Multiplier Effects of Malaysia's Tourists Expenditure Patterns

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Abstract

The main objective of the present paper is to examine the profile and expenditure of tourists from West Asia and its impacts on the Malaysian economy. The paper analyses the expenditure patterns of West Asia tourists in Malaysia. The results highlight a number of effects on each of the sectoral output, income and employment and explain which sector can benefit from tourist expenditure through indirect and induced income and employment generations. Also the present paper aims to explore some of the possible policy responses of the tourism sector improvements and developments in order to formulate appropriate policy implications to promote Malaysia as an ideal destination for tourist from Islamic Countries. The results show that some sectors can be considered as tourism strategic industries such as hotels and restaurants, business services, entertainment and wholesale and retail trade. The tourism's policy, therefore, should provide more emphasis on the development of these strategic industries.

1. INTRODUCTION

Tourism industry has various impacts on the economy. It contributes to sale, profits, employment, tax revenue and income. The most direct effects occur within certain sector such as hotels and restaurants, wholesale and retail trade, transport and business services, while indirect effects of tourism affects most of the economy's sector. Recently, tourism receipts in Malaysia has contributed 48% to total services receipts, generating a surplus in the services account of the country's balance of payment. Tourism is fast becoming Malaysia's second largest foreign exchange earner, after the manufacturing sector. The aim of the paper is to analyze the impact of the shifting in the composition of the inbound tourists to Malaysia from the traditional ASEAN countries towards West Asia. An input-output technique of tourist impact analysis would be adopted to determine the multiplier effects of each Ringgit spent on output, income and employment. The present paper attempts to prove that differences in expenditure profile among classes of tourists and the changing composition of tourists' arrival in Malaysia must have important policy recommendations on the economy.

2. LITERATURE REVIEW

A number of economic studies have been conducted on Malaysian tourism including that of tourist travel and expenditure profile, which have not only provided the necessary information for policy making but establishing the guidelines to improve the industry and related sectors.

Shahwahid *e.l et.* (1991) investigated the travel and expenditure pattern on the Malaysian economy based on survey information covered the period of 1990. They found that tourist arrivals tend to come from East Asian countries. Their study compared and contrasted the travel and spending behaviour between the domestic, Singaporean and other foreign tourists as well as between regions of the countries. Their results shown that there were some differences in the pattern of tourist expenditures according to geographical regions and as to local and import content of purchased items. The highest amount of expenditures on shopping by domestic tourists occurs in the central region whereas that by Singaporean and other foreign tourist occurs in the Southern and Northern regions respectively.

Zakariah and Shahwahid (1992) carried out an impact analysis study on tourism industry based on questionnaire method in 1991. They evaluated the impact of tourist expenditures on each of the gross output, employment and imports. Their results highlighted a number of tourism strategic sectors and at the same time focus on other sector, which benefit from tourist expenditure through indirect and induced income and employment generated.

The most related studies has been done by Sharif and Zakariah (2003, 2004) on the economic impacts of changing tourist profile in Malaysia for years 2001-2002.They have shown in their results that tourism activities in Malaysia appears to be favourable not only to the external account but also in generating local value-added and tax revenue. They found that tourist from West Asia which most of them from Muslim and Arab countries, spent relatively higher proportion on wholesales and retail trade. The expenditure pattern of tourist from West Asia is favourable to the economy in terms of having a remarkable proportion of their expenditure on item that has a considerable multiplier effect on output and value-added and friendly to the external demand.

3. METHODOLOGY AND DATA SOURCE

Input-output model:

Input-output models are most widely used to trace the effects of changes in final demand through the economy. There are two commonly used versions of the input-output model including open and closed. The open IO model captures only the direct and indirect effects. A closed version incorporates household sector into the first quadrant of common IO table. By treating household income and expenditure as endogenously determined, the model allows for getting induced effects as well as direct and indirect effects. In this paper, closed input-output model with respect to household is used.

