

# TOURISM SATELLITE ACCOUNT: THE CONTRIBUTION OF INBOUND AND DOMESTIC TOURISM IN THE MALAYSIA ECONOMY

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## ABSTRAK

*Tujuan kertas ini adalah untuk berkongsi pengalaman penyusunan Akaun Satelit Pelancongan ( TSA ) di Malaysia. TSA dapat mengukur sektor pelancongan dengan tepat dan perbandingan dengan sektor-sektor ekonomi yang lain dapat dibuat. Penemuan TSA dapat memberi maklumat mengenai saiz sebenar dan nilai industri pelancongan. TSA adalah penyusunan yang dapat dibandingkan di peringkat antarabangsa dan mempunyai kebolehpercayaan yang tinggi kerana ia disusun berdasarkan statistik yang berkualiti yang dihasilkan oleh sistem statistik rasmi negara. Penyusunan ini adalah berdasarkan manual The United Nations World Tourism Organization (UNWTO) iaitu Recommended Methodological Framework (RMF) dan International Recommendations for Tourism Statistics (IRTS) 2008. Berdasarkan penyusunan TSA, kertas ini menghuraikan secara terperinci hasil penemuan pelancongan inbound dan domestik dalam ekonomi Malaysia. Pelancongan inbound telah diiktiraf sebagai penyumbang utama kepada industri pelancongan; pada tahun 2013 ia mencatatkan nilai sebanyak RM67.7 bilion. Sementara itu, pelancongan domestik juga penting kepada ekonomi negara kerana ia menyumbang 41.3 peratus daripada jumlah terimaan pada 2013. Kertas ini turut membincangkan corak perbelanjaan pelancongan bagi menunjukkan produk yang mendapat permintaan tertinggi oleh pelawat.*

*Kata kunci: Pelancongan, Akaun Satelit Pelancongan, Perbelanjaan Pelancongan Inbound, Perbelanjaan Pelancongan Domestik, Penggunaan Pelancongan Internal.*

## ABSTRACT

*The aim of this paper is to share the experience of compiling Tourism Satellite Account (TSA) in Malaysia. TSA will allow tourism sector to be accurately measured and compared with other economic sectors. The results of TSA will provide information on the true size and value of the tourism industry. TSA compilation is internationally comparable and the reliability is high since they are based on the quality statistics produced by the official national statistical systems. This compilation is based on the recommendations from The United Nations World Tourism Organization (UNWTO) manuals namely Recommended Methodological Framework (RMF) and International Recommendations for Tourism Statistics (IRTS) 2008. Based on the compilation of TSA, this paper elaborates the details findings on inbound and domestic tourism in Malaysia economy. The inbound tourism has been recognised as a main contributor to the tourism industry; in 2013 it recorded a value*

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*of RM67.7 billion. Meanwhile, the domestic tourism is also pertinent to the economy as it contributed 41.3 per cent of total receipts in 2013. This paper also discusses on the pattern of tourism expenditures that indicate the highest consumed products by visitor.*

*Keywords: Tourism, Tourism Satellite Account, Inbound Tourism Expenditure, Domestic Tourism Expenditure, Internal Tourism Consumption.*

## **1. INTRODUCTION**

Tourism Satellite Account (TSA) provides internationally recognised and standardised method of assessing the impact of tourism and its links across different sectors. TSA is a comprehensive framework which identifies the importance of tourism in an economy and enables comparisons in terms of their contribution to the economy between tourism sector and other sectors as well as other countries. As such, the satellite account provides an invaluable tool for measuring and monitoring the development of tourism and assessing its economic contribution. The compilation of TSA is based on the collection and processing of comprehensive statistics. The account integrates data pertaining to the supply and use of tourism related goods and services.

Since early 1980, Malaysia's government has begun to promote Malaysia as a tourist destination. Numerous campaigns were introduced to encourage international and domestic tourism activity in the country. To gauge the successfulness of these campaigns and promotions, only the number of inbound visitors was available which were insufficient to measure the implication to the economy. Thus, since 2003 DOSM embarked to develop TSA for the nation. The objective of compiling the TSA for Malaysia is to measure the contribution of tourism industry to economy; to analyse in detailed all aspects of demand for goods and services associated with the activity of visitors; to observe the interactions with the supply of such goods and services of tourism within the economy; as well as with other economic activities within or outside Malaysia.

