

## **Medical Tourism: The Effects of Perceived Benefits, Perceived Risks and Geographic Region**

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### **ABSTRACT**

Malaysia has been targeting health travellers as a source of foreign exchange income especially after the Asian Financial Crisis. It is crucial for medical tourism industry in Malaysia to meet the expectations of their international clients as it competes with neighbours such as Thailand and Singapore. This study assesses the antecedents of attitude influencing the behaviour intention of potential health travellers in Malaysia by examining two dimensions of perceived value, namely perceived benefits and perceived risks. Findings of the study indicated that perceived value is a key predictor of tourist behavioural intentions. A difference was observed between regions among countries of origin. The research also highlighted managerial implications for private hospitals in the areas of marketing and product development. It is recommended hospitals should pay more attention to healthcare service value based on geographic regions of origin in order to create competitive advantage.

*Keywords:* Health travellers, intention, Malaysia, medical tourism, perceived benefits, perceived risks

### **INTRODUCTION**

Medical tourism has increased in popularity in recent decades (Caballero & Mugomba, 2006) due rising interest for better healthcare

(Paffhausen, Peguero & Roche, 2010), rising medical costs in the US and European nations (Sarwar, Manaf & Omar, 2012). Additionally, strict visa regulations in the United States and Europe especially after 9/11 occurrence (Forgione & Smith, 2007) have posed difficulties for tourists to access healthcare services in the West. Hence, many nations around the world have begun to venture into medical tourism to capitalise on this (Caballero & Mugomba, 2006). Among the destinations, Thailand,

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Singapore, India and Malaysia are among the most sought after in the world. Within ASEAN, Thailand is on the top list (Picazo, 2013), while Malaysia and Singapore have been identified as among the fastest growing markets (Brinker & Ong, 2014). India has joined the bandwagon and became an attractive market for the Middle East whereby half of the former's medical tourists come from the latter region (Neelankantan, 2003). The New Straits Times reported that Malaysia is among the most famous medical tourism destinations in the world, attracting more than 790,000 health travellers in 2014, generating an income of RM730 million (Bernama, 2015).

Malaysia is ideal for regular and recurrent treatments from moderate to complex cases with high-quality treatments at competitive prices (Deloitte KassimChan, 2013). Comparing the average costs of selected medical procedures between Asian countries and the US, Patients beyond Borders estimates savings in Malaysia at 65-80%, India at 65-90% Thailand at 50-75%, and South Korea at 30-45% (Yamasaki & Fujiwara, 2015). Consequently, Malaysia's service providers have a competitive advantage due to their high standard of medical services at a reasonable cost.

Nonetheless, the hospitality industry in Asia is facing serious market competition (Smith, 2006). In order to stay aggressive, concentrating on the client's behaviour has turned out to be imperative for the success of business. As an important segment of the tourism industry, medical tourism sector must be studied to ensure it is sustainable.

There is a dearth of studies focusing on this topic especially empirical studies. Additionally, there is lack of data regarding clients' perception of favoured medical destination based on their regions of origin. In order to examine the various factors contributing towards the development of medical tourism in Malaysia, this study aims to determine health travellers' perceived intention based on their perceived value by comparing perceived benefits and perceived risks focusing on their country of origin.

### **Theoretical Background**

Theory of Planned Behaviour (Ajzen, 1991) explains the antecedents to attitudes, subjective norms and perceived behavioural control with the assumption that all these determine intentions and actions. In Ajzen's model, beliefs are considered an important prerequisite in determining an individual's behaviour. In this regard, the rational evaluation of consequences determines the attitudes towards behaviour. The present authors take a more hedonistic perspective for this study, assuming that people are moved by seeking rewards and avoiding punishments. Hence, intentions depend on the strength of the belief (i.e., perceived value) with the attitude and ability to carry out a specific behaviour (i.e., intention to visit).