Multiplier Formulas

The matrix formula used for calculating the output multipliers is given in equation (1) below. Similar equations apply to the other multipliers; for details see Miller and Blair: 1985). We assume that the national economy is subdivided into n sectors. While we consider the household sector as the n+1 one and add it to it the first quadrant, then closed IO model is constricted. According to closed input-output

model where $\bar{\alpha}_{ij}$ using to denote a measure that is calculated from the Leontief inverse of the matrix with households endogenous $(I-A^*)^{-1}$, where augmented A^* matrix is conceptually similar to the A matrix, except that each round of economic reaction now incorporates both an addition to the income of households and an increase in output of the local sectors to satisfy the requirements caused by the local expenditure of this household income. Thus the inverse of the closed model is:
$I+A^{*2}+A^{*3}+...+A^{*n} = (I-A^*)^{-1}$ includes an income multiplier and a consumption effects. The formulas to calculate multiplier can be written as follows:

Output multiplier effects:

$$(I-A^*)^{-1} \qquad (1)$$

Income multiplier effects:

$$c(I-A^*)^{-1} \qquad (2)$$

Employment multiplier effects:

$$e(I-A^*)^{-1} \qquad (3)$$

Multiplier Effects

The multiplier coefficients demonstrate the ability of any given sector to generate output, income and employment from any given change in the demand for its output. The multiplier values can be used to show the impact on the national economy as a result of a given change in any of its final demands. These impacts can be sub-divided into three categories:

1- Direct Effects

The direct effects are those effects brought about directly in those sectors that are subject to the change in final demand. Therefore, those manufacturing industries that involved directly in the production of those products will directly feel a change in the level of activity of the wood products industry.

2- Indirect Effects

When there is a change in final demand for a sector's output the sector's that produce that output will have input demands of their own. For instance, the electrical machinery industry may need to purchase additional transport services, other financial services from industries within their sector and supporting services related to, say energy services.

3- Induced Effects

Whenever a good or service is produced some income is accrued as wages, salaries, profit, rent or interest (or some combination of these). Therefore, during the direct and indirect effects income is accrued as a result of the initial change in final demand. When that income is re-spent it triggers of another round of economic activity. This additional round of economic activity generates output, income, and employment, The economic effects that are the result of the re-spending of accrued income are know as the induced effects. The multiplier ratios allow the determination of the full effects

resulting from any change in final demand. Depending upon the multiplier these full effects may be the direct plus indirect effects, or the direct plus indirect plus induced effects.

Data Sources

Secondary data are gathered from Input-output tables. Data on input-output coefficients were obtained from Malaysia's input-output table published by Department of Statistics Malaysia (2002). Employment figures used to derive sectoral labour coefficients were estimated from Department of Statistic Malaysia (various issues). Data on household figures were estimated from national account statistics. The multiplier derived from the closed model represents the output required producing one Ringgit Malaysia (RM) of final demand plus additional consumption induced by the additional income generated.

4. RESULTS AND DISCUSSION

Based on the previous discussion, this paper will put forth some propositions that will form the hypothesis of the research. The propositions are as follows:

1- The tourists from West Asia are attracted to Malaysia due to common cultural, heritage and religious factors.
2- The tourists from West Asia would spend higher percentage of average expenditure on entertainment, lodging and travelling, respectively.
3- In general, West Asia tourists would recommend Malaysia as a tourist destination.
4- There will be an increasing trend of tourist's arrival and tourist receipts from West Asia in the future.

The tourism industry has experienced rapid growth and gained in importance for the Malaysian economy during the last decade. The main positive economic impacts of tourism relate to foreign exchange earnings, contributions to government revenues, and generation of employment and business opportunities. Malaysian tourism has experienced an average growth rate of 9.26% between 1981 and 2000 (Badaruddin, 2002). Tourism receipts has contributed 48% to total services receipts in 2002, generating a surplus in the services account of the country's balance of payment (Economic Review, 2003). Tourism is fast becoming Malaysia's second largest foreign exchange earner, after the manufacturing sector (Sharif & Zakariah, 2004).

