

Chapter 5: Some Ways of Increasing Inflow and Decreasing Outflow of Travelers

This chapter will examine possible ways to increase inflows and decrease outflow of travelers. (Which also means increasing local tourism and education facilities). The tools involved are basically the demand and supply analysis, elasticity, receipts and expenditure-ratio analysis and multiplier effect.

It is hoped that such a study would find possible ways to assist the services account through the travel account. As mentioned in the second chapter, the travel account consists of 4 detailed components: education, tourism, business and pilgrimage. In order to achieve that, we have to first understand travelers behaviour.

To assist the services account through the travel account we will have to

1. Increase inflows of travelers
2. Decrease outflows of travelers

5.1 The Demand and Supply Analysis

The travel industry in Malaysia exists because there is a demand and supply. We know that Says theory hold: that supply creates demand. The existence of the travel industry rely much on the factors that enable the industry to operate which means the **supply factors** of the travel industry. With the existence of these supplies, then demands are generated. The demand and supply analysis focused on the evaluation of the relationship in graphs form of the following factors in the travel industry. The important supply factor a country would need to generate demand for the travel industry include accommodation, places of attraction, business and conventions, education as well as regional pilgrimage stop over facilities

5.1.1 Accommodation via Average Occupancy Rate

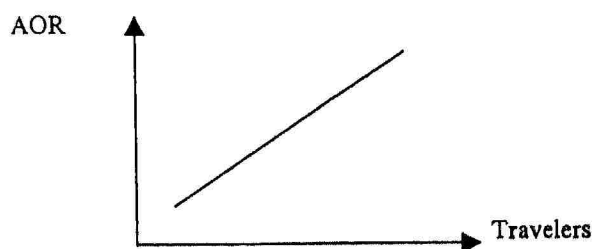


Diagram 1 : Relationship between AOR and Number of Travelers

Demand for accommodation can be measured through the Average Occupancy Rate (AOR). If the number of travelers specifically for business, convention as

well as tourism trips increases, AOR increases as well. This will in turn increase travel receipts through the travel account.

5.1.2 Places of Attraction

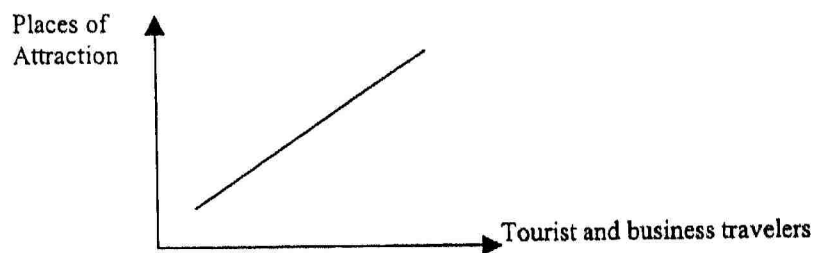


Diagram 2: Relationship between Places of Attraction and Number of Tourists & Business Travelers Inflow

Places, which are more popular, have the tendency to attract more tourists. This means arrivals of night guest in a place would be positively related to the degree of popularity in the place.

5.1.3 Business and Conventions

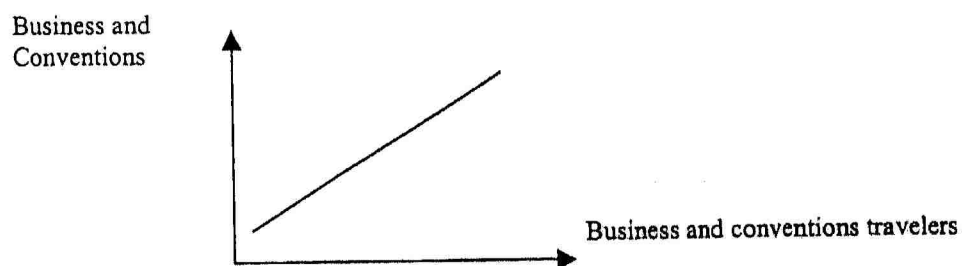


Diagram 3: Relationship between Number of Business/Convention Tourist Inflow

Increasing business activities and conventions hosted by Malaysia would also increase the inflow of business and convention travelers. Therefore again both these factors are positively related.