Perceived value has been the focus of scholars who study tourism and who are keen on exploring and understanding the impact of various types of products and services (Petrick, 2004). Interestingly, most

of the studies explored the development of constructs for perceived value and evaluated the ability of the construct to determine visit intentions. It was shown that that perceived value can predict travellers' intention to visit. Thus, perceived value may be considered as an assessment of risks and benefits (Kotler, 2003). When health travellers have to make a decision, they usually decide by comparing the difference between the risks and benefits incurred. If the benefits are greater than the risks, there will be an indication of "perceived favourable," which may lead to a positive travelling decision. In line with this interpretation, perceived value is a context-specific construct consisting of perceived benefits and perceived risks that may drive travellers' attitudes and behaviours. Perceived Benefits can be defined as the acceptance of personal vulnerability to conditions also believed to be important when held to produce a force leading to behaviour. There are two main categories of perceived benefits: direct and indirect. Direct advantages refer to immediate and tangible benefits that client's experience. Indirect advantages refer to those benefits that are less tangible and hard to quantify by clients. Whereas the perceived risks can be described as the degree of potential loss due to unfavourable outcomes of the act and the individual's sense of certainty that the consequences will not be favourable (Dholakia, 2001). It refers to the size of a potential loss to the international travellers' (Dholakia, 2001). The higher the expectation, the greater the size and severity of potential loss.

### **Perceived Benefits on Attitude**

Perceived benefit is a potential antecedent of attitude towards certain behaviour (Forsythe, Liu, Shannon & Gardner, 2006). Studies have indicated that an individual is more concerned about perceived risk than benefits towards attitude (Bhatnagar & Ghose, 2004a; 2004b). The most appropriate measurement for perceived benefits in medical tourism is product quality (Kerin, Jain & Howard, 1992). This includes financial savings, convenience, quality of medical service, and hospitality products (Han & Hwang, 2013). According to Wang (2012), product quality can be divided into three components: perceived service quality, perceived medical quality, and perceived enjoyment. Scholars have pointed to the motives behind the desire to buy products and services: functional (extrinsic) needs, and non-functional (intrinsic) wants. Functional factors associated with emotional or psychological components such as enjoyment are especially critical to the service industry (Lin, Sher & Shih, 2005). Similarly, several studies have confirmed that a positive emotional state has a significant influence on a client's value perception (Lin et al., 2005). Thus, following hypothesis is proposed:

*H1: Perceived benefits exert significant positive effect on attitudes.*

### **Perceived Risks on Attitude**

Attitude can be shaped by both perceived risks and benefits and that determines intention (Ajzen, 1985, 1988). The

negative relationship between perceived risks and attitude was conceptualised by (Jurison, 1998). Low-risk perception and/or high benefit perception towards an object accelerate the attitudinal orientation of a client and his/her behaviour (Jarvenpaa, Tractinsky, & Vitale, 2000). There are empirical studies on the linkage between risk/benefit perception and attitude. Huang (1993) concluded that perceived risks toward pesticide uses significantly affect consumer attitudes. Further, it is confirmed that low-risk perception related to online purchases affects consumers' favourable attitude toward the Internet store (Jarvenpaa et al., 2000). Therefore, this study hypothesised that perceived risk shape health travellers' attitudes towards medical tourism. Thus, this study proposed the following second hypothesis:

*H2: Perceived risks exert significant negative effect on attitudes.*

### **Attitude on Intention**

Attitude is a learnt behaviour and a function of the client's perception and assessment of the key attributes or beliefs towards a specific object (Schiffman & Kanuk, 1997). Attitudes are fundamental to the theory of consumer decision-making (Newholm & Shaw, 2007), as traditional theory of understandings on attitude conclude that attitudes predict behaviour (Ajzen & Fishbein, 2000). Nevertheless, contemporary social psychological research on attitudes questions this as context may change such as how subjects are framed or if they are in affective states (Ajzen & Fishbein,

2000). This challenges the predictive and explanatory power of the Theory of Planned Behaviour, which is premised on attitudes towards a behaviour together with subjective norms and perceived behavioural control, leading to comparable intention (Ajzen, 1991). This dilemma is important in relation to the reported gap between attitude and behaviour in controlling behaviour (Newholm & Shaw, 2007). Many studies on travel behaviour rely, to a large degree, on attitude construct. Hence, this study aims to contribute to a better understanding of attitude and intention of medical tourists as affective elements which would be useful for human behaviour modelling. Hence, the following third hypothesis is proposed:

