AN ANALYSIS OF INTERNATIONAL TOURIST BEHAVIOR TOWARDS TOURISM SECTOR IN KELANTAN

Suliadi Firdaus Sufahani[1], Zuhaimy Ismail[2] and Marinah Muhammad[3]

[1]Department of Sciences and Mathematics, Faculty of Science, Technology and Human Development, Universiti Tun Hussein Onn Malaysia, 86400 Batu Pahat, Johor
suliadi@uthm.edu.my

[2]Department of Mathematics, Faculty of Science, Universiti Teknologi Malaysia, 81310 Skudai Johor
zuhaimyi@yahoo.com

[3]Department of Earth Science, Faculty Agro Industry and Natural Resources, Universiti Malaysia Kelantan, Locked Bag 36, 16100 Pengkalan Chepa, Kelantan, MALAYSIA
marinah@umk.edu.my

Tourism is an interesting, important and most extensive area to be investigated and developed. It brings obvious economic gains and creates job opportunities in service and manufacturing sector. Therefore, it is not a surprise that tourism is one of the most important contributors toward economic activities in many parts of the world including Malaysia and in particular the Kelantan State. The objectives of this study are; to develop a summary profile of the international tourists in Kelantan, to analyze the best practice in attracting the international tourist and lastly to determine an overview of the international tourist behaviour towards tourism in Kelantan. This paper presents an analysis of the data, retrieved from the guest book at the Kelantan Tourist Information Centre, TIC, using descriptive and cross tabulation with Chi Square test for independence and also Pareto analysis. The results can assist the decision maker to ensure all developments and promotion's plan are fully developed and implemented efficiently to the fullest extent. Through the findings, Kelantan was described as a beautiful, nice and interesting destination. It also consist a lot of unique attraction and friendly neighbourhood. Moreover, the international tourists prefer to make Kelantan as a transit before continuing their journey to other destination such as Thailand and Perhentian Island, Terengganu. Therefore, the responsible parties should take major step forward by optimizing the development of Kelantan's tourism sector in three categories of attractions; natural attractions, culture, craft and heritage attractions and shopping arcade attractions.

Keyword: International tourists profile, quantitative method, Chi square method, Pareto chart, Kelantan Tourists Information Centre.

Introduction

Tourism is one of the most important investments that each country could offer including Malaysia. It leads to several economic gains and increased revenue for industries such as transportations, restaurants, hotels and also things that related to suppliers, entertainments, money exchange and medicals. Like other countries, Malaysia is well known for its delightful and authentic attraction. One of the states in Malaysia that is famous for its natural attraction and beautiful destination is Kelantan. Tourism is the second most important money spinner for Kelantan besides agricultural sector. It contributes about 30 percent of the Kelantan's GDP in the year of 2006 and RM 1.2 billion was generated by the state from the tourism industry [4]. One of the ways to investigate the tourism demand for the country is by analyzing the tourist arrival data. Based on the result, it can help the decision maker to implement a better development and promotion's plan, efficiently to its fullest extent. A part from that, tourist profile and behaviour should also be investigated before we begin with the forecasting and modelling of the tourism demand.

Since 1st April 1994, the Kelantan's Tourist Information Centre, TIC has been given the responsibility to transform Kelantan as a famous tourist destination in the country. On January 2007, TIC has taken an initiative steps by collecting the tourist profile data through guestbook. However, there was no further analysis is made of the data. Therefore, this study provides the genuine result and study on the international tourist behaviour towards tourism industry in Kelantan. During the year of 2009, a total number of 836 international tourists visited TIC in order to find information on Kelantan. 73 percent of them are European. They were mostly from France and followed by Netherland, United Kingdom and Germany. Another 10 percent are from Oceania countries namely Australia and New Zealand and the rest are from various parts of the world.

