test					
Methodology		**ADF**					
		Level			1st Difference		
	Variable	None	Intercept	Trend & Intercept	None	Intercept	Trend & Intercept
pdt	ADF-Fisher Chi-square	-	-	-	92.2974 (0.0000)	111.252 (0.0000)	91.2473 (0.0000)
tra	ADF-Fisher Chi-square	-	-	-	87.82.54 (0.0000)	69.94.36 (0.0000)	58.0707 (0.0000)
hot	ADF-Fisher Chi-square	-	-	47.3903 (0.0005)	56.7081 (0.0000)	111.044 (0.0000)	-

Source: calculations

Table 2 Results of Panel Unit Root Test (Fisher Type Test by using Fisher-(ln)ADF)

		Results of Panel Unit Root Test					
Methodology		**(ln)ADF**					
		Level			1st Difference		
	Variable	None	Intercept	Trend & Intercept	None	Intercept	Trend & Intercept
int	ADF-Fisher Chi-square	-	-	31.7600 (0.0459)	109.542 (0.0000)	105.211 (0.0000)	-
ex	ADF-Fisher Chi-square	-	41.3664 (0.0033)	40.4830 (0.0043)	99.8876 (0.0000)	-	-
pdt	ADF-Fisher Chi-square	-	-	31.9717 (0.0436)	117.470 (0.0000)	103.383 (0.0000)	-
tra	ADF-Fisher Chi-square	-	-	34.2898 (0.0242)	112.580 (0.0000)	73.4088 (0.0000)	-
hot	ADF-Fisher Chi-square	-	-	61.6536 (0.0000)	73.9800 (0.0000)	101.568 (0.0000)	-

Source: calculations

Table 3 Results of Panel Unit Root Test (Fisher Type Test by using Fisher-PP)

		Results of Panel Unit Root Test					
Methodology		**PP**					
		Level			1st Difference		
	Variable	None	Intercept	Trend & Intercept	None	Intercept	Trend & Intercept
int	PP-Fisher Chi-square	-	-	-	66.6352 (0.0000)	61.6139 (0.0000)	97.0008 (0.0000)
ex	PP-Fisher Chi-square	-	75.0949 (0.0000)	39.9451 (0.0051)	100.456 (0.0000)	-	-
pdt	PP-Fisher Chi-square	-	-	-	121.093 (0.0000)	108.448 (0.0000)	112.108 (0.0000)
tra	PP-Fisher Chi-square	-	-	-	102.548 (0.0000)	72.0417 (0.0000)	61.5495 (0.0000)

Table 3 Results of Panel Unit Root Test (Fisher Type Test by using Fisher-PP) (Cont.)

		PP					
Methodology							
		Level			1ˢᵗ Difference		
Variable		None	Intercept	Trend& Intercept	None	Intercept	Trend& Intercept
hot	PP-Fisher Chi-square	-	-	44.1867 (0.0014)	96.3012 (0.0000)	113.481 (0.0000)	-

Source: calculations

Table 4 Results of Panel Unit Root Test (Fisher Type Test by using Fisher-(In)PP)

Results of Panel Unit Root Test

		(ln)PP					
Methodology							
		Level			1ˢᵗ Difference		
Variable		None	Intercept	Trend & Intercept	None	Intercept	Trend & Intercept
int	PP-Fisher Chi-square	-	-	-	113.171 (0.0000)	109.873 (0.0000)	129.232 (0.0000)
ex	PP-Fisher Chi-square	-	114.760 (0.0000)	52.4016 (0.0001)	98.5001 (0.0000)	-	-
pdt	PP-Fisher Chi-square	-	-	-	130.783 (0.0000)	112.606 (0.0000)	103.245 (0.0000)
tra	PP-Fisher Chi-square	-	-	-	111.256 (0.0000)	81.4166 (0.0000)	81.3263 (0.0000)
hot	PP-Fisher Chi-square	-	45.0179 (0.0011)	58.6487 (0.0000)	101.488 (0.0000)	-	-

Source: calculations

Hausman Test

The objective was to compare Fixed effect model and Random effects by using statistics to test the hypothesis. The result was showed that Fixed effect is the most suitable for this research.