*H3: Attitudes exert significant positive effect on intention to visit.*

### **Moderating Effects on Geographic Regions**

The top ten home-countries for medical tourists to Malaysia in 2011 are Indonesia, India, Japan, United Kingdom, China and Hong Kong, US, Australia, Iran, Libya, and Nepal (Suleiman, 2013). Indonesia has contributed a major market for Malaysia's medical tourism owing to the emerging Indonesian middle class who wish to get their medical treatment abroad. Health travellers from Indonesian are comfortable to obtain healthcare service in Malaysia mainly because of the combination of common language, foods, religions and the ease of travel distance. The differences of religions between host countries and travellers do not only affect the interactions, but also

influence the very presence of hospitality in a region (Kirillovaa, Gilmetdinovab, & Lehtoc, 2014). Looking at the opportunity of attracting global Muslim consumer base is estimated at 1.7 billion in 2015 (Central Intelligence Agency, 2016). Consequently, Malaysia is keen in opening up a larger Muslim market share through provision of halal treatments. Hence, based on the above discussion, geographic regions of origin may have a positive influence on behaviour intention and this subsequently may positively affect attitude. Hence, the following hypothesis is proposed:

*H4: Geographic regions of origin tourists exert positive influence on attitudes towards intention to visit.*

**Proposed Conceptual Framework**

Based on literature review, a conceptual framework as below was developed to show the relationship between perceived value (perceived benefits and perceived risks) as independent variable and behaviour intention as dependent variable with geographic regions of origin as moderator (see Figure 1).

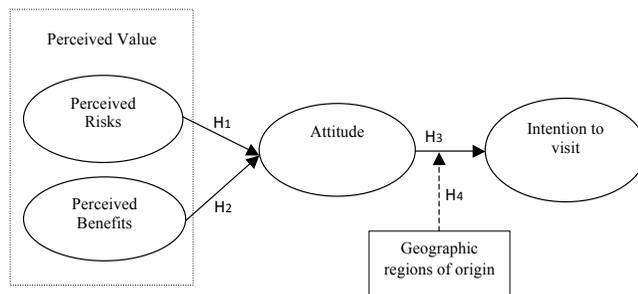


Figure 1. Proposed research framework for this study

**METHODS**

Structured questionnaire was used to collect data. The first part covers perceived risks and benefits of medical tourism as well as respondent’s attitude and behavioural intention. The 13 items were used to measure the perceived benefits while 19 items measured perceived risk factors, 4 items on attitude and 5 items on behavioural intention. The questions were aimed at understanding respondents’ future participation intention. The second part of the survey was on the respondents’

demographic profile. A 5-point Likert scale was used to measure the responses (‘1 as ‘strongly disagree’ and 5 as ‘strongly agree’). Data was analysed using SPSS 20.0. Frequencies were calculated and reliability analysis was conducted to examine the internal consistency among the items. Data were tested using multiple regression analysis for hypothesis testing to identify which of the perceived benefits and risks affect attitude and tourists’ participation intention. The respondents were 400 random international tourists who arrived

at Kuala Lumpur International Airports (KLIA). Questionnaires were administered using quota sampling equal samples were collected from each area. After eliminating unusable sample, 385 valid questionnaires were used for final analysis.

**Profile of Respondents and Reliability Analysis**

Table 1 shows that most of the respondents were male. The largest group of respondents were aged 21-30. Majority of the respondents had an undergraduate degree. The largest group of tourists is from Asia.

Table 1  
*Demographic profile*

Demographic Profile	Categories	Frequencies	Percentage (%)
Gender	Male	238	61.8
	Female	147	38.2
Education Level	Without any Degree	132	34.3
	Bachelor’s Degree	161	41.8
	Master’s Degree	55	14.3
	Doctorate Degree	37	9.6
Age Group	17 and Below	1	0.3
	18 to 20	23	6.0
	21 to 30	163	42.3
	31 to 40	119	30.9
	41 to 50	41	10.7
	51 to 60	22	5.8
	More than 60	11	3.0
Regions	Africa	25	6.6
	Asia	194	51.1
	Europe	94	24.7
	Middle East	10	1.3
	Oceania	30	7.9
	The Americas	32	8.4