5.1.4 Education Facilities

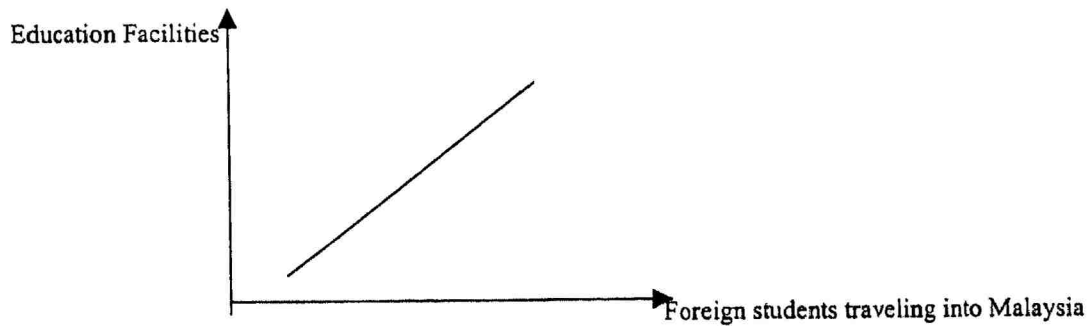


Diagram 4: Relationship between Education Facilities and Foreign Students Traveling into Malaysia

The more a country is equipped with adequate education facilities of international standards and high quality, inflow of foreign students will increase.

5.1.5 International Pilgrimage Services

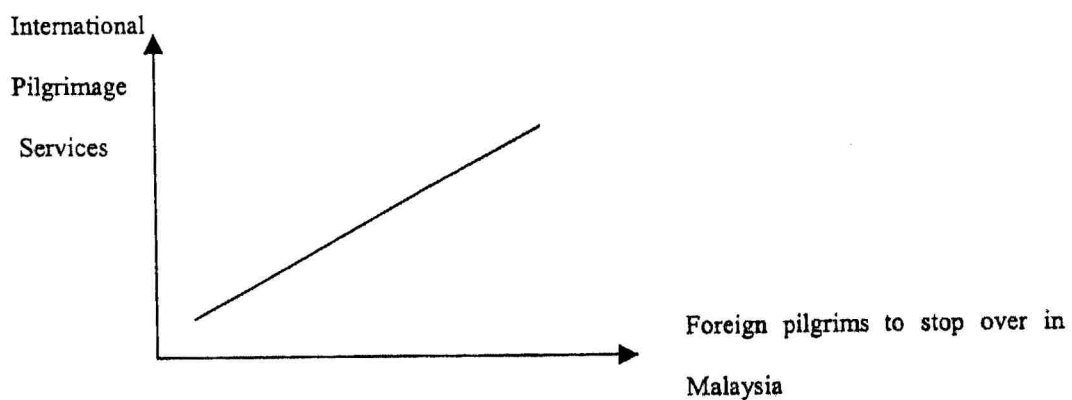


Diagram 5: Relationship between International Pilgrimage Services Numbers of Foreign Pilgrims to stop over in Malaysia

The more intense LUTH promotes its services to foreign countries, the higher the number of foreign pilgrims will use its services and thus increase travelers inflows

to the country. This will indirectly generate receipts through expenses made through indirect taxes

5.2 Elasticity

Basically elasticity can be divided into 3 different categories- price, income and cross price. We will discuss both the price and income elasticity to evaluate certain travelers behaviour.