The financial crisis has lead government to focus tourism activities on countries that are not affected such as China, Middle East, Australian and Europe. The impact of the financial crisis, the September 11 attacks and the US-Iraq war change the composition of inbound tourists to Malaysia. The number of visitors from Arab countries rose 115% in 2001. Arab tourists usually travel around June to the middle of September for summer family holidays, and the two Eid holidays following Ramadhan (British Tourist Authority, 2003). By 2002, the percentage increase was 14.8%, reporting tourist's arrival of 131,779 from the West Asia (Sharif & Zakariah, 2003). Due to the noticeable shift in the composition of tourists, Malaysia is making a major promotional push in the Middle East with a new focus on adventure and eco-tourism.

Under the Eighth Malaysia Plan (2001-2005), the tourism sector will assume an even greater role in stimulating the growth of the economy. Tourist arrivals are expected to rise at an average rate of 6.9 per cent a year to reach 14.3 million by 2005. Receipts are targeted to grow at an average annual rate of 9.5 per cent to reach RM29.5 billion. With revenue at RM20 billion, it is now the second largest foreign exchange earner for the country, after the manufacturing sector. It ranked fifth in 1994, third in 1995 and second in 1996. However, it dropped back to third placing in 1997 and 1998 (Business Times, 2002). On average, within the period of 1995-2002[1] tourists arrival increased by 8.6% per year (Economic Review, 2003). The biggest number of tourists came from ASEAN countries, as shown in Table 1.

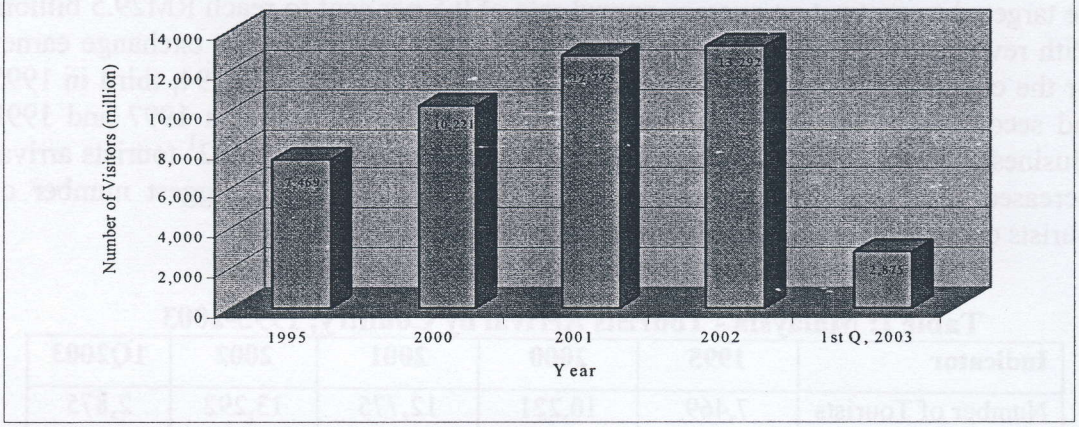
Table 1: Malaysia - Tourists Arrival by Country, 1995-2003

Indicator	1995	2000	2001	2002	1Q2003
Number of Tourists Arrivals ('000)	7,469	10,221	12,775	13,292	2,875
By country of origin (%)	1995	2000	2001	2002	1Q2003
ASEAN*	73.5	70.3	72.1	74.1	69.4
Japan	4.4	4.5	3.1	2.7	2.7
China	1.4	4.2	3.5	4.2	4.7
Taiwan	3.9	2.1	2.0	1.6	1.7
Hong Kong	2.0	0.7	1.1	0.9	0.7
India	0.4	1.3	1.1	1.4	1.3
Australia	1.8	2.3	1.7	1.5	1.4
United Kingdom	2.2	2.3	2.1	1.8	1.2
USA	1.3	1.8	1.1	1.0	1.2
Others	9.1	10.5	12.1	10.8	15.7

*Note: *Excluding Myanmar, Vietnam and Cambodia.*
Source: Malaysian Tourism Promotion Board.