**Regression and Univariate Analysis Reporting**

Previous studies have shown that perceived risks are basic variables but yet critical factors that influence tourist attitudes. The respondents were asked about perceived risks and their attitudes as well as perceived benefits and attitude. Based on the results, the most important perceived risk is that it

is “not in line with social status”. Therefore, higher perceived risk shows lower intention. Likewise, results also indicated the most important medical tourism perceived benefits is “competent doctors”. Therefore, the higher perceived benefit shows higher intention. Both factors: perceived benefits and perceived risks are significantly related to attitude (Table 2) whereby the R<sup>2</sup> value is

0.313. Regression analysis was also carried out between attitude and participation intention whereby it shows that the R<sup>2</sup> value is 0.438, which indicates that almost 43.8% of variance in participation intention can be

explained by attitude. The F-test provides statistical significance F (295.095), p, 0.000. Therefore, higher attitude shows higher intention.

Table 2  
*Regression result*

Hypothesis	Relationship	Beta	T-value	Sig. (p-value)	Result
1	Perceived Risk → Attitude	0.382	7.441	0.000	Supported
2	Perceived Benefit → Attitude	-0.248	-4.839	0.000	Supported
3	Attitude → Intention	0.662	17.178	0.000	Supported

Participation intention as the dependent variable, attitude as the independent variables, and country region of origin as the moderator were used for univariate analysis. This study found geographic region of origin among respondents as playing an important role. D Therefore, Malaysia should strengthen socio-cultural ties with Commonwealth countries such as UK, Australia and New Zealand that are united by language, history, culture and their shared values to tap into their markets. It ought to focus on other potential markets among Regional Comprehensive Economic Partnership (RCEP) nations, for example, China and India, and potential markets among Trans-Pacific Partnership (TPP) nations, for example, USA and Japan as well as the ASEAN Economic Community (AEC) which can be potential markets, such as Vietnam, Laos, Cambodia, and Myanmar. With the rise of Halal tourism and recognition of Malaysia as an Islamic nation (Chaynee, 2003; Henderson, 2003),

medical travellers from West Asia could be a source of business.

**RESULTS AND DISCUSSION**

In view of the results, all null hypotheses are rejected and all hypotheses H1, H2, H3, and H4 can be supported. First, it was found that the perceived risk factors had an impact on attitude. In other words, perceived risks were found leading to reduced attitude towards participation intention, consistent with the findings of (Jurison, 1998). Second, it was found that perceived benefits, especially perceived medical quality, would likely influence potential health travellers’ attitude towards participation intention. The findings are supported by Lloyd (2005), Bies and Zacharia (2007) and Connell (2006). Furthermore, perceived risk has stronger relationship with intention than perceived benefit with intention. Third, it was found that attitude had a significant impact on participation intention. This is confirmed by Ajzen and Fishbein (2000). Finally, of the

tourists' attributes, it was discovered that the geographical region of origin influenced their behaviour intention. Moreover, attitude explains 31.5% of the variance ( $R^2$ ) in the participation intention, which is moderate. Overall, the results indicated that geographic region of origin influences participation intention of the potential health travellers. It can be inferred that medical tourism in Malaysia encouraged by its good quality healthcare which influences tourist attitude, while, the role of geographic region of origin in terms of participation intention is important.

The government should consider improvements in the respective areas: Medical professionals, hospital, the Ministry of Health and the Ministry of Tourism should work together effectively and must carefully consider perceived risks which are highlighted in this study to promote medical tourism. Private hospitals and healthcare centres in Malaysia could use these findings to improve their own weaknesses and update their knowledge and standards as well as upgrading their equipment and facilities. They can integrate their own marketing strategies and public relation efforts to achieve their primary objective. It was clear that tourists got their information mostly from the internet. Hence, it would be more productive for the hospitals and healthcare centres management to use the web to market their products and services. Findings showed that returning travellers based their revisit intentions from past experience and whereby almost 60% of tourists usually trust and follow their relatives, family and friends in travelling.

### **Limitations and Future Research**

The current research has few limitations. The first, the perceived risks is based on personal characteristics; there may be high perceivers and low perceivers. Be that as it may, the present study did not include these personal characteristics. Hence, it is proposed that personal characteristics of travellers should be examined in future studies. Second, the common method bias is normal in most research. Therefore, further research will need to include some analysis to assess the common method bias in the respective study, for instance, Harman Single Factor Analysis.