5.2.1 Income Elasticity

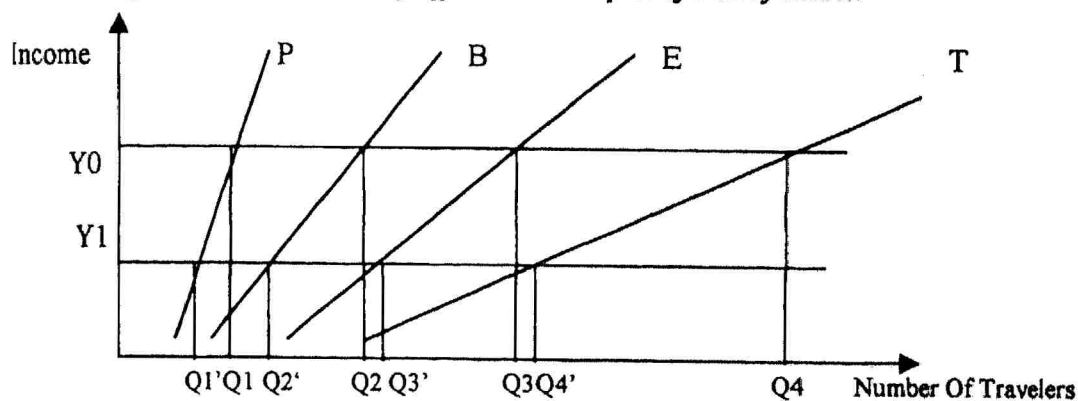
As discussed in chapter 3, there are many factors, which contribute to the inflow and outflow of travelers in the country. One of these factors is the purpose of the travel. Chart 1 illustrated the different purposes of traveling to a country such as business, convention, visit friends and relatives, main vacation and so on. Taking into account the purpose of the travel, the policy maker can assess the demand strength of each purpose. The policy maker can then allocate resources appropriately to attract each segment.

Using income elasticity, the policy maker can identify which market segment is less elastic to changes in income and which is elastic to changes in income. The income elasticity of demand for travel by travelers for each purpose would be calculated as follow

$$E_{yt} = \frac{\% \Delta \text{ in travel for X demand}}{\% \Delta \text{ in disposable income}}$$

Note: X represents the purpose of traveling such as education, tourism, business or pilgrimage
 Δ represents the term change

Diagram 6: Income Elasticity Effect on the Purpose of Visit by Tourist



Note: P=Pilgrimage, B=Business, E=Education, T=Tourism

Diagram 6 above illustrates the income elasticity effect on the purpose of visit by travelers. According to Adrian Bull, a survey conducted showed that the degree of elasticity for each purpose of visit can be viewed as follows. P refers to travelers traveling for pilgrimage purposes, B for business purposes, E for education purposes and T for Tourism purposes.

At initial income of Y0, travelers' traveling for pilgrimage activities would demand to visit a country as much as Q1. When income decrease to Y1, the demand to visit the country drops to Q1'. The change of quantity demanded as much as Q1Q1' for pilgrimage travelers is the least elastic compared to other purposes. As supported

by the data in Chapter 3, regardless how much the cost of performing the haj fluctuates, the quota allocated each year for the number of pilgrims allowed to visit the Holy Land will still be fulfilled.

For business purposes, at initial income of Y_0 , the demand for travelers to visit a country on business purposes would be Q_2 . When income decrease to Y_1 , demand decreases to Q_2' . The change in demand as a result of the change in income as much as Q_2Q_2' is larger than the change in pilgrimage travelers' demand. Therefore, traveling for business purposes is more elastic than for pilgrimage purposes.

For travelers traveling for education purposes, at initial income of Y_0 , the demand to visit a country is Q_3 . When income decreases to Y_1 , Q_3 decreases to Q_3' . In short, students may find other alternatives such as to study locally should the costs of studying abroad be too expensive as a result of decline in income. Therefore traveling for education purposes is adjustable.

Lastly, for travelers traveling for tourism purposes, the schedule and timing is rather flexible. If one cannot afford a holiday at the present, his intention can be delayed until the situation permits. At initial income of Y_0 , the demand for traveling for tourism purposes is Q_4 . When income decreases to Y_1 , demand decrease to Q_4' . The change in demand as much as Q_4Q_4' is the largest among

the other three purposes. Therefore traveling for tourism purposes is the most elastic factor.

How far can this then be applicable to Malaysia? According to previous explanation on pilgrimage activities in Malaysia, demand from Muslims to perform pilgrimage exceeds the quota as ascertain by the government of Arab.

The scheme of savings introduced by LUTH enables future pilgrims to save and make necessary preparation to perform the haj when their turn comes. Income fluctuation does not affect the number of pilgrims going abroad as each year the quotas are fulfilled and expenses are taken care of by previous savings. In short, the demand for pilgrimage traveling is the least elastic of all.

This is followed by traveling for business and convention purposes. This is because business and conventions are fixed dated. There is less possibility of re-scheduling of such events.

As for education, income is quite an important factor to determine which place of study is affordable. This is true in Malaysia as witnessed during the 1997 economic crisis when many students returned to Malaysia to undertake their higher education in the country while many potential university students were forced by circumstances to enter local institutions. Nevertheless, some would resort to education loan as well even if their current savings do not allow them to

go abroad. Such characteristics would place the education more elastic than business and convention purpose but less elastic than traveling for tourism purposes.