[1] Except 1997 and 1998

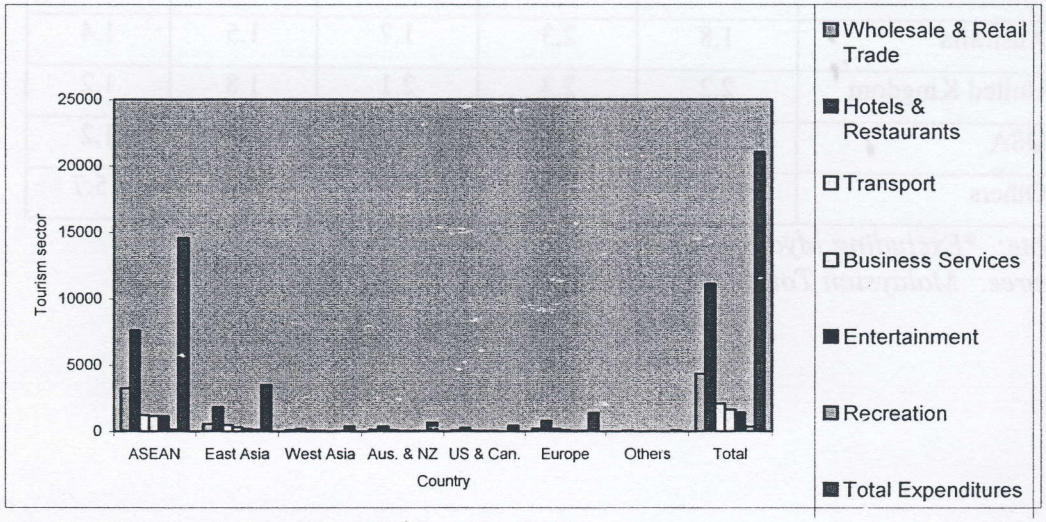
Figure 1: Visitors Arrival in Malaysia, 1995 - 2003



Source: *Malaysia Tourism Promotion Board.*

However, due to September 11 attacks, the Arab visitors from the Middle Eastern countries are increasing in number, changing the composition of the tourists profile. Middle Eastern tourists are the highest per capita spenders and they spend about RM 5,000.00 for a 10-day visit. Figure 2 shows the components of tourist's expenditure by regional destinations.

Figure 2: Components of Tourists Expenditure by Regional Destinations



Source: Tourism Malaysia (2003)

On the other hand, the tourism receipts increased by 15.9% per year during the period of 1995-2002. The average length of stay increased to 7.8 nights in 2002 compared to 4.8 nights in 1995. The average per capita expenditure of tourists increased by 58% from RM1, 228 in 1995 to RM1, 939 in 2002. Travel receipts contributed to 48% of total services receipts in 2002, helping Malaysia to reduce deficit in the services account of Malaysia's balance of payment. Travel receipts have been generating surpluses since 1998 (Economic Review, 2003).

Tourism industry also helps create both backward and forward linkages in the economy through the input and output requirements of the hotels and restaurants industry. The other link could be seen in the tourist expenditure pattern, whereby almost 80% of the expenditure is on accommodation, shopping, food and beverages and local transportation (Economic Review, 2003). The average expenditure per day by the tourist was some RM310.80, up 6.3 per cent from RM292.40 the year before (Malaysia Tourism Board, 2003). Tourists' expenditure on food and drink currently represents about 10% of the food service market (Chang and Lee, 2003).

Our research will focus on change in output, import and value added in the economy resulting from tourism industry. The study uses multiplier effects to indicate that each Ringgit of direct expenditure generates another Ringgit in output, import and value added. To substantiate the findings, a short survey will also be administered to establish the Muslims tourists profile from West Asia. The descriptive analysis would be performed on the primary data collected.