Figure 1 shows the number of visitor that visited Kelantan's Tourist Information Centre from January 2009 to December 2009 and from January 2010 to August 2010. Both data were used to compare the patent of tourist arrivals in Kelantan. The diagram is clearly shows that the highest tourist arrivals for both years are in July. This is because, most of visitors were from European countries and July is a holiday season for them. As a leading country in receiving inbound tourist within ASEAN region [2], definitely Malaysia will be the first choice of destination for international tourist; thereby it could also lead to an increment of international tourist to Kelantan state.
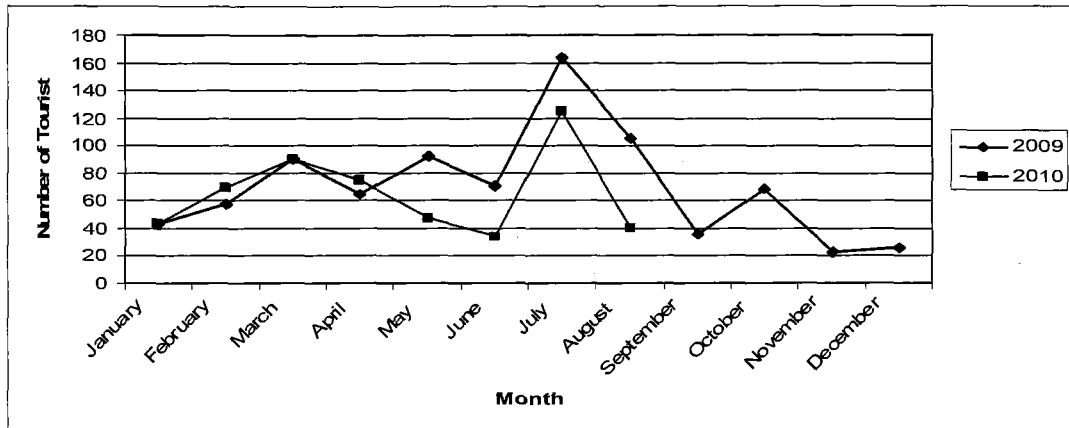
Figure 1: Number of Visitor Visited Kelantan's Tourist Information Centre from January 2009 to August2010

One of the objectives for this study is to develop a summary profile of the international tourist that came to Kelantan. It can be done by analyzing the data from the Tourist Information Centre Guestbook. This study also wishes to analyze the best way or methods to attract more international tourist to Kelantan. Another objective of this study is to give an overview of the international tourist behaviour towards tourism sector in Kelantan. This will help the decision maker to come out with a better promotion plans and attract more international tourist to visit Kelantan.

Forecasting models must be developed with a clear understanding in both the nature of the situation for which a forecast is desired and the resources available for making the forecast [18]. It is important to ensure that the variable selected relates directly to the forecast data needed [17], This does not mean that forecasts are useless, but that those who use them should be constantly monitoring their operating environment to detect any factors that indicate any inconsistencies or irregular patterns [8].

This paper begins with a brief description on the profile background of the international tourist that came to Kelantan. In the second section, we provide the data source of the study and the proposed analysis. Then follow by research methodology in the third section. In this paper, we will produce some results and analysis in the forth section and finally the conclusions will be made.

Data

This paper presents an analysis of the secondary data than obtained from the guestbook at the Kelantan's Tourist Information Centre, TIC. A tourist, who comes to TIC and wishes to seek for information about Kelantan, will be asked to fill out a form that available in the guestbook. The form requires some information such as the tourist name, age, country of origin, comment about Kelantan, length of stay and next destination. Recent research found that, tourism demand modeling and forecasting research relies heavily on secondary data in term of model construction and estimation [19]. This study analyzed the tourist profile data that was collected in year 2009. The total number of international tourists that came to Kelantan during the year of 2009 was 573,649 and the breakdown by country of origin is shown in table 1. A total of 852 international tourists came to TIC to find information about Kelantan. However out of the figure only 365 have completed the form in the guestbook. Therefore, the finding of this study was based on 365 sample size of the international tourist.

Table1:   **International Tourist Arrivals in Kelantan by Country for year 2009**

Continental	Country	Total	Percentage %
Asia	Thailand	549153	95.7
	Indonesia	2765	
	Singapore	1345	
	Philipine	1654	
	China	137	
	Middle East	106	1.2
	Taiwan	33	
	Hong Kong	5	
	Pakistan	238	
	Japan	450	
	South Korea	68	
Oceania	Australia	334	0.1
	New Zealand	117	
Europe	U.Kingdom/ Ireland	1657	
	Germany	774	
	France	813	
	Norway /Sweden /Denmark /Finland	733	
	Belgium /Luxumberg /Netherland	411	1.1
	Russia	164	
	Others West Europe	940	
	East Europe	298	
North America	United State Of America	568	
	Canada	545	0.2
South America	Latin America	172	
Others		9835	1.7
	Grand Total	**573649**	**100.0**