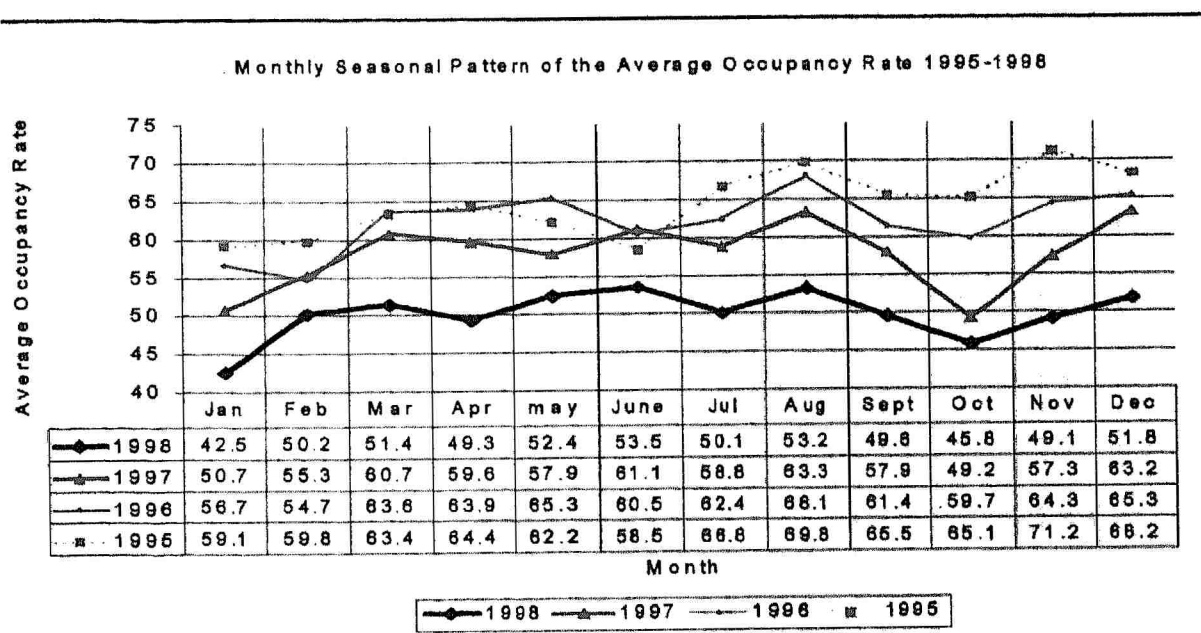
Income elasticity for tourism ranked the most elastic. This is so because if there is no substantial amount to spend for that purpose, the intention can be delayed.

In terms of contribution to Malaysia's travel account, it can thus be said that travelers coming in for business and convention events would be the most reliable. Pilgrimage activities are not considered here because it generates outflow of travelers more than inflow of stop over pilgrims. The education industry on the other hand has yet to contribute to a significant inflow. The number of Malaysian students going out for further studies currently far outnumber the incoming foreign students. (This assumption is based on the data obtained in Chapter 3 which reflect the number of government sponsored students going abroad and foreign students studying in local universities).

Incoming tourists on the other hand follow a seasonal pattern as depicted in Graph 13. Graph 13 below presents the monthly seasonal pattern of the tourism industry from 1995-1997. From the graph, the AOR is seen to increase during the month of July to August and October to December, the period July to August covers the summer and the October to December period falls on the local school holidays. Besides that, most people accumulate their annual leave to take a long holiday at the end of the year while some foreigners may prefer to visit warmer

places in their winter months. Hotel operators as well as event organisers should seize this opportunity to organise functions to attract more travelers into the country.

Graph 13: Seasonal Pattern of the Tourism Industry.



(Source: Adapted From Tourism Statistical Report 1995-1998)

5.2.11 Suggestions for Action

1. Promotional packages for business and conventions should be targeted all year round.
2. Increased effort should be made to bid for hosting of more international events especially sporting events as we have all the international sporting facilities. Demand for travel by those involved in events such as these are less elastic and inflows of participants are more predictable.