It is recommended that future research targets health travellers based on their country of residence so as to provide better and in-depth results which would be useful for hospitals and healthcare centre management as well as for the Ministry of Health, Malaysia.

### **CONCLUSION**

The main aim of this study was to explore the impacts of medical tourists' perceived risks on their participation intention. The current research also studied perceived benefits and risks factors that influence health travellers' selection of destination. It also aimed to find which of the two, perceived risks or perceived benefits, exerted more influence on attitude towards participation intention. The study shed light on perceived risks and perceived benefits, attitude and future participation intention for medical care in Malaysia. Findings of the study highlighted that medical tourism in

Malaysia has a good potential and enormous opportunity to increase revenue. It also showed that ‘geographic region of origin’ of potential health travellers influences attitude on participation intention. The study found that tourists from West Asia showed the highest participation intention and Malaysia remains an attractive and reputable medical tourism destination.

## REFERENCES

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action-control: From cognition to behavior*. Heidelberg: Springer.
- Ajzen, I. (1988). *Attitudes, personality, and behaviour*. Chicago: Dorsey.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Ajzen, I., & Fishbein, M. (2000). Attitudes and the attitude-behaviour relation: Reasoned and automatic processes. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology*, 11, 1-33. Chichester, UK: Wiley.
- Bernama (2015, May 24). KPJ Healthcare eyes RM90m health tourism revenue in 2015. *New Straits Times*. Retrieved from <http://www.nst.com.my/news/2015/09/kpj-healthcare-eyes-rm90m-health-tourism-revenue-2015>
- Bhatnagar, A., & Ghose, S. (2004a). A latent class segmentation analysis of e-shoppers. *Journal of Business Research*, 57(7), 748-767.
- Bhatnagar, A., & Ghose, S. (2004b). Segmenting consumers based on the benefits and risks of internet shopping. *Journal of Business Research*, 57(12), 1352-1360.
- Bies, W., & Zacharia, L. (2007). Medical tourism: Outsourcing surgery. *Mathematical and Computer Modelling*, 46(7), 1144-1159.
- Brinker, B. & Ong, Q. Y. (2014, May 5). IHH Healthcare: A Global Name in Medical Tourism. Shares Investment. Retrieved from: <http://www.sharesinv.com/articles/2014/05/05/ihh-healthcare-a-global-name-in-medical-tourism-part-1/>
- Caballero-Danell, S., & Mugomba, C. (2006). *Medical Tourism and its entrepreneurial opportunities: A conceptual framework for entry into the industry*. [Master Thesis, Göteborg University, School of Business, Economics and Law]. Retrieved from <https://gupea.ub.gu.se/handle/2077/4671>
- Central Intelligence Agency (CIA). (2016, July 26). *The World Factbook*. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/geos/xx.html>
- Chaynee, W. (2003). *Health tourism to drive earnings*. Kuala Lumpur: Malaysian Institute of Economic Research.
- Connell, J. (2006). Medical tourism: Sea, sun, sand and... surgery. *Tourism Management*, 27(6), 1093-1100.
- Deloitte, K. (2013). Kuala Lumpur, Malaysia Southeast Asia’s rising star: An investor’s guide. Retrieved from [http://www.investkl.gov.my/assets/multimediaMS/file/149297Kuala\\_Lumpur\\_Malaysia\\_Southeast\\_Asia\\_Rising\\_Star.PDF](http://www.investkl.gov.my/assets/multimediaMS/file/149297Kuala_Lumpur_Malaysia_Southeast_Asia_Rising_Star.PDF)
- Dholakia, U. M. (2001). A motivational process model of product involvement and consumer risk perception. *European Journal of Marketing*, 35(11), 1340-1362.
- Forgione, D. A., & Smith, P. C. (2007). Medical Tourism and Its Impact on the US Healthcare System. *Journal of Healthcare Finance*, 34(1), 27–35.
- Forsythe, S., Liu, C., Shannon, D., & Gardner, L. C. (2006). Development of a scale to measure the perceived benefits and risk of online shopping. *Journal of Interactive Marketing*, 20(2), 55-75.