Output, Income and Employment Multiplier Effects

Based on the technical and interdependent intermediate coefficient information for input-output system, the total output, income and employment multiplier have been calculated for selected tourism sectors. Table 2, 3 and 4 shown the empirical results for direct, indirect, induced and initial effects for selected tourism sectors.

The total output multiplier consists of initial, direct, indirect and induced-consumption effects. Initial effects are actually for every Ringgit Malaysia (RM) increases in the final demand to stimulate the economic growth. Direct effects represent the first-round purchases made by each sector from all other intermediate per every RM 1 worth of output. While indirect effects reflects a series of indirect purchases as wave of second, third and subsequent-round effects make their way the local economy.

These ripple effects spread through the local economy, each succeeding round becoming smaller and less significant, and eventually becoming small enough to be of no analytical interest (Jensen and West: 1986). The induced-consumption output effect is actually the column total of inverse matrix (excluding salaries and wages) for closed input-output system. The total output multiplier is the summation of initial, direct, indirect and induced-consumption effects.

Table 2: Output multipliers for selected tourism sectors

Sectors	Initial	Direct	Indirect	Induced	Total
Wholesale & retail trade	1	0.257307	0.110507	0.421411	1.789224
Hotel & restaurants	1	0.490430	0.275951	0.305206	2.071587
Transport	1	0.321253	0.169109	0.232527	1.722889
Business services	1	0.297604	0.137703	0.305056	1.740363
Entertainment	1	0.400115	0.190112	0.434040	2.024268
Recreation	1	0.155348	0.065741	0.195751	1.416840

As shown in Table 2, the hotel and restaurants total output is the first highest sector followed by entertainment. The total output multiplier for hotel and restaurants is RM2.1, which constitutes RM1 from initial effect, RM0.49 from direct effect, RM0.28 from the indirect effect, and RM0.31 from the induced-consumption effect.

Therefore the flow-on effect for the hotel and restaurants sector is RM1.07 for every RM increase in the final demand.

Table 4: Income multipliers for selected tourism sectors

Sectors	Initial	Direct	Indirect	Induced	Total
Wholesale & retail trade	0.502231	0.072871	0.008226	0.143854	0.727181
Hotel & restaurants	0.218934	0.173378	0.030160	0.104186	0.526659
Transport	0.205559	0.116422	0.000112	0.079376	0.401245
Business services	0.314732	0.092387	0.015147	0.104135	0.526400
Entertainment	0.427031	0.127059	0.046720	0.148165	0.748975
Recreation	0.217916	0.043964	0.009083	0.066822	0.337785

The household income multiplier explains the income effects of the output change in the final demand. It is actually an attempt to translate, in one way or another, the impact of final demand spending changes into changes in income received by the household, rather than translating the final demand changes into a sectoral output (Miller and Bliar, 1985).

Table 3 presents the income multiplier for hotel and restaurants and related tourism industry sectors. Entertainment sector ranks first among the tourism based industries. The total income multiplier for entertainment sector is RM0.75, which constitutes RM0.50 from the initial effect, RM0.07 from direct effect, RM0.01 from indirect effect, and RM0.14 from induced-consumption effect. The flow-on effect form entertainment industry is estimated at RM0.32 Also wholesale and retail trade sector has actually the highest total income multiplier after entertainment, which is estimated for every RM1 increase in the final demand to generate income by RM0.73.

Table 5: Employment multipliers for selected Tourism sectors

Sectors	Initial	Direct	Indirect	Induced	Total
Wholesale & retail trade	0.000096	0003302	0.002099	0.015930	0.0214264
Hotel & restaurants	0.006210	0.026637	0.016304	0.011537	0.054478
Transport	0.004264	0.03952	0.003203	0.008790	0.0202092
Business services	0.040400	0.006992	0.003150	0.011531	0.0620735
Entertainment	0.039890	0.010871	0.004576	0.016407	0.0717449
Recreation	0.004778	0.007343	0.001918	0.007400	0.0214378

Employment multiplier will enable us to estimate the amount of employment generated for every RM1,000 increase in the final demand for all sectors in the economy including tourism sectors. Table 4 shows employment multipliers for tourism sectors. Entertainment has the highest total employment multiplier. It is expected to generate employment by 0.07 persons for every RM1,000 increase in the final output. These are followed by business services 0.06 person and hotel and restaurants 0.05.