TSA is compiled by Department of Statistics, Malaysia (DOSM) in collaboration with Ministry of Tourism and Culture Malaysia (MOTAC), Malaysia Tourism Promotion Board (MTPB) and Immigration Department of Malaysia. The TSA statistics will be a benchmark to measure the importance of tourism industry in Malaysia. In addition, TSA will provide a basis for the implementation of strategic plans to realise the 12 Entry Point Projects for tourism identified under National Key Economic Areas. With the TSA, government will be more equipped in formulating public policies. Besides that, researchers, industry players and public enable to design their business strategies for tourism and evaluating their effectiveness and efficiency.

This paper will discuss the application of TSA in estimating the contribution of inbound and domestic tourism in Malaysia's economy. Furthermore, this paper also discusses on the pattern of tourism expenditures that indicate the most demanded products by visitor. The structure of the paper is as follows: literature review followed by concepts & definitions, methodology, results and conclusion.

## 2. LITERATURE REVIEW

The TSA was first initiated by United Nations World Tourism Organization (UNWTO) in 1993. The main principles of the TSA are described in the 'Tourism Satellite Account: Recommended Methodological Framework' (RMF) and International Recommendations for Tourism Statistics (IRTS). These documents were presented by the United Nations Statistics Division (UNSD), the Statistical Office of the European Communities (EUROSTAT), the Organization for Economic Co-operation and Development (OECD) and the United Nations World Tourism Organization (UNWTO). The concepts and definitions are based on the System of National Accounts (SNA) and Balance of Payments Manual.

Rabahy, Kadota, De Oliveira Santos and Vassallo (2009) claimed that a satellite account is a set of economic accounting registries of a special sector within the national economy. It gravitates around the main system of national accounts, thus being called satellite. The satellite account consists on a different way of presenting the economy divided into parts, rearranging the information in such a way that a specific area of concern can be highlighted, without overburdening or disrupting the central national account system. The TSA aims to compile and present information's about the participation of this sector on a national or regional economy.

At least 37 countries (UNWTO, 2009) already have complete or incomplete TSAs. The UNWTO expects that this number will increase fast in the next few years. In 1999, total tourism consumption in Brazil was R\$ 51.1 billion and equivalent to 8.5 per cent of total Brazilian household consumption, or 5.3 per cent of the Brazilian GDP. The expenditure on tourism goods and services within the country was R\$ 45.4 billion and equivalent to 7.6 per cent of total household consumption or 4.7 per cent of the GDP. Their survey showed that domestic tourism is responsible for the greatest share of internal tourism. Domestic tourism consumption was R\$ 38.8 billion, while inbound tourism represented only R\$ 3.9 billion.

Working papers on Tourism Satellite Accounts (TSA) in Europe (Eurostat, 2011) mentioned that overnight visitors (tourists) contributed 89.0 per cent to inbound tourism expenditure. These results were available for all 23 participating countries; although absence of data, in particular from France, Italy and Greece. Given that, they found that Spain recorded the highest value (€44,983 million in 2006) which was equal to 26.0 per cent of inbound tourism expenditure in all 23 countries observed. Germany came second (€26,928 million in 2000), followed by the United Kingdom (€23,471 million in 2006) and Austria (€16,512 million in 2008). These four countries totaled 64.0 per cent of inbound tourism expenditure in all the participating countries. On the domestic side, the highest expenditure was reported by the United Kingdom (€120,420 million in 2006). This was 32.0 per cent of domestic expenditure estimated by all 23 participating countries. The UK was followed by Germany (€107,521 million in 2000) Spain (€47,350 million in 2006) and the Netherlands (€27,336 million in 2006). The UK and Germany together totaled about 60.0 per cent of the total domestic tourism expenditure.

### 3. CONCEPTS

Tourism Satellite Account of Malaysia has been prepared based on RMF and IRTS published by the UNWTO. The concepts and definitions of TSA are abstracted and synchronised according to Malaysia's need. A visitor is defined as traveller taking a trip to a main destination outside his/her usual environment, for less than 12 months other than to be employed by resident entity<sup>2</sup> in the country or place visited. The main purposes of visit as incorporated in IRTS are business and professional, holiday, leisure and recreation, visiting friends and relatives, education and training, health and medical care, religion/pilgrimages, shopping and transit.

In Malaysia's case, scenario 'balik kampung'<sup>3</sup> practiced by residents during festive seasons is also defined as tourism. A visitor is classified into two categories namely tourist if his/her trip includes an overnight stay and excursionist if his/her trip takes less than 24 hour.