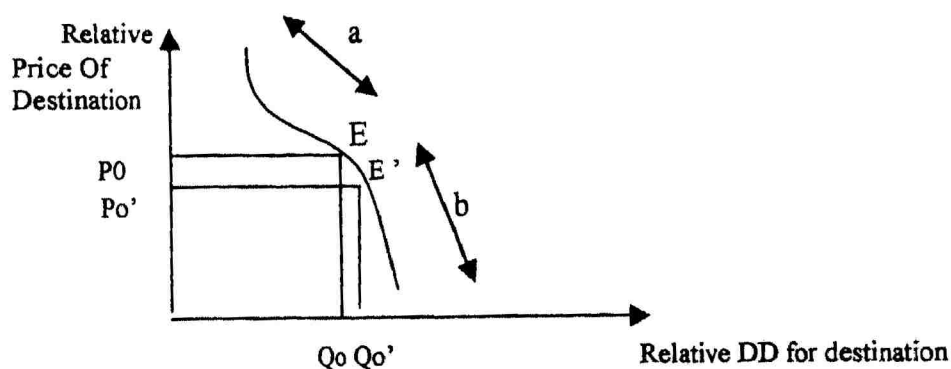
3. The tourists industry should identify peak seasons for foreign and local holiday promotional packages and increase the promotion allocation for holiday packages. Co-ordinate programs above with Tourism Malaysia branches in top major markets to promote business and convention incentives packages year round and holiday packages during peak season.
4. Efforts should be made to increase educational activity trips for students during local holidays to decrease the outflow of holiday goers abroad. Other than that, the Ministry of Education and the private tertiary educational institutions should dispatch its staff to neighbouring and foreign countries to encourage more students to study in Malaysia

5.2.2 Price Elasticity

Price elasticity of demand for tourism measures the percentage of changes in quantity demanded for traveling in response to a percentage change in the cost for a particular purpose of traveling for the tourism industry. In this case although the packages are complementary in terms of characteristics offered, they may well be substitutes in terms of price effects if they are competitive for the same slice of tourists spending. This is supported by Adrian Bull's writings on tourism package similarities in a certain region. Bulls model is also applicable to ASEAN countries. For example, countries in ASEAN offers quite similar packages in terms of aspects like climate, social, cultural as well as currency strength in comparison to the West. Foreign tourists from abroad would find it cheaper to tour ASEAN countries. In general, the greater the degree of competition and hence substitutability among these countries' tourism packages, the higher the price elasticity as price-conscious tourists would search for cheaper alternatives. In short Malaysia has to always review its tour packages to be as competitive (assuming other factors are constant among these countries e.g. no political and economic crisis and so on). With reference to the above explanation, we assume that if Malaysian tour packages are set at higher prices, visitors may choose to visit other neighbouring countries. The above explanation is illustrated in the diagram below. At initial price P_0 , quantity demanded for Malaysian tour packages is Q_0 , Observe that the curve above P_0 (a) is less steeper in a curvy line

compared to below P_0 (b). An increase in prices would decrease quantity demanded much more than a decrease in price. In short, should there be a price increase in tourism product prices such as tour packages in this case, tourists would source for cheaper packages elsewhere with similar characteristics (substitute). However if there were a decrease in price, the quantity demanded would increase just a little. This is because assuming all visitors have booked their tour packages elsewhere too, and prices in their tour packages remains, not many will take the hassle to switch to Malaysian tour packages because of the similar characteristics offered in both packages.

Diagram 7: Price Elasticity on Tourism Packages among neighbouring Countries



5.2.31 Suggestions for Action

1. Encourage market competition price setting among tour agencies.
This will enable suppliers of the tourism industry such as tour agencies, hotel operators as well as event organiser to set appropriate prices to meet the market demand.

2. Tourism Malaysia should have all tour operating agencies to register with it in order to monitor their activities and packages offered
3. Tourism Malaysia should observe tour packages of the neighbouring countries as well as the responses to them.
4. Tourism Malaysia should observe the similarity of the packages offered in the South East Asian region to enable it to make suggestions to the local tour operating companies to improve the packages currently offered and to make them more attractive and different.

