

Effect of Tourism on Demand of Hotel Room Type

Noor Amni Haji Abd Razak*, Mohd Nadzri Jaafar

Department of Real Estate Faculty of Geoinformation And Real Estate, Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor, Malaysia

*Corresponding author: nooramni@gmail.com

Abstract

Tourism industry is one of the major contributors to national economy. Tourism industry is closely related to the development of the hotel industry. Improvement of subsectors accommodation are often related with the increase of tourists in Malaysia. Revenue Management has become an important tool for hotel management to effectively control customers demand via its optimal room rates suggestions. In a decision support system, effective decision makings require effective inputs. The goal of this paper is to analyze the effect of tourism on demand of hotel room type and its tariff. Tourist behaviour was observed to understand demand of hotel room type because they are contributor to hotel industry. There are two methods use to analyze criteria for choosing hotel that are likert scalling analysis and multi dimensional scalling analysis. However this research will further on forecast hotel room tariff for the future use that can take advantage in predicting hotel revenue.

Keywords: Revenue management; hotel room demand; hotel room tariff

© 2014 Penerbit UTM Press. All rights reserved

1.0 INTRODUCTION

The development of the tourism industry is closely related to the development of the hotel industry. Many studies have been carried out in relation to this development. Among them, the vision of hospitality and tourism industry in the 21st century (Holjevac, 2003), the response capacity of international tourist hotel development in Taiwan (Chen, 2011) and changes in the structure of the hotel industry based tourism in China (Gu, Ryan & Yu, 2012).

Tourism is a very important industry in the world in the economic development of a country (Holjevac, 2003; Chen 2011). Similarly, the importance of tourism to Switzerland which is one of the most important economic sectors (Kytzia, 2011). According to Williams and Shaw (2009), tourism and recreation is a dynamic land-use complex in the UK. Great developments in tourism and recreation land use has led to deformation and distribution and relationship to other land uses. The hotel is an important requirement for travelers (Holjevac, 2003). The hotel provides well-equipped accommodation with various aspects to gain profit (Wu & Chen, 2012). Kotler and Armstrong (1993) in Israeli (2002) describe the factors that influence the value of rental property include internal and external factors. Internal factors such as the purpose of this market, strategy and business objectives and operational factors. While external factors as market supply and demand, competition, and environmental factors.

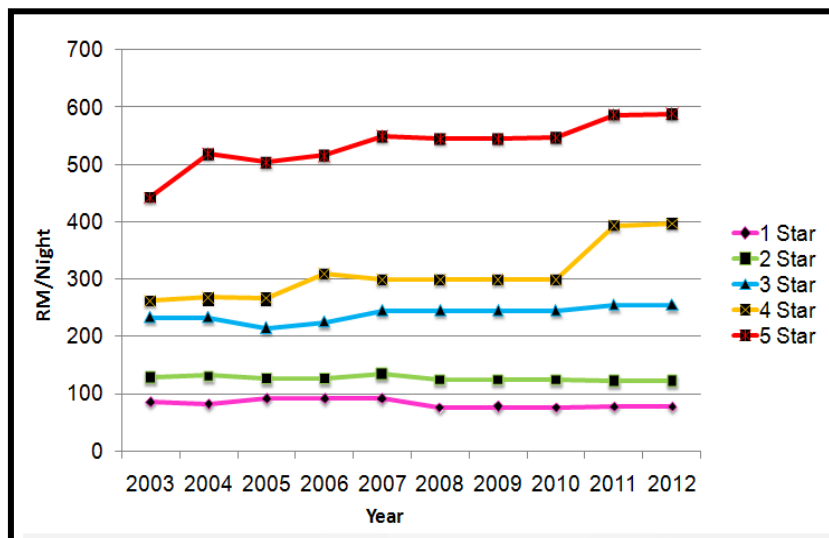
Among one of the reasons a country to develop the tourism industry is that it is a source of economic growth by utilizing the transport, accommodation and other sectors (Petrevska & Kjosev, 2012). Improvement of subsectors accommodation are often related with the increase of tourists in Malaysia (Economic Report 2012/2013). According to the Ministry of Tourism and Culture, Malaysia's tourism industry has gained an increase of 8.1 percent to RM65.44 billion compared with RM60.56 results billion tourist receipts in 2012. Meanwhile, tourist arrivals increased by 2.7 percent to 25.7 million compared to 25 million arrivals arrival in 2012. Table 1.1 shows the results of Malaysia's tourist arrivals and tourist receipts revenue from 1998 to 2013.