Source: Kelantan Tourist Information Centre

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Research Methodology

The data were analyzed by using a quantitative method. The first step of the data analysis is the descriptive analysis, where we want to see the overall pattern of the data set. Statistical techniques that involved in the descriptive analysis were basically frequency distribution, mean, median, variance, standard deviation and coefficient of variation. Frequency distribution is a multiple-column table containing information on certain parameters; presented in frequencies and percentages. Mean and median are the measurements of average values on all data cases. It tells us about the general magnitude of the values or the observation on a certain variable. Variance, standard deviation and coefficient of variation are the measurement of variability values of a variable. They have likely known to measures the reliability of the mean. Most researches used these techniques at the initial stage of data analysis in order to explore the data and understand their characteristics with their statistical implications.

There are many literatures on statistical method that were used in conducting a certain research. For instance, frequency distribution and standard deviation were used to examine the variability in the perceived service quality attributes of public transport in Kuala Lumpur [1]. In 1996, standard deviation was used in the study on excessive daytime sleepiness by interviewing 1,000 young adults in Southeast Michigan, USA [6]. Recently, statistical method was used to determine the social acceptance levels and problems in the utilisation of renewable energy sources for different end-uses [12]. This method has continued to be used by other scientist and researchers [15], [16].

In additions, analysis of cross tabulations was also used to develop the contingency table for two categorical variables. Through this analysis, Chi Square test for independence was used to determine whether there is a significant relationship between two categorical variables or not:-

H_o : There is no relationship between the variables.
H_1 : The exits a relationship between the variables.

The significance level chosen for two tailed Chi Square test was 0.05. The cross tabulation analysis also included the correlation value; to measure the level of correlation between two categorical variables. For example, chi-Square and contingency table were used to study the differential response of patient with different psychiatric diagnoses to a given rehabilitation programme [5]. It also used to examine the world's image from an African perspective, exploring those countries in the world that are best known to Africans and the factors responsible for the pattern of recall and representation in the maps [9]. While Summers [20], used chi-square to identify factors that are associated with forecast management and tree planting practices of small farmers in the Brazilian Amazon.

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This study also considered the Pareto analysis for the further investigation of the data. The technique helps the decision makers to select few good options from a long list of options. The Pareto's approach is called the "80/20 Rule."

Result and Analysis

This section describes the data analysis and the results obtained from the study. The main objective of this study is to develop a summary profile of international tourist that came to Kelantan. This summary was graphically shown in figure 2 until figure 6. Form the findings, it shows that international tourists fully describe Kelantan as a great destination with beautiful, nice, interesting and unique attractions, along with helpful, friendly and respectful people. Based on the population of international tourist to Kelantan, shown in Table 1, no doubt that Thailand contributes the highest number of visitor compare to other countries. However, their main purpose is to do business and not for holiday. Moreover they did not visit the Kelantan's Tourist Information Centre, TIC. Apart from Thailand, European countries contribute the second largest number of tourist to Kelantan. Fair enough to say, a total of 76.4 percent of the sample that came to TIC was from European country.

The largest age group of the respondents in the sample, with a total percentage of 44.7 percent, is between 21 and 30 years. Other respondents with age group between 31 and 50 years made up to 36.7 percent of the total sample. This clearly shows that young international tourists prefer to travel to Kelantan due to its unique and beautiful attraction. Such as its unspoiled beaches (Pantai Sri Tujuh, Cahaya Bulan, Sabak, Melawi, Irama and Bisikan Bayu), cool clean rapids (Jaram Linang, Jeram Pasu, Bukit Bakar and Lata Rek), Gunung stong (Jelawang waterfall and cave), Lojing Highland (Reffelisia, hot spring and rainforest), National Park Kuala Koh and Tasik Pergau. These natural resources are unique and interesting to explore by youngsters because this kind of destination often offers outdoor activities such as kayaking, jungle tracking and lots more.
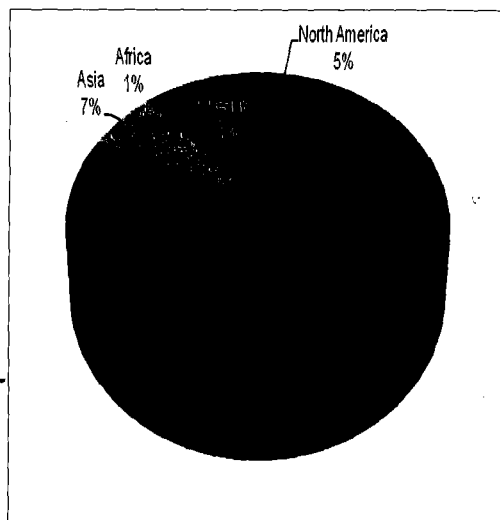