UNWTO identified that inbound tourism comprises the activities of a non-resident visitor within the country of reference (Malaysia) on an inbound trip. While, outbound comprises the activities of a resident visitor outside the country of reference (Malaysia), either as part of an outbound trip or as part of a domestic trip. Internal tourism comprises domestic tourism and inbound tourism, that is the activities of resident and non-resident visitors within the country of reference (Malaysia) as part of domestic or international trips.

### 4. METHODOLOGY

The satellite account for tourism is developed as tourism is not an industry in the way industry is defined in System of National Accounts. Instead, tourism is a demand-based concept defined not by its output but by its use. Industries defined in national accounts including transportation, hotels and restaurants produce an output irrespective of whether it is consumed by visitors or residents. Even though the total output of these industries is usually captured by national accounts; it is only the consumption by visitors that defines the tourism economy.

TSA on demand side comprises of inbound and domestic tourism expenditure. The summation of these two types of expenditure equals to internal tourism consumption. Meanwhile on the supply side, it provides the information on the contribution of

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<sup>2</sup> A resident unit of a country when it has a centre of predominant economic interest in the economic territory of that country; that is, when it engages for an extended period (one year or more being taken as a practical guideline) in economic activities on this territory. "entity" means any corporation, statutory body, local authority, society, co-operative, limited liability partnership and any other body, organisation, association or group of persons, whether corporate or unincorporate, in or outside Malaysia and also includes the Federal Government, State Government or any other governments;

Therefore, resident entity refers to a group of entities which included ultimate holding entity; parent or head office; branch; subsidiary where the resident entity owns more than 50% of shares in the subsidiary; associate company where the resident entity owns between 10% and 50% of shares in the associate company; or sister company where the resident entity and its sister company have common shareholder.

<sup>3</sup> 'Balik Kampung' is a tradition for Malaysian citizens to return to their hometown during the holiday celebration (e.g; school holidays, Eid celebration, Chinese New Year, Deepavali and Christmas) to visit their parents and relatives.

tourism industry to the economy through the Gross Value Added of Tourism Industries (GVATI) and Tourism Direct Gross Domestic Product (TDGDP).

#### **4.1 Scope and Data Sources**

The framework of TSA consists of inbound, domestic and internal tourism expenditure by products. Each of the expenditure is made by the visitor (tourist and excursionist). In TSA, the tourism characteristic products are such as accommodation services, food & beverage serving services, railway passenger transport services, road passenger transport services, water passenger transport services, air passenger transport services, transport equipment rental services, travel agencies & other reservation services, cultural services, sports & recreational services and country-specific tourism characteristic products are measured.

The data on inbound tourism expenditure by product are obtained from Departing Visitor Survey (DVS) conducted by MTPB annually. DVS is carried out at major entry points around Malaysia on international tourist before their departure from this country. Quota sampling is applied to determine the sample size, which are 50,000 respondents selected each year. Among the information that can be gathered from DVS is tourist expenditure, components of expenditure, travelling pattern and demographic profile.

Domestic Tourism Survey (DTS) provides data on domestic tourism expenditure by product, which is conducted by DOSM on annual basis. The frame used for this survey is from the National Household Sampling Frame (NHSF), which was made up of Enumeration Blocks (EBs) created for the 2000 Population and Housing Census. A two-stage stratified sample design is applied to determine the sample size for each year. In 2013, the sample size was 30,472 living quarters.

The information that can be obtained from DTS is average per capita of tourism expenditure, average length of stay, demographic profile of tourist, travelling pattern and components of expenditure. However, data on domestic tourism expenditure in TSA are different from the domestic tourism expenditure published data. This is due to the conceptual difference in expenditures of accommodation services for visitors and food & beverage serving services.

There is a slight different between the statistics produced by TSA domestic expenditure and the total expenditure survey data. TSA compilation does not take into account the expenditures that are not paid by visitors such as accommodation services at homes of friends or relatives and food & beverage consumed at homes of friends or relatives.

Internal tourism expenditure is the combination of both inbound and domestic tourism expenditure. In order to get the internal tourism consumption, other components of tourism consumption such as transfer in kind need to be measured. Thus, internal tourism consumption measures the total demand of foreign and domestic visitors and also the income/receipts from tourism activity.