The number of hotels offered are different in type, star rating, and size and others. These differences will determine the rental rate for a room offered by the hotel management. Figure 1.1 shows the hotel room tariff based on the star rating at George Town, Penang.

Table 1.1 Tourist arrivals and receipts to Malaysia

YEAR	ARRIVALS	RECEIPT (RM)
2013	25.72 Million	65.44 Billion
2012	25.03 Million	60.6 Billion
2011	24.71 Million	58.3 Billion
2010	24.58 Million	56.5 Billion
2009	23.65 Million	53.4 Billion
YEAR	ARRIVALS	RECEIPT (RM)
2008	22.05 Million	49.6 Billion
2007	20.97 Million	46.1 Billion
2006	17.55 Million	36.3 Billion
2005	16.43 Million	32.0 Billion
2004	15.70 Million	229.7 Billion
2003	10.58 Million	21.3 Billion
2002	13.29 Million	25.8 Billion
2001	12.78 Million	24.2 Billion
2000	10.22 Million	17.3 Billion
1999	7.93 Million	12.3 Billion
1998	5.56 Million	8.6 Billion

Source: Tourism Malaysia Corporate (2014)



Source: Department of Valuation and Property Services (1997-2008)

Figure 1.1 Hotel room tariff based on star rating at George Town, Penang

2.0 LITERATURE REVIEW

According to the World Tourism Organization (2008) in Dayang & *et al.* (2012), tourism is all of the activities involved during the trip comfortable. Tourist is a person who migrated outside the home at least overnight for one night (Anand, 2007). Moreover, tourism is defined as an idea, theory or ideology to become a tourist and behavior they do a translation of ideas into practice (Leiper, 1990).

Rosentraub & Joo (2009) use a system of tourist attractions mentioned in Leiper model to support their research related on investment in tourism and economic development.

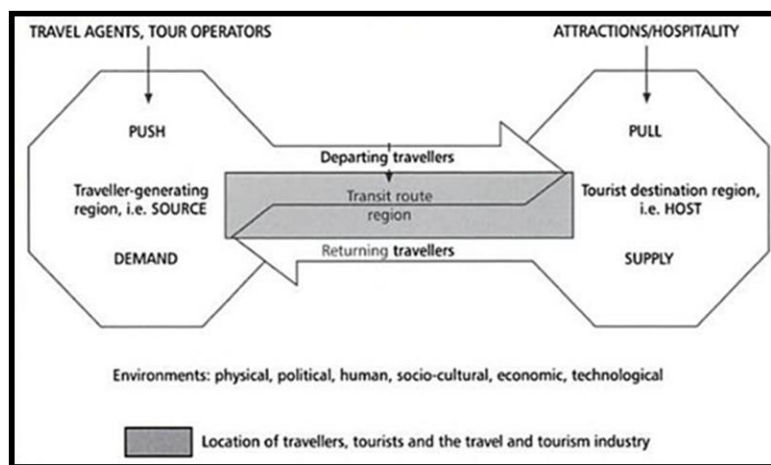
Leiper is a theoretical model used in tourism. It was introduced in 1979 and used in 1990. Model consists of five main elements are interlinked. The five elements are the human element (tourists), industrial elements (tourism) and three related elements of geography (Leiper, 1979). Table 2.1 describes in more detail the relevant elements in Leiper's model.