- Han, H., & Hwang, J. (2013). Multi-dimensions of the perceived benefits in a medical hotel and their roles in international travelers' decision-making process. *International Journal of Hospitality Management*, 35, 100-108.
- Henderson, J. C. (2003). Managing tourism and Islam in Peninsular Malaysia. *Tourism Management*, 24, 447-456.
- Huang, C. L. (1993). Simultaneous-equation model for estimating consumer risk perceptions, attitudes, and willingness-to-pay for residue-free produce. *The Journal of Consumer Affairs, Madison*, 27(2), 377-388.
- Jarvenpaa, S., Tractinsky, N., & Vitale, M. (2000). Consumer trust in an internet store. *Information Technology and Management*, 1(1), 45-71.
- Jurison, J. (1998). The Role of Risk and Return in Information Technology Outsourcing Decisions. *Journal of Information Technology*, 10, 239-247.
- Kerin, R. A., Jain, A., & Howard, D. J. (1992). Store shopping experience and consumer price-quality-value perceptions. *Journal of Retailing*, 68(4), 376-397.
- Kirillovaa, K., Gilmetdinovab, A., & Lehtoc, X. (2014). Interpretation of hospitality across religions. *International Journal of Hospitality Management*, 43, 23-34.
- Kotler, P. (2003). *Marketing management*. (11<sup>th</sup> ed.). New Jersey: Pearson Education Inc.
- Lin, C. H., Sher, P. J., & Shih, H. Y. (2005). Past progress and future directions in conceptualizing customer perceived value. *International Journal of Service Industry Management*, 16(4), 318-336.
- Lloyd, S. (2005). Young, smart and hard to find. *Business Review Weekly*, 29, 60.
- Neelakantan, S. (2003), India's Global Ambitions. *Far East Economic Review*, 166, 52-54.
- Newholm, T., & Shaw, D. (2007). Studying the ethical consumer: A review of research. *Journal of Consumer Behaviour*, 6(5), 253-270.
- Paffhausen, A. L., Peguero, C., & Roche-Villarreal, L. (2010). *Medical tourism: a survey*. United Nations Economic Commission for Latin America and the Caribbean, Washington, D.C.
- Petrick, J. F. (2004). The roles of quality, value and satisfaction in predicting cruise passengers' behavioural intentions. *Journal of Travel Research*, 42(4), 397-407.
- Picazo, O. (2013). *Medical Tourism in the Philippines: Market Profile, Benchmarking Exercise and S.W.O.T. Analysis*. Makati: PIDS.
- Sarwar, A. A. M., Manaf, N. H. A., & Omar, A. (2012). Medical Tourist's Perception in Selecting their Destination: A Global Perspective. *Iranian J Publ Health*, 41(8), 1-7.
- Schiffman, R. G., & Kanuk, L. L. (1983). *Consumer behavior* (2<sup>nd</sup> ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Smith, G. H. (2006). *The globalization of health care: Can medical tourism reduce health care costs?* Hearing Publications, Washington, DC.
- Suleiman, A. B. (2013). Medical Tourism – Malaysia. In *Regional World Health Summit Asia 2013*. Singapore. Retrieved from [https://d1wjxwc5zmlmv4.cloudfront.net/fileadmin/downloads/2013/WHSRMA\\_2013/Presentations/Day\\_2/Abu%20Bakar%20Suleiman%20-%20Medical%20Tourism%20-%20Malaysia.pdf](https://d1wjxwc5zmlmv4.cloudfront.net/fileadmin/downloads/2013/WHSRMA_2013/Presentations/Day_2/Abu%20Bakar%20Suleiman%20-%20Medical%20Tourism%20-%20Malaysia.pdf)
- Wang, H. Y. (2012). Value as a medical tourism driver. *Managing Service Quality*, 22(5), 465-491.
- Yamasaki, D. & Fujiwara, T. (2015, February 26). Asia leads a medical tourism industry worth billions. *Nikkei Asian Review*. Retrieved from <http://asia.nikkei.com/magazine/20150226-Medicine-in-transit/On-the-Cover/Asia-leads-a-medical-tourism-industry-worth-billions>