5.2.3 Supply and Demand Functions for Accommodation and Price Elasticity of Demand for Such

In 1998, travelers expenditure for accommodation amounted to 34.67 % of their total spending, the largest component followed by shopping.³⁹ Extracting the details of the rooms supply, demand (through rooms sold) and price for accommodation from Tables 13 and 14 in chapter 3, we are able to calculate demand and supply functions for such as well as the price elasticity of demanded on the accommodation.

Table 16: Supply, Demand and Price of Hotel Accommodation for 1996 and 1997

Year	Supply	Demand	Price
1996	85514	53275	88
1997	98440	57095	97

(Source: Modified and adapted from table 13 & 14)

Demand (DD) Function: $Q_d = a - bP$

Supply (SS) Function: $Q_s = a + bP$

Substituting Quantity demanded, quantity supplied and price of accommodation, we will arrive at

$$DD = 53275 = a - bP \rightarrow 1$$

$$SS = 85514 = a + bP \rightarrow 2$$

Using simultaneous equation to solve a & b, we will obtain

$$-32239 = -176b$$

$$b = 183.18 \rightarrow 3$$

Substituting 3 into 1, we will then solve a

$$a = 42788.06$$

Therefore,

$$Q_d = 42788.06 - 183.18P \text{ (downward sloping)}$$

$$Q_s = 42788.06 + 183.18P \text{ (upward sloping)}$$

From the data above we are also able to determine the price elasticity of hotel accommodation. Assuming we are calculating price elasticity of room demand if price drop from 1996 to 1997. (Refer Table 16)

Price Elasticity of Room Demand (Epr)

$$E_{pr} = \frac{Q_1 - Q_0}{P_1 - P_0} \times \frac{P_0}{Q_0}$$

Q₀ & P₀ = Initial quantity and price demanded

Q₁ & P₁ = New quantity and price demanded

Substituting the data in table 16 into the formula, we will arrive at

$$E_{pr} = \frac{57095 - 53275}{97 - 88} \times \frac{88}{53275} = 0.701$$

The demand for room is inelastic should there be a price change. There are no specific data to segregate demand for rooms by local tourists and foreigners; therefore the findings would represent overall elasticity of demand. In short, a one percentage increase in the average price of rooms would cause demand for rooms to increase by 0.701 percent. (A positive relationship). Based on the relationship between revenue yield and price elasticity of demand, if hotel operators would want to increase revenue, it should increase room price as the demand for hotel room is inelastic.

Nevertheless realistically this would often work for foreign tourists but not practical for local tourism. According to Tourism Malaysia, the changes in expenditure by foreign travelers will not fluctuate much as compared to the local traveler should there be a price increase.

5.2.31 Suggestions for Action

Government may consider allowing hotel operators to carry out price discrimination for foreign and domestic travelers. Therefore higher charges may still yield revenue from foreign tourists and. Local tourists should be charged less.

5.3 Multiplier Effect

Multiplier is define as the ratio of change in the equilibrium level of output (national income) to a change in some autonomous variable (in this case consumption in travelers). Travelers spending help to promote economic activity in the country. Each ringgit spent generates income through the multiplier effect. Using the Keynesian model and modifying marginal propensity to consume to marginal propensity to consume by travelers, we can derive the marginal propensity to consume by travelers (MP_{Ct}) using the following formula:

$$MPC_t = \frac{\Delta \text{ in travelers consumption}^{40}}{\Delta \text{ in national income}^{41}}$$

$$\text{Therefore } MPC_t = \frac{617.5 - 692.3}{262091 - 201094} = -0.0012$$

(Data used are for year 1997 and 1998)

Therefore the Multiplier would be $1 / [1 - (-0.012)] = 1.001$. In short, for every Malaysian Ringgit a traveler spent, national income would multiply by 1.001 or 1 time (to the nearest)

5.3.1 Suggestions

From the above analysis, we know that the multiplier effect is calculated using the following formula $[1/(1-MPC_t)]$. $(1-MPC_t)$ can also be denoted as changes in savings(S) which can also be equivalent to investments(I) $[S=I]$. In order to have a larger multiplier effect, $(1-MPC_t)$ must be small. In other words MPC_t must be larger. This can be achieved by encouraging more spending especially among local tourists and foreign tourists in the country.

⁴⁰ Data obtained from *Tourism Malaysia Statistical Report 1998*

⁴¹ Data obtained from *Bank Negara Annual Report 1998*