Table 5 Hausman test

	coefficients		(b-B)	Sqrt
	(b) Fixed	(B) random	Difference	(diag(V_b-V_B))
ln_ex	-0.2215842	-0.366342	-0.1849501	0.0633783
ln_pdt	0.3409325	0.3782436	-0.0373111	0.0144244
ln_tra	0.0474648	0.0634436	-0.0159788	0.0110127
ln_hot	0.3893918	0.2090848	0.180307	0.067127
b = consistent under Ho and Ha; obtained from xtreg				
B = inconsistent under Ha , efficient under Ho; obtained from xtreg				
Test : Ho: difference in coefficients not systematic				
Chi2(4) = (b-B)' [(v_b-v_B)^(-1)] (b-B)				
= 15.13				
Prob>chi2 = 0.0044				

Source: calculations

According to panel information, there is combination between two groups of data. Consequently, after summarizing the suitable model, it was to investigate economic problems because perhaps it may lead to problem of serial-correlation; including, Heteroskedasticity in this model or not.

Problems solving, Serial-correlation and Heteroskedasticity

There are some equation problems on Serial-correlation and Heteroskedasticity with new model by applying feasible generalized least squares, and the new outcomes were shown here.

Table 6 Feasible Generalized Least Squares

Linear regression, correlated panels corrected standard errors (PCSEs)					
Number of gaps in sample: 9		Number of obs = 106			
Group variable: country		Number of groups = 10			
Time variable: year		Obs per group: min = 3			
Panels: heteroskedastic (unbalanced)		Avg = 10.6			
Autocorrelation: no autocorrelation		Max = 19			
		R-squared = 0.7742			
Estimated covariances = 10		Wald chi2(4) = 534.46			
Estimated autocorrelations = 0		Prob > chi2 = 0.0000			
Estimated coefficients = 5					
Ln inter	**Coef.**	**Het-corrected Std. Err**	**Z**	**P>|z|**	**[95% Conf. Interval]**
Ln ex	0.0775925	0.0162539	4.77	0.000	0.0457354
Ln pdt	0.2007071	0.06522	3.08	0.002	0.0728782
Ln tra	0.6131126	0.1612371	3.80	0.000	0.2970937
Ln hot	0.1710839	0.0548118	3.12	0.002	0.0636546
cons	8.177639	0.591881	13.82	0.000	7.017573

Source: calculations

Due to this study, latest experiment, which is the best experiment result, found that exchange rate (In ex), tourist expenditure (In pdt), number of established hotels and infrastructure investment (In tra) have a significantly dominant impact on 95% of confidence. Independent variables have positive coefficients, so it means that if this variable increase, number of tourist travelling to ASEAN will upsurge. While it can be explained that independent variable can describe the outcome of dependent variable.

Discussions and Conclusion

According to this study, exchange rate, tourist expenditure, including all costs of travelling in ASEAN, investment on transportation, and number of established hotels increased continuously each year. In this research, the information from 1998 to 2017 showed a similar tendency with number of travelers among 10 countries. In fact, if exchange rate in ASEAN is depreciated when compared to US dollar, a number of traveler in ASEAN will increase. Furthermore, it is more investment on infrastructure which means the comfortable method, making a lot more tourists will come for travelling. When tourist expenditure increased, tourism entrepreneur also gains more income individually. If this statement is relevant to the information clarifying above, there are a lot more tourists in this region and in Thailand. In other words, this represents the similar transformation movement. Study result discovered the

variables, which are exchange rate, tourist expenditure, investment in infrastructure, have a positive impacted on tourist in 10 countries in ASEAN. These all factors have tremendous dominant to an alteration of number of travelers in ASEAN.

When exchange rate in ASEAN is depreciated when compared to US dollar, number of travelers in ASEAN will increase. Moreover, there is more investment on infrastructure, making travelers can access to transportation easily and this would be more attractive to tourists. Similarly, if numbers of tourists increase, tourism entrepreneur also gains more income per person. Obviously, there should be more supported policy in several sectors; for example, government, public and private sector, district office for local administration, as well as tourism organizations could develop more tourism facilities respect to many areas. There is administration on tourism resources which should advance the quality and standard of sustainable service divisions for increasing number of travelers constantly. Therefore, government should encourage investment in transportations to be more well-organized capability. Thailand has a chronical problem in public transportation for travelers. There is, recently, relevant policy which aims to expand connectivity among countries in ASEAN in order to appeal travelers in all over the regions.

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