## 5. MODEL SPECIFICATION

### 5.1 Demand Side of TSA

#### 5.1.1 Inbound Tourism Expenditure

Inbound tourism comprises the activities of a non-resident visitor within Malaysia on an inbound trip. Inbound tourism expenditure is a tourism expenditure made by a non-resident visitor within Malaysia and the expenditure could be obtained using the formula as follows:

$$\sum_{i=1}^7 E_{iv} = \sum_{i=1}^7 E_{it} + \sum_{i=1}^7 E_{ie}$$

where,  $E_{iv}$  is inbound tourism expenditure of visitors by products  
 $E_{it}$  is inbound tourism expenditure of tourists by products  
 $E_{ie}$  is inbound tourism expenditure of excursionists by products  
 $i = 1, 2, \dots, 7$  (refer to Appendix )

#### 5.1.2 Domestic Tourism Expenditure

Domestic tourism comprises the activities of a resident visitor within Malaysia either as part of a domestic trip or part of an outbound trip. Domestic tourism expenditure is a tourism expenditure spent by a resident visitor within Malaysia and the formula is as follows:

$$\sum_{i=1}^7 E_{dv} = \sum_{i=1}^7 E_{dt} + \sum_{i=1}^7 E_{de}$$

where,  $E_{dv}$  is domestic tourism expenditure of visitors by products  
 $E_{dt}$  is domestic tourism expenditure of tourists by products  
 $E_{de}$  is domestic tourism expenditure of excursionists by products  
 $i = 1, 2, \dots, 7$  (refer to Appendix )

#### 5.1.3 Internal Tourism Consumption

Internal tourism comprises inbound and domestic tourism, which is the activity of resident and non-resident visitors within Malaysia as part of domestic or international trips. Internal tourism consumption is all tourism expenditure of visitors, both resident and non-resident, within Malaysia. It is the sum of inbound and domestic tourism expenditure as shown below:

$$\sum_{i=1}^7 C_v = \sum_{i=1}^7 E_{iv} + \sum_{i=1}^7 E_{dv}$$

where,  $C_v$  is internal tourism consumption of visitors by products  
 $E_{iv}$  is inbound tourism expenditure of visitors by products  
 $E_{dv}$  is domestic tourism expenditure of visitors by products  
 $i = 1, 2, \dots, 7$  (refer to Appendix )

## 5.2 Supply Side of TSA

### 5.2.1 Gross Value Added of Tourism Industries

Gross Value Added of Tourism Industries (GVATI) is the total gross value added of all establishments belonging to tourism industries, regardless of whether all their output is provided to visitors and of the degree of specialisation of their production process.

$$\sum_{i=1}^7 GVA = \sum_{i=1}^7 O - \sum_{i=1}^7 I$$

where,  $GVA$  is Gross Value Added  
 $O$  is output  
 $I$  is input  
 $i = 1, 2, \dots, 7$  (refer to Appendix )

$$\sum_{i=1}^7 GVATI = \sum_{i=1}^7 O_G - \sum_{i=1}^7 I_G$$

where,  $GVATI$  is Gross Value Added of Tourism Industries  
 $O_G$  is output of tourism industries  
 $I_G$  is intermediate consumption  
 $i = 1, 2, \dots, 7$  (refer to Appendix )

### 5.2.2 Tourism Direct Gross Domestic Product

Tourism Direct Gross Domestic Product (TDGDP) is the sum of the part gross value added generated by all industries in response to internal consumption. The amount of net taxes on products and imports are included within the value of this expenditure at purchasers' prices.

$$\sum_{i=1}^7 TDGVA = \sum_{i=1}^7 O_T - \sum_{i=1}^7 I_T$$

where,  $TDGVA$  is Tourism Direct Gross Value Add  
 $O_T$  is output of tourism industries and other industries  
 $I_T$  is intermediate consumption  
 $i = 1, 2, \dots, 7$  (refer to Appendix )

$$TDGDP = \sum_{i=1}^7 TDGVA + \sum_{i=1}^7 NT$$

where, NT is net taxes for tourism industries  
 $i = 1, 2, \dots, 7$  (refer to Appendix )