Table 2.1 Element in Leiper’s Model

ELEMENT	EXPLANATION
Tourist	Tourist is the actor in this theory. Tourism is travel experiences and entertainment which is very important in their lives.
Tourism Industry	It is the businesses and organizations that help in promoting tourism revenue. For example, in the transportation, accommodation, and so on.
ELEMENT	EXPLANATION
Geography	Categorized into three: 1) The area of origin of tourists 2) The tourist destination 3) The stops

Source: Warn (2001)

Leiper model is an attempt to look at tourism as a form of operating system has a structure consisting of several components that interact with each other (Mason, 2003). By using this model, the existence of a fundamental system of travel as shown in Figure 2.1 for a more detailed understanding of the relevant tourism (Hall & Page, 2010). This model can be used as a framework in the various elements of the study (Leiper, 1990).



Source: Leiper (1990)

Figure 2.1 Basic system of tourism

Hotel is one of the types of accommodations that are often associated with tourism such as in the study of Chou *et al.* (2008) on the model selection of the location for the International Tourist Hotels and Sharpley (2000) examined the impact of the accommodation sector (hotels) on the development of tourism. Furthermore, demand for hotel industry is required by a traveler than a tourist attraction provided (Chen & Soo, 2007). In fact, the hotel industry can be used as indicators of the development of tourism in the country.

3.0 METHODOLOGY

In order to get the information for our research purpose, we gathered information from our respondents through questionnaires. So for this purpose, questionnaires are distributed among tourist at George Town, Penang. 100 tourists are selected to get responses for analysis. Questionnaires contain two sections:

- General Background
- Tourism And Hotel Industry

General background section is about demographic where it is comprises of age, gender, origin, education, employment status and monthly income of the respondents. Tourism and hotel industry section comprises of travel to Penang, hotel industry, expenditure and priority level on selection of hotel. In this paper, I focused on priority level on selection of hotel. In this section, there are nine subsection comprises nine criteria on selection of hotel such tariff/price, customer services, facility, accessibility, location, safety, popularity, concept and hotel room. However, I just pick up three important criteria to discussed detail in this paper such location, facility and accessibility. There are four items for location criteria, 23 items for facility and eight items for accessibility. Five point likert scale is used to measure these responses regarding to their priority level on selection hotel where one is not significant while five is very significant. Data is collected from respondent with random sampling techniques. The target population of this research was tourist arrival at George Town, Penang where stay at hotel, motel or guest house in that area. A survey instrument in the form of close ended questionnaire was developed for the purpose of collection of data. The respondents were 51 percent male and 49percent female where 73 percent international tourists and 27 percent domestic tourists.

4.0 ANALYSIS AND DISCUSSION

There are eight criteria that I already prepared in my survey question to 100 respondents among tourist arrival in Penang. The result from this survey were analyze using likert scalling scale (Table 4.1) and multi dimensional scalling (Figure 4.1) find that four criteria that are very significant before choosing hotel are price, location, facilities and accessibility. In likert scalling for the criteria that are very significant rank as one while not significant is eight. Very significant criteria got mean 2.06 until 4.18.

Table 4.1 Likert scalling analysis

CRITERIA	POSITION	SUM	MEAN	PRIORITY INDEX
Price	1	206	2.06	Very Significant
Location	2	220	2.20	
Facilities	3	331	3.31	
Accessibility	4	418	4.18	
Food	5	432	4.32	Not Significant
Popularity	6	500	5.00	
Design	7	581	5.81	
Other	8	692	6.92	