We can conclude that industries or sectors that enjoy greater economic benefits from tourism are hotel and restaurants, entertainment wholesale and retails trade and business services, reflected by a large contribution in each total output and generating greater income and employment. While other sectors such as transports, recreation

has strong capacity to generate direct and induced income and employment if tourism policy should provide more emphasis on the development of these sectors.

5. CONCLUSION

The purpose of the survey is to gather primary data on the inbound tourists from West Asia during mid 2004. 300 survey questionnaires were administered at various locations around Kelang Valley. The total of 213 responses were analyzed for a 71 percent response rate. A general descriptive and correlation statistical analysis were conducted on the data collected and submitted for computer analysis using SPSS software package v.11.0.

The overall general profile of the visitors, their travelling pattern, their average expenditure patterns and the overall profile of the nonconsiderers were examined. In general, the findings showed that 93.9 percent of the visitors (200 respondents) recommended Malaysia as a tourist destination. 6.1 percent (13 respondents) did not recommend Malaysia.

The findings revealed that in general, the visitors were male of the 20 to 30 age group. Almost 50 percent of them were Saudi Arabians. The main purpose of the visits was vacation and words of mouth are still the prevalent mode of how Malaysia was promoted. Major activities performed were shopping and recreational activities. Most of the visitors made their own traveled arrangement and were accompanied by their family or relatives and majority of them stayed at the hotel. Major items purchased were clothes and textiles and batik. There were significant differences between gender and age group in items purchased. The male visitors in the 20-30 age groups have the highest mean purchasing items.

The average expenditure pattern of the visitors was consistent with the official statistics released by the Malaysia Tourism Board (2003). The tourists spent the most on accommodation, shopping and food and beverages.

On the other hand, the nonconsiderers displayed quite similar pattern to the overall profile of the visitors. This might due to the small sample size. Vacation was not cited as the main reason for visiting Malaysia. They were mostly on business trips or other unidentified reasons; they traveled by air and more than two-third of them stayed at the hotel during their stay. However, there was statistically significant different between the means score of items purchased between the two groups. The purpose of the visit was found to be associated with recommending Malaysia as a tourist destination.

The nonconsiderers commented on a few areas namely hotel accommodations, public transportation and shopping activities. In response to their concerned, building Islamic hotels as practiced by Brunei might attract them to revisit. Furthermore, since Malaysia is a multi-racial country, some local lifestyles might not be in line with the *Shariah* requirements. This fact should be made aware of and reemphasized for the West Asia tourists. For the shopping facilities and the availability of public transportation, these are endogenous factors that can be improved. Another potential

area to be developed is the internationally recognized Islamic education system in Malaysia.

Therefore, based on the findings, the research has identified a number of key imperatives as being critical to the development of tourism industry in Malaysia:

1. Explore the emotional, experiential side of the tourists so that the nonconsiderers will find reasons to visit Malaysia.

2. New reasons must be created for the visitors who had been here but were not inclined to revisit. A new global brand identity for Malaysia could be based on the cultural and heritage background. What uniquely constitute Malaysia must be promoted to keep the inbound visitors coming. Batik is a unique feature of Malaysia that has the potential.

3. Education might be another marketable items that can generate a lot of income for the tourism sector. Malaysia aspires to be the regional center of excellence in education.

4. Identify the key short and long-haul markets, now and in the future.

By adopting the above-mentioned research methodology, the researchers have gathered relevant information in order to summarize and conclude the findings of the survey. It is hoped that the methodology adopted and the findings obtained would offer some fresh insights to subsequent researches on the economic impact of inbound West Asia tourists to the Malaysia economy.

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