## 6. RESULTS

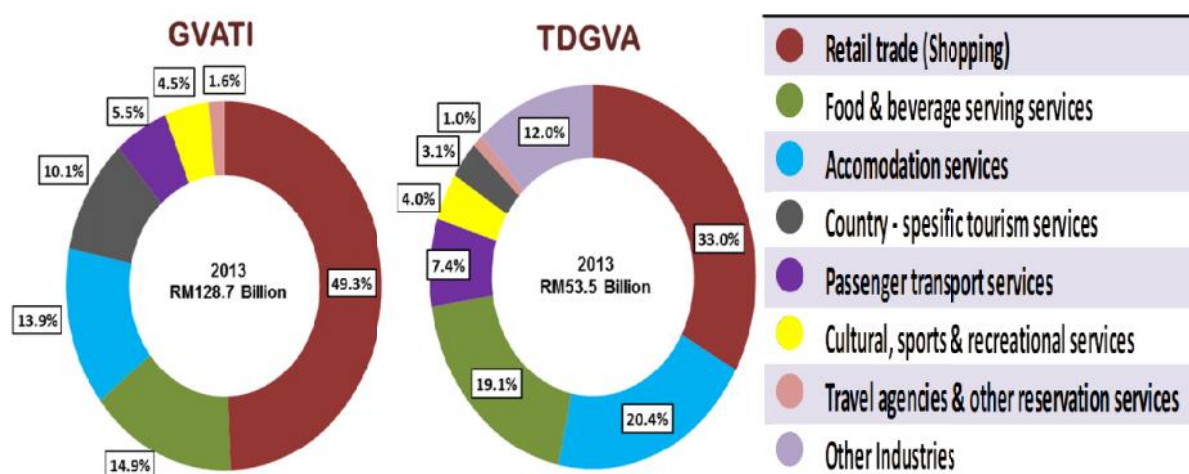
Total tourism expenditure consists of inbound, domestic and outbound tourism expenditures. However, this paper will focus on inbound and domestic tourism expenditures only. Outbound tourism expenditure is the activities of a resident visitor spending outside Malaysia and reflects the outflows of tourism expenditure.

### 6.1 The Contribution of Tourism Expenditure to the Gross Domestic Product

In line with the aspiration of Tourism NKEA, related programmes are identified to enhance tourism yields and thus, contribute to a better positioning in the economy. Various events and festivals were organised by MTPB in 2013 such as Grand Prix Petronas Malaysia F1, Le Tour de Langkawi, Colours of Malaysia, Malaysia Mega Sale Carnival, Floria Fest, Putrajaya International Hot Air Balloon Fiesta, Langkawi International Maritime Exhibition (LIMA), GP Sale and Malaysia Year End Sale.

These initiatives contributed to generate a GVATI of RM128.7 billion as against RM117.8 billion in 2012. GVATI registered a growth of 9.3 per cent with annual average<sup>4</sup> grew at 10.9 per cent. The contribution of GVATI to Gross Domestic Product (GDP) expanded to 13.1 per cent as compared to 12.5 per cent in the previous year. The highest value added was registered by retail trade (49.3 per cent), followed by food & beverage serving services (14.9 per cent) and accommodation services (13.9 per cent) as illustrated in Chart 1.

**Chart 1: Percentage share of gross value added of tourism industries and tourism direct gross value added, 2013**



Source : Department of Statistics, Malaysia

<sup>4</sup> Annual average growth calculation based on Compounded Annual Growth Rate (CAGR) technique.



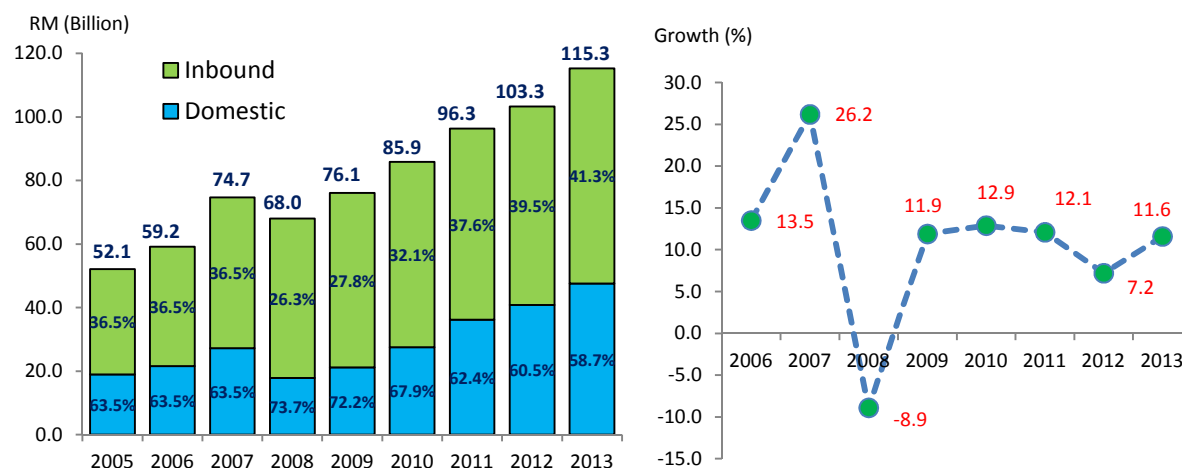
In 2013, TDGDP posted a value of RM53.5 billion with a growth of 8.2 per cent. The share of TDGDP to GDP marginally improved from 5.3 per cent to 5.4 per cent in 2013. As indicated in Chart I, the largest contributor was recorded by retail trade (33.0 per cent), followed by accommodation services (20.4 per cent) and food & beverage serving services (19.1 per cent).