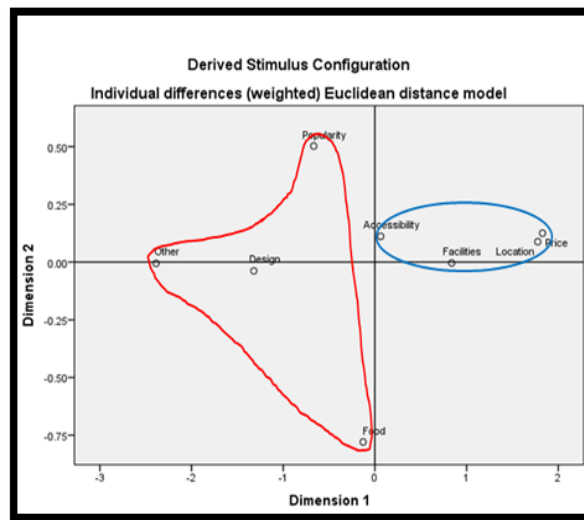


Figure 4.1 Multi dimensional scalling analysis

From the result of criteria, some items that determine detail about each criteria were examine and analyze. There are 4 items for location aspect were analyze using likert scalling analysis to know the mean of each criteria such Table 4.2. Each item were rank from one not significant to five very significant. From this analysis, item city centre got first position with mean 3.75 and 75 percent. Figure 4.2 showed the result from the multi dimensional scalling analysis. The graph represent the highest probability of item. The blue circle represent very significant criteria while red circle is not significant criteria. We can see that the different of position between this two method. This happened because the case where majority of them choose peaceful location as their very significant while a few of respondent answer not significant. So that the total of mean will become quite low. That is why in multi dimensionoanal scalling peaceful location got first place in priority index because its represent majority answer.

Table 4.2 Likert scalling analysis of location

ITEM	POSITION	SUM	MEAN	PERCENT	PRIORITY INDEX
Located in the city centre	1	375	3.75	75.00	Very Significant
Located in a peaceful location – away from noise and air pollution	2	346	3.46	69.20	Significant
Easy to find the hotel with the help of billboard– strategic / marketing aspects are good	3	345	3.45	69.00	Significant
Located in sub-urban area	4	279	2.79	55.80	Not Significant

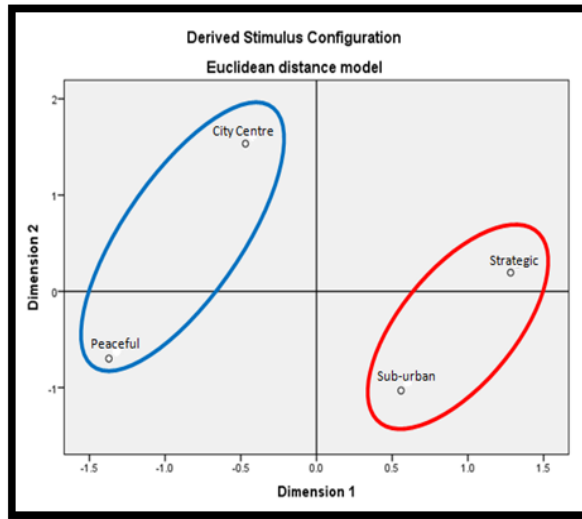


Figure 4.2 Multi dimensional scaling analysis of location

The same analysis technique were used to identify the priority of facilities item. There are 23 items that can be used to categorize star rating as mention in Table 4.3. The multi dimensional scaling result as Figure 4.3 showed eight criteria that are very significant in facilities aspect. They are wifi availability, laundry service, credit/debit card acceptance, lobby, water cooler, restaurant, airport shuttle and also transport tenancy.

Table 4.3 Likert scaling analysis of facility

ITEM	POSITION	SUM	MEAN	PERCENT	PRIORITY INDEX
Internet / Wi-Fi	1	442	4.42	88.40	Very Significant
Cards accepted (credit / debit card) for payment	2	338	3.38	67.60	Significant
Laundry services	3	326	3.26	65.20	Average Significant
Facility waiting area in lobby	4	304	3.04	60.80	Average Significant
Water cooler machine provided	5	297	2.97	59.40	Average Significant
Cafeteria or restaurant in hotel	6	284	2.84	56.80	Average Significant
Transport tenancy offered by hotel like rented car, motorcycle and so on	7	269	2.69	53.80	Less Significant
Airport shuttle	8	265	2.65	53.00	Less Significant
Parking facilities	9	255	2.55	51.00	Less Significant
Vending machine provided	10	248	2.48	49.60	Less Significant
Swimming pool in hotel	11	241	2.41	48.20	Less Significant
Facilities for disabled guests	12	233	2.33	46.60	Less Significant
Gymnasium and recreation centre in hotel	13	228	2.28	45.60	Less Significant
Spa and health centre in hotel	14	215	2.15	43.00	Not Significant
Smoking area	15	207	2.07	41.40	Not Significant
Mosque	16	200	2.00	40.00	Not Significant
Souvenirs shop available	17	198	1.98	39.60	Not Significant
Photostat machine facilities	18	191	1.91	38.20	Not Significant
Pet friendly	19	188	1.88	37.60	Not Significant
Conference space, meeting room and so on	20	184	1.84	36.80	Not Significant
Children playground	21	182	1.82	36.40	Not Significant
Karaoke room	22	180	1.8000	36.00	Not Significant
Ballroom	23	175	1.7500	35.00	Not Significant