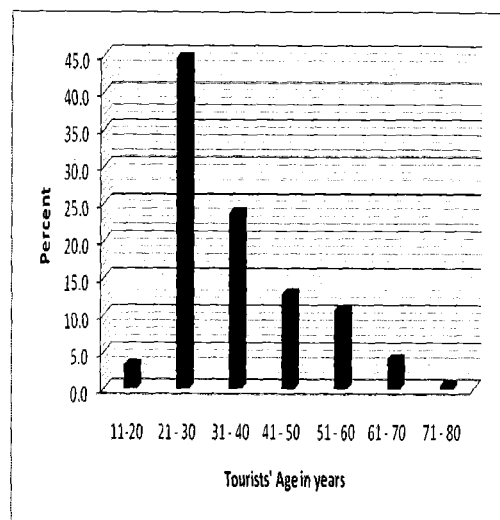**Figure 2: International Tourists' Origin**
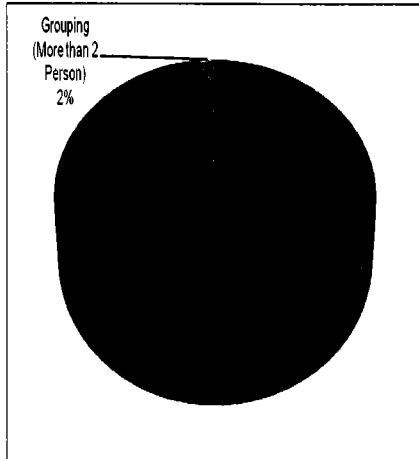

Figure 3: International Tourists' Age
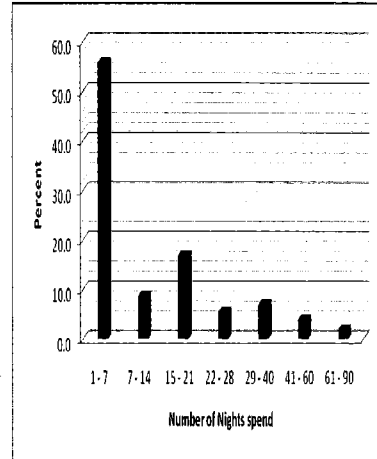
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Figure 4: Travel Party Type   **Figure 5: Number of Nights in Kelantan**

Based on the research, 73.2 percent of the total respondents that came to Kelantan travelled alone and the other 25.2 percent travelled with spouse. They normally stay in Kota Bharu up to seven days before proceed with their next destination. International tourists usually prefer to make Kelantan as a transit before continuing their journey to Thailand or Perhentian Island, Terengganu [4]. This statement was proved based on the analysis results that shown in Table 2. A total of 22.2 percent of the respondent preferred Perhentian Island as their next destination. A total of 14.5 percent prefer to go to Thailand, 14.2 percent prefer to go back to Kuala Lumpur and 13.7% prefer to visit the National Park at Kula Koh, Kelantan. National Park at Kuala Loh becomes the one of the famous destination for International tourists in Kelantan.

Table 2: International Tourists' Next Destination

	Destination	Percentage
In Malaysia		
Island/ Coastal	Perhentian Island	22.2
	Other Islands	3.6
National Park		13.7
Highland		3.8
Other States	Kuala Lumpur	14.2
	Others	13.5
Total		**71.0**
Asia Countries	Thailand	14.5
	Singapore	6.6

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	Others	2.7
Total		**23.8**
Back Home		**5.2**
Grand Total		**100.0**

The second objective of this study is to analyze the best way to attract and increase international tourist to Kelantan. By using the Pareto analysis on the variable, "tourists' comment", the result is shown in figure 6. Based on the Pareto chart, it clearly shows that the tourism sector in Kelantan can be improve if the authorities take part in locating and develop the natural asset that has the potential to become a beautiful tourism sites. Kelantan naturally has its own beautiful natural assets and potentially to be developed as a source of attraction. It has 894 271 hectares of wild forest and out of this area, 108 783 hectares was under the National Park and reservoir area [10]. Nevertheless, the previous surveys and studies found that most of the natural assets in Kelantan were not yet developed compared to other states in Malaysia. Although Kelantan has a lot of sources that can be exploited to become a good tourism attractions, but the growth of its tourism sector is still not satisfied. A rapid development should have been taken by responsible parties in order to optimize the output of this sector.