Visitor arrivals amounted 35.7 million in 2013, which made up of 25.7 million tourist arrivals and 10.0 million excursionist arrivals. Most of the visitors were from ASEAN countries especially from Singapore and Indonesia. With an increase of 0.7 million inbound visitors, the inbound tourism expenditure has increased 8.3 per cent in 2013. The total visitor receipts was RM67.7 billion, which comprised of RM65.4 billion tourist receipts and RM2.3 billion excursionist receipts. Given that, the contribution of inbound tourism expenditure to the GDP was 6.9 per cent. In terms of average annual growth rate, the inbound tourism expenditure grew 9.4 per cent annually during the eight years period. Meanwhile the average annual growth rate for GDP grew 7.7 per cent annually. In addition, the inbound tourism expenditure accounted 8.4 per cent of total exports (merchandise and services) for 2013.

The average per capita inbound tourism expenditure was RM1, 897.3 in 2013. Inbound visitors spent mostly on shopping followed by accommodation and food & beverage serving services.

In 2013, the number of domestic tourists' arrival was 54.4 million. Selangor received the highest visitor arrivals of 21.1 million, followed by Sabah 15.8 million and Kuala Lumpur Federal Territory 14.4 million. The top destinations mostly visited by domestic visitors in Selangor were Sunway Lagoon Theme Park, Batu Caves, I-City and Zoo Negara. The domestic visitors' receipts registered RM47.6 billion and contributed 41.3 per cent of total receipts in 2013. Domestic tourism expenditure contributed 4.8 per cent to the GDP which is maintained in the range of 2.3 to 4.8 per cent from 2005-2013. It expanded from RM40.8 billion in 2012 to RM47.6 billion in 2013, which recorded a positive growth of 16.7 per cent in 2013. During the eight years period, domestic tourism expenditure grew 12.1 per cent annually. The highest expenditure by domestic tourists was on shopping, which registered RM15.7 billion.

Internal tourism consumption is the combination of both inbound and domestic tourism expenditure, accounted RM115.3 billion (Chart II). It decreased from 12.1 per cent in 2011 to 7.2 per cent in 2012 and subsequently increased to 11.6 per cent in 2013. The total output of tourism industry was RM 252.1 billion and 45.7 per cent of the output has been utilised for the internal tourism consumption in 2013. The contribution of internal tourism consumption to the GDP in 2013 was 11.7 per cent. During the eight years period, the contribution of internal tourism consumption to the GDP was between 8.8 to 11.7 per cent with the average annual growth of 10.4 per cent.

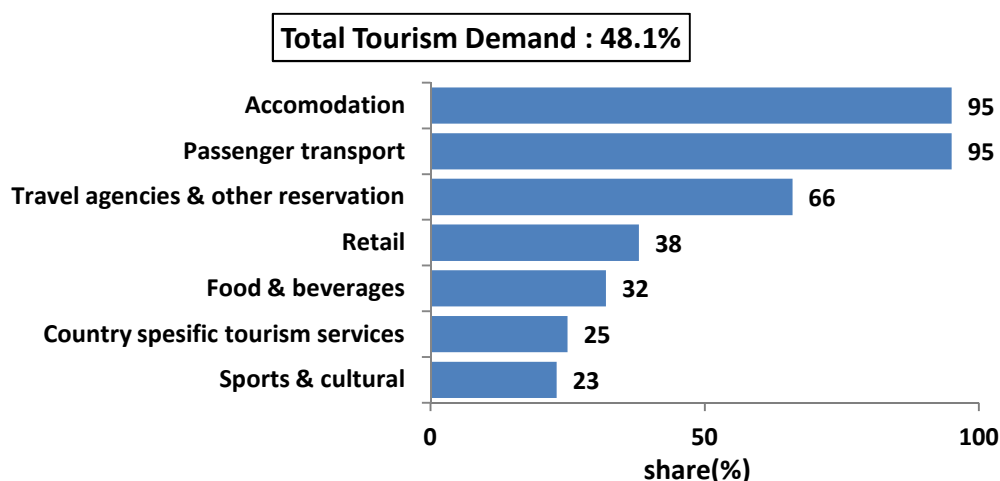
**Chart 2: Internal tourism consumption, 2005-2013**