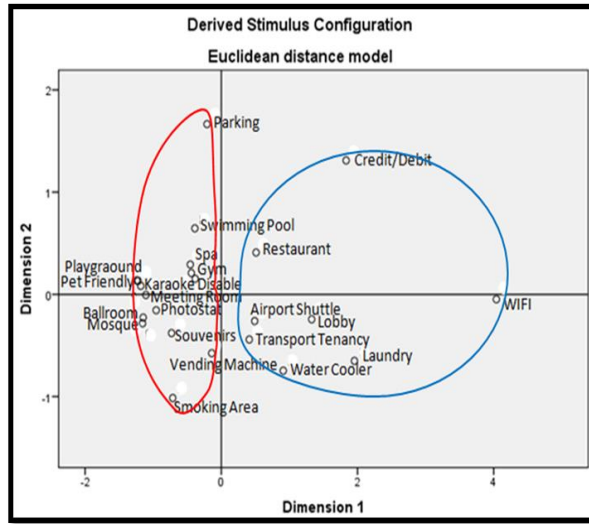


Figure 4.3 Multi dimensional scaling analysis of facility

While in accessibility aspect, there are eight items where public transport have the highest percent with 80.2 percent such Table 4.4. The main significant item for choosing hotel is its easy to get public transport, close to restaurant, close to bank/money changer and also near to shopping malls as showed in Figure 4.4.

Table 4.4 Likert scaling analysis of accessibility

ITEM	POSITION	SUM	MEAN	PERCENT	PRIORITY INDEX
Easy to get public transport	1	401	4.01	80.20	Very Significant
Close to restaurants	2	400	4.00	80.00	Very Significant
Close to banks / money changers	3	336	3.36	67.20	Significant
Close to shopping malls	4	322	3.22	64.40	Average Significant
Walkway provided	5	311	3.11	62.20	Average Significant
Close to health centres / hospitals / clinics	6	275	2.75	55.00	Less Significant
Close to sales centre for souvenir	7	262	2.62	52.40	Less Significant
Close to government offices	8	206	2.06	41.20	Not Significant

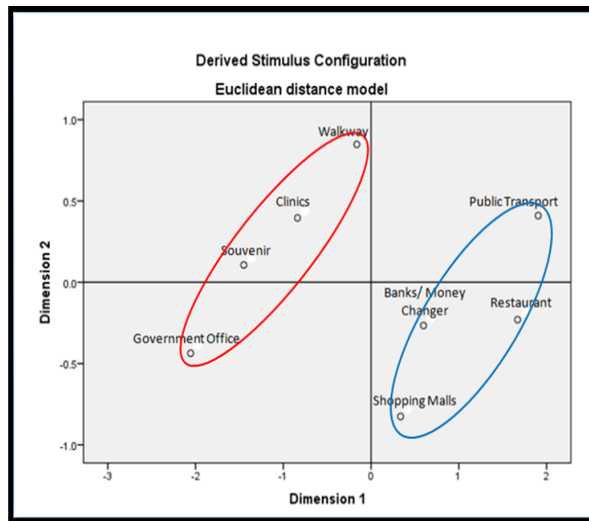


Figure 4.4 Multi dimensional scaling analysis of accessibility

Figure 4.5 summarize this three important criteria with their items will result to the category of hotel regarding to the guideline for star rating prepared by Ministry Of Housing And Local Government (2008). The result showed that tourist arrival in George Town really need the accommodation with star rating less than two star. This is because majority of them are backpackers tourist.