Helpful, friendly and respectful people are comments that can be taken into account as one of the major attraction. Obviously, Kelantan's community has their own culture value and ability to attract people to come to Kelantan. Kelantan is also known for its own Malay culture [10]. It is considered as the cradle of Malay culture where it has its own original culture and craft. It's popular with lots of traditional performance such as dikir barat, mak yong and wayang kulit. Dikir barat has been commercialized and was accepted as part of Malaysian culture. Kelantan is also popular with the traditional games and musical instruments such as top spinning *(gasing), keretuk, rebana ubi,* and kites. Besides that, it's also popular with the Malay handicrafts such as woven songket textile, batik and intricate silver and brass vessels. However, all these cultural assets cannot be used for the sake of Kelantan's tourism sector if the local residents do not practice a good courtesy of it.

Kelantan also famous with its free trade zone markets such as Rantau Panjang Trade Zone and Pengkalan Kubur Trade Zone. These shopping locations are famous with products from Thailand such as clothes, food, fruits, kitchen apparatus and other house. It is the best place for tourists to purchase large quantity of product with a great bargain. Nowadays, more shopping malls were built in Kelantan and one of the famous shopping centres is KB Mall. KB Mall is the biggest shopping complex in town, located in the middle of Kota Bharu Islamic City. The latest shopping arcade in Kelantan is Kota Bharu Trade Centre. It is located nearby Pasar Siti Khatijah and it is very strategic for visitors and tourist. Besides that, hypermarket such as, TESCO, Giant, Mydin and Pantai Timur shopping centre are also considered as an attraction especially for local tourist. The growths of new shopping malls in Kelantan can attract more outsiders to come and visit Kelantan. "Wakaf Che Yeh" is also one of the favorite shopping destinations in Kelantan. It's a huge 24-hour market, which is more happening during the night when the traders set up numerous stalls and sells unusual local foods, exotic tropical fruits, cheap clothes, second hand goods as well as fresh product. Normally it crammed with tourists bargaining for souvenirs while locals shops for groceries. The whole scenario repeats itself when the wholesalers arrive with their huge baskets of goods. All of these make Kelantan as a happy and enjoying place for tourist to visit. This

comment becomes the third factor that makes Kelantan one of the top choices for tourist destination.
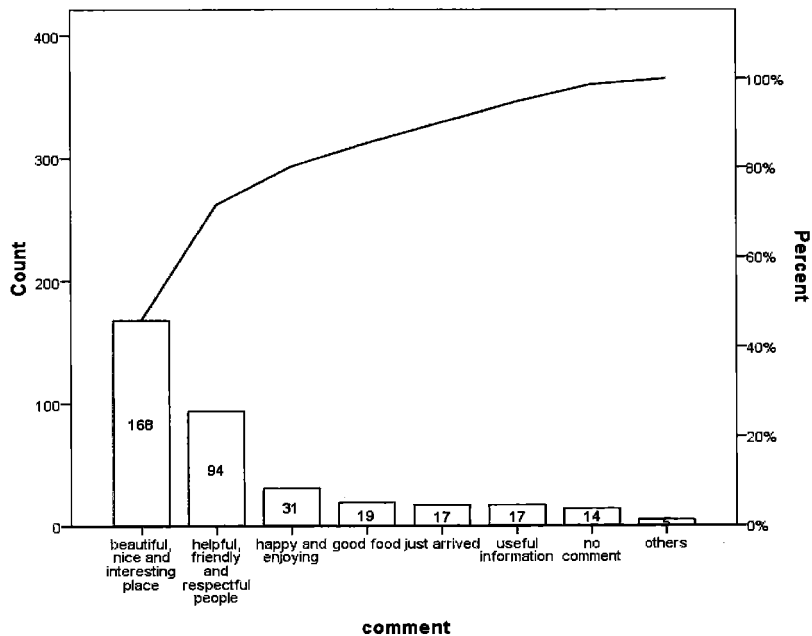

Figure 6:Pareto Chart based on Tourists' Comment.