Source : Department of Statistics, Malaysia

## 6.2 Tourism Ratio and Trend of Visitors Spending

The relationship between demand and supply of tourism related goods & services within the Malaysia economy could be observed from the TSA. Total tourism demand was RM115.3 billion accounted for 45.7 per cent of all goods and services supplied in Malaysia economy in 2013.

Tourism ratio, which provides an estimate of the proportion of each product that was consumed by visitors as compared to the supply, showed that 95.0 per cent of all accommodation services supplied were consumed by the visitors and 5.0 per cent was consumed by non-visitors in 2013. Passenger transport services also posted a tourism ratio of 0.95 in the same period. Travel agencies and other reservation services registered the second highest tourism ratio of 0.66 in 2013 as compared to 0.68 in 2012. Tourism ratio of shopping was 0.38 which represented the third highest tourism characteristic products. This indicates that their demand for shopping reached 38.0 per cent out of total supplied. Meanwhile, food and beverage serving services recorded the tourism ratio of 0.32 in 2013 (Chart III).

**Chart 3: Tourism ratio, 2013**

Source: Department of Statistics, Malaysia

The pattern of inbound visitors spending in 2013 was mostly on shopping (30.6 per cent). Accommodation services (29.3 per cent) was the second highest demanded product by inbound visitors and followed by passenger transport services (17.7 per cent). Meanwhile, domestic visitors spent most on shopping (32.9 per cent), passenger transport services (28.4 per cent) and food & beverage serving services (15.8 per cent).

### 6.3 Employment in Related Tourism Industry

The tourism industry currently employs a significant number of workers, accounting for 16.8 per cent of total employment in 2013 as against 16.4 per cent in 2012 (Table 1). The tourism industry employed 2.2 million persons in 2013 and increased of 126,900 over the same period. Tourism's share of total employment is greater than its share of gross value added (13.1 per cent). This is because tourism industry such as accommodation and restaurant employs high number employees even though these industries generate lower value added than the rest. This is in line with the growth of total employment in Malaysia registered at 3.9 per cent in 2013.

**Table 1: Employment in the tourism industry, 2012 & 2013**

	<b>2012</b>	<b>2013</b>
Total Employment (million persons)	12.7	13.2
Tourism Employment (million persons)	2.1	2.2
Percentage Tourism Employment (%)	16.4	16.8

Source: Department of Statistics, Malaysia

## 7. CONCLUSION

In conclusion, the findings show inbound tourism expenditure leads the tourism economy in Malaysia as compared to domestic tourism expenditure. Thus, continuous promotions and campaigns need to be enhanced in encouraging local residents involvement in tourism activity. The success in delivering the TSA statistics by DOSM has enabled for policy makers to have a sound measurement on tourism industry contribution to this nation. MOTAC has been using this statistics extensively in formulating and planning strategies to achieve a higher ranking in terms of tourist receipt and arrival internationally.

In compiling the TSA, secondary data are being used widely especially on the arrival and receipt data. One of the main challenges in producing the TSA statistics is on the consistencies of the excursionist and profiling of the tourist expenditure. Lots of discussions and deliberation has been done between DOSM and relevant agencies in order to produce quality statistics. Nevertheless, continuous collaboration and coordination between relevant agencies and industry players are very important to avoid duplication of work in producing TSA.

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## **Appendix 1**

Notification for equation model of demand and supply TSA;

$i = 1, 2, \dots, 7$  (tourism products/industries)

- 1 = Accommodation services
- 2 = Food and beverage serving services
- 3 = Passenger transport services+
- 4 = Travel agencies and other reservation services
- 5 = Cultural, sports and recreational services
- 6 = Country-specific tourism characteristic goods
- 7 = Country-specific tourism characteristic services