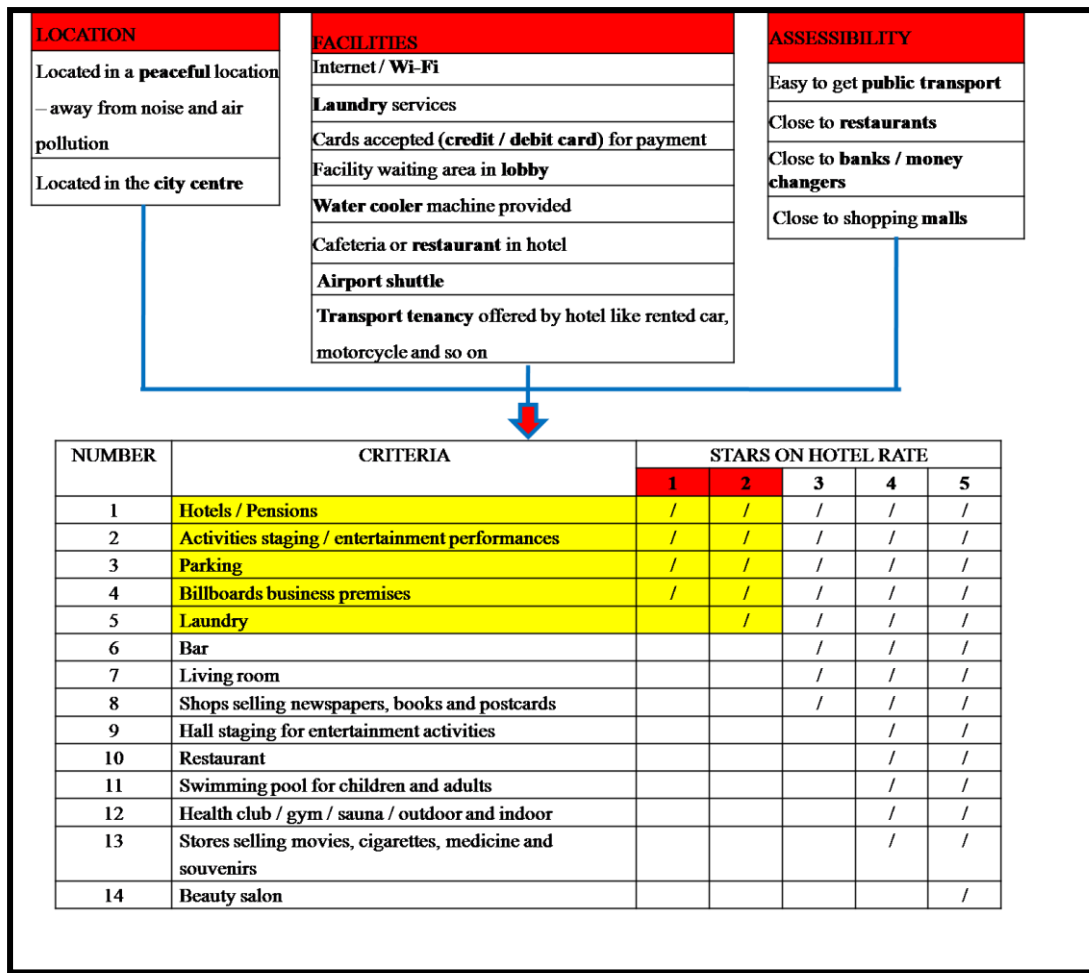


Figure 4.5 Result of research

5.0 PRACTICAL IMPLICATIONS

This study provide some course of action to understand demand of hotel room criteria. The criteria identified will monitor demand on rating of hotel. The results of this research will provide an analysis of the forecasting hotel room tariff regarding to the star rate. This will ensure that hotelier, developer, government and other agencies can make rational decision in development of hotel with good practice in revenue management.