By considering these three comments, decision maker in tourism sector could generate 80% of the benefit by doing the whole job. Or in terms of quality improvement, a large majority of problems (80%) are produced by a few key of causes (20%). This is also known as the vital few and the trivial too many. Through this finding, we can conclude that, the best way that to optimize the output of tourism sector in Kelantan is by doing a rapid development in three categories of attractions; (i) natural attractions, (ii) culture, craft and heritage attractions and (iii) shopping arcade attractions. Kelantan could be the best destination for ecotourism because there are lots of unique natural resources. It would be fascinating if we can develop and managed it properly, hence it will become a world class tourist attraction. Moreover, the Kelantan's culture, craft and heritage is also a unique attraction for the international tourist. Therefore, by combining with the friendly and helpful attitude of the Kelantanese people, of course this second category of attraction can be developed successfully.

There is an undeniably great synergy between tourism and shopping [13], [21]. Pleasure shopping can occur in everyday life of individuals; however, pleasure shopping while travelling may not fit the normal pattern of their ordinary life at home [3], [7], [14], [22], [21],

[11]. Therefore, to ensure that the visitors and tourists are happy and enjoy during their trip to Kelantan, shopping arcade should be upgrade and rebranding as an international shopping arcade. Promotion through attractive advertisements regarding the shopping arcade can also help to ensure it popularity and attraction. By using this kind of practice, Kelantan will be better known hence could attract more tourist and obvious increase economic gains. This will also creates job opportunities for the local people and increase foreign exchange.

Another objective of this study is to give an overview of the international tourist behaviour towards tourism sector in Kelantan. It can be done by using cross tabulation analysis and Chi Square test. Table 3 shows the contingency table from cross tabulation analysis between variable "tourists' countries of origin" and "tourists' next destination". Based on the results, 22% of the international tourist preferred Kelantan as a transit point to the Perhentian Islands in Terengganu, while another 14% intending to visit the Kuala Koh National Park. This clearly shows that Kuala Koh is the most preferable destination for international tourists in Kelantan and has the potential to become a world-class tourism attraction. If the authorities decided to develop Kuala Koh National Park, then it will solve 50% of the major problems in Kelantan tourism sector. As shown in the Pareto chart, Kuala Koh National Park is definitely a beautiful, nice, unique and interesting place to explore. It meets the tastes and the expectation of the international tourists that comes to Malaysia.

A cross tabulation analysis was also done between variable 'tourists' comment' with three other variables namely "tourists' countries of origin", "tourists' age" and "number of nights spent by tourist". The analysis yielded a chi square of 42.064, 72.230 and 61.473 for respective variables (Table 4). It means that there is a significant relationship between tourists' comment on Kelantan with the countries of their origin and age but not for the number of night spent by them in Kelantan. The level of significant is 0.05. Therefore we can conclude that, the main international tourist's behaviour in Kelantan is to enjoy and explore the natural beauty of tropical rain forest that full with uniqueness and distinctiveness of natural treasures. It is not impossible if one day Kelantan will become one of the famous places for eco-tourism in the world.

Table 3: Distribution of tourist by country and next destination

Next Destination	country					
	North America	Europe	Asia	Africa	Oceania	Total
perhentian Island	6	65	4	0	6	81
Other island in Malaysia	1	8	1	1	1	12
Kuala Koh National Park	5	39	0	1	5	50
Highland in Malaysia	0	13	0	0	1	14
Kuala Lumpur	1	36	8	0	7	52
Other states in Malaysia	2	39	4	0	4	49
Thailand	2	36	4	2	9	53
Singapore	0	22	0	0	2	24

Other Asia Countries	1	5	2	0	2	10
back Home	1	16	1	0	2	20
Total	19	279	24	4	39	365

Table 4: Chi-Square Tests on Tourists' Comment

Variable	Value	df	Asymp. Sig. (2-sided)
Countries of origin	42.064	28	.043
Age	72.230	42	.003
Number of night spent	61.473	49	0.109

Conclusion

Tourism industry in Kelantan is merging with a very high fluctuation on tourist arrivals. The fluctuations of the international tourist arrivals are influenced by many factors, but most studies are focusing on the economic factor. It has been the main objective for the Board of Kelantan's Tourism to make Kelantan as the first choice of destination for eco tourism, culture tourism and shopping tourism. One of the difficulties in this study is the deficiency of observation in empirical studies. The absence of Kelantan state structured theories have led to unexpected results in the elasticity values. This will give an inaccurate tourism demand forecasts, if we are relying 100 percent on the causal methods. The purpose of this article is to incorporate the prior process of the information-transmission that individually undergoes into the traditional tourism demand models. The model presented here, were based on the information-diffusion process. It has been tested on the two most important tourist nationalities of the Balearic Islands. An example of a mature destination proved that the evolution of a specific tourism demand cannot be explained by income and price variables alone. Although it produces statistical significant results, however the model presented here is still has some shortcomings. The estimates identified parameters confirms that the diffusion phenomenon exists, but the original parameters of the diffusion process are not a transferable estimators.