6.0 LIMITATIONS AND FUTURE DIRECTIONS

Majority of respondent are backpackers tourist. Therefore, a further research should be examined in other types of tourist for more concrete results. Further research should also effort to achieve a larger population sample size. Future research should also effort to achieve a larger population sample size.

References

Adriana Victoria Garibaldi de Hilal, U. W. (2009). Organizational Culture and Performance: A Brazilian Case. *Management Research News*, 99–119.

Alas, R., Vadi, M., & Sun, W. (2009). Impact Of Work-Related Values Upon Attitudes Toward Changes And Organizational Learning In Chinese Organizations. *Chinese Management Studies*, 117–129.

Anand, S.K. (2007). *Tourism Industry Today*. Sumit Enterprises. India.

Chen, C. & Soo, K. T. (2007). Cost Structure and Productivity Growth of The Taiwanese International Tourist Hotels. *Journal of Tourism Management*, 28, 1400–1407.

Chen, M., H. (2011). The Response of Hotel Performance to International Tourism Development and Crisis Events. *International Journal of Hospitality Management*, 30, 200–212.

Chou, T., Hsu, C., Chen, M., (2008). A Fuzzy Multi-criteria Decision Model for International Tourist Hotels Location Selection. *International Journal of Hospitality Management*, 27(2), 293–301.

Dayang Hummida Abang Abdul Rahman, A.M Dayang-Affizzah & Salbiah Edman (2012). *Tourism and Hotels in Sarawak: Economic Performance*. International Congress on Interdisciplinary Business and Social Science 2012. 65, 1020–1026.

Department of Valuation and Property Services. (1997-2008). Property Market Report. Ministry of Finance Malaysia.

Gu, H., Ryan, C. & Yu, L. (2012). The Changing Structure of The Chinese Hotel Industry: 1980-2012. *International Journal of Hospitality Management*, 4, 56–63.

- Hall, M & Page, S. (2010). The Contribution of Neil Leiper to Tourism Studies. *Current Issues in Tourism*, 13(4), 301.
- Holjevac, I., A. (2003). A Vision of Tourism and the Hotel Industry In The 21st Century. *International Journal of Hospitality Management*, 22, 129–134.
- Israeli, A., A. (2002). Star Rating and Corporate Affiliation: Their Influence on Room Price and Performance of Hotels In Israel. *International Journal of Hospitality Management*, 21, 405–424.
- Kytzia, S. (2011). How Can Tourism Use Land More Efficiently? A Model-Based Approach to Land-Use Efficiency for Tourist Destinations. *Journal of Tourism Management*, 32, 629–640.
- Leiper, N. (1979). The Framework of Tourism: Towards a Definition of Tourism, Tourist, and The Tourist Industry. *Annals of Tourism Research*, 6(4), 390–407.
- Mason, P. (2003). *Tourism Impacts, Planning and Management*. Butterworth-Heinemann. 11.
- Petrevska, B. & Kjosev, S. (2012). *Planning and Estimating Tourism Demand- The Case of Macedonia*. International Conference “BITCO 2012”. Belgrade, Serbia. 129–142.
- Portal of Ministry of Housing And Local Government. (2008).
- Portal of Tourism Malaysia Corporate. (2014).
- Rosentraub, M.S. & Joo, M. (2009). Tourism And Economic Development: Which Investments Produce Gains For Regions? *Journal of Tourism Management*, 30, 761.
- Sharpley, R. (2000). The Influence of the Accommodation Sector on Tourism development: Lesson From Cyprus. *International Journal of Hospitality Management*, 19(3), 275–293.
- Warn, S. (2001). *Recreation and Tourism: A Changing Industry*. Nelson Thornes. United Kingdom. 5–7.
- Wu, S., I. & Chen, J., H. (2012). Comparison Between Hotels And Motels Using CRM Effect Model- An Empirical Study In Taiwan. *International Journal of Hospitality Management*, 31, 1254–1263.