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REFERENCES

[1] Abd Rahim Md Nor, 1999. The end to Minibus Services in Kuala Lumpur: Reasons for Tarnished Image and Public Response towards Servive Attributes. *Asian Profile,* vol 27, No.2: 135 – 156.

[2] Anon, 2006. *World Tourism Organization.*

[3] Belk, R.W., 1988. Possessions and the extended self. *Journal of Consumer Research* 15 (2), 139–168.

[4] Bernama, 2006. Pelancong Asing Kurang, Ejen Pelancongan Tumpu Pakej Haji. *Berita Harian,* 27 Mac.

[5] Bhat M., 1996. Outcome of Rehabilitation Programme: Is there a differential response? *European Psychiatry,* vol 11, supplement 4, 281 – 295.

[6] Breslau N. et al, 1996. Daytime Sleepiness in Young Adults. *Biological Psychitary,* vol 39, No. 7: 620 – 629.

[7] Brown, G., 1992. *Tourism and symbolic consumption.* In: Johnson, P., Thomas, B. (Eds.), *Choice in Demand in Tourism.* Mansell, London, pp. 57–71

[8] Burger, C.J.S.C., Dohnal, M., Kathrada, M., & Law, R. (2001). A practitioners guide to time-series methods for tourism demand forecasting a case study of Durban, South Africa. *Tourism Management 22(4),* 403 – 409.

[9] Chokor B.A., 2003. Pattern of Representation of Countries in Cognitive Sketch Maps of the World with Special Reference to Africa. *Journal of Enviromental Psycology, vol* 23, pp. 427 – 437.

[10] Dahalan Taha dan Kamaruzaman Jusoff (pnyt). 2006. *Proceedings Seminar*

[11] Gordon, B., 1986. The souvenir: messenger of the extraordinary. *Journal of Popular Culture* 20 (3), 135–146.

[12] Iniyan S. et al 2001. A survey of Social Acceptance in Using Renewable Energy Source for New Millennium. *Renewable Energy,* vol 24, Nos. 3-4: 657 – 661.

[13] Jansen-Verbeke, M., 1994. *The synergy between shopping and tourism.* In: Theobald, W.F. (Ed.), *Global Tourism: The Next Decade.* Butterworth-Heinemann, Oxford, pp. 428 – 446.

[14] Kent, W.E., Shock, P.J., Snow, R.E., 1983. Shopping: tourism's unsung hero(ine). *Journal of Travel Research* 21 (4), 2–4.

[15] Ming Zhang, 2005. Exploring the Relationship between Urban, Form and Non-work Travel through Time Use Analysis. *Landscape and Urban Planning,* vol 173, Nos. 2&3: 244 – 261.

[16] Rodrigo A Ortega & Oscar A Santibanez, 2007. Determination of Management Zones in Corn (zea mays L.) based on Soil Fertility. *Computers and Electronics in Agriculture,* vol 58, pp. 49 – 59.

[17] Sheldon, P. J. (1993). Forecasting tourism: expenditure versus arrivals. *Journal of Travel Research, 32,* 13 – 20.

[18] Smith, S. L. J. (1995). *Tourism analysis: A handbook.* London: Longman

[19] Song, H. & Li, G., (2008). Tourism demand and forecasting – A review of recent research. *Tourism Management 29,* 203 -220.

[20] Summers P.M. et al, 2004. Tropical Forest Management and Silvi-cultural Practice by Small Farmers in the Brazilian Amazon: Recent Farm –Level Evidence from Randonia. *Forest Ecology and Management,* vol 19, Nos. 2-3: 161 -177.

[21] Timothy, D., Butler, R., 1995. Cross-border shopping: a North American perspective. *Annalsof Tourism Research* 22 (1), 16–34.

[22] Timothy, D.J., 2005. Shopping Tourism, Retailing and Leisure. Channel View, Clevedon, UK.