

**EDUCATIONAL TOURISM IN MALAYSIA:
ITS DETERMINANTS AND THE RELEVANCE
TO ECONOMIC GROWTH**

by

HYLMEE BIN MATAHIR

**Thesis submitted in fulfilment of the requirements
for the degree of
Doctor of Philosophy**

April 2019

ACKNOWLEDGEMENT

Alhamdulillah. Praise be to Allah for granting me the wisdom and patience to complete this thesis successfully. However, without the direct and indirect encouragement, assistance and support of many individuals during the course of this Ph.D exercise, this study would not have seen the light of day. To that end, I extend my sincere appreciations and heartfelt thanks to my supervisor, Dr. Tang Chor Foon, who devoted countless hours and energy in guiding me throughout my Ph.D. journey. Indeed, the training and guidance he provided me would stand in me in good stead for the rest of my career.

I would like to take this opportunity to thank UiTM's management, especially UiTM Sabah branch for allowing me to pursue my post graduate studies, as well as the Ministry of Higher Education Malaysia for granting me the financial assistance to pursue this doctorate. In addition, I would like to thank the administrative staff at the Center for Policy Research and International Studies (CenPRIS), especially Pn. Zuraida Che Amin, Pn. Nurulaein, Pn. Aniza Daud for the assistance they rendered me during my time at CenPRIS, and to the academic staff, especially Associate Professor Dr. Reevany and Dr. Tan Yao Sua for sharing their thoughts and ideas during the early stages of my proposal writing, and to Dr. Chan Tze Haw and Associate Professor Dr. Goh Soo Khoo for the kind comments they provided during my research progress presentation sessions. I would also like to thank the Ministry of Higher Education for assisting me in obtaining the relevant data, and the Deputy Director of the Tourism Package Development Division, MOTAC, Mr. Hishamuddin Mustafa for graciously spending his time with me in a series of convivial and insightful discussions about the edu-tourism programme in

Malaysia. Next, my sincere appreciations are due to my fellow comrades, Dr. Jasman Tuyon, Dr. Khairul Anwar, Dr. Fahmi Ghazali, Siti Hajar, Intan Soliha, Charlie Albert, as well as my colleagues at CenPRIS: Dr. Tan Bee Wah, Dina Mirza, Moh. Muzzakkir. I pray that all of you will always be successful and blessed in both your career and life.

My deepest gratitude goes to my mother and my siblings who were unstinting in providing me with the moral support necessary to complete my studies. Yet I feel saddened at not being able to share my happiness with my late father and my late mother-in-law who passed away while I was in the midst of completing this thesis.

Last but not least, to my wife, A'esyah Abd Rahman, for always providing me her love and emotional support that helped me through many a difficult moment. Her uncomplaining nature in taking care of my three lovely kids; Hazel Eryna, Adam Hairyl, and Ariff Adrian will forever be appreciated. *Sayang*, I cannot go back to the past to make up for the time and space I have stolen from you all. However, from now on, I will try to fill your time and space with the happiness and joy that you all so richly deserve.

TABLE OF CONTENTS

ACKNOWLEDGEMENT	ii
TABLE OF CONTENTS	iv
LIST OF TABLES	vii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	xi
ABSTRAK	xii
ABSTRACT	xiv

CHAPTER 1 – INTRODUCTION

1.1 Global Tourism: A Background	1
1.2 Tourism in Malaysia	5
1.3 Educational Tourism in Malaysia	9
1.4 Higher Education Institutions in Malaysia	12
1.5 Problem Statement	15
1.6 Objectives of the Research	19
1.7 The Significance of the Research	19
1.8 Structure of the Thesis	22

CHAPTER 2 – LITERATURE REVIEW

2.1 Introduction	23
2.2 The Concept of Educational Tourism	23
2.3 Review of Past Studies on the Tourism-Growth Relationship	30
2.3.1 Technical Review: Past Tourism-Growth Studies	30
2.3.2 Review of Tourism-Growth Studies: A Global Perspective	43
2.3.3 Review of Tourism-Growth Studies: A Malaysian Perspective	51
2.3.4 Review of Past Educational Tourism-Growth Studies	52
2.4 Review of Past Studies on Tourism Demand	53
2.4.1 Technical Review: Past Tourism Demand Studies	62
2.4.2 Review of Determinants of Tourism Demand: A Global Perspective	65
2.4.3 Review of Determinants of Tourism Demand: A Malaysian Perspective	68
2.4.4 Review of Determinants of Educational Tourism Demand	70
2.5 Conclusion	74

CHAPTER 3 – THE INFLUENCE OF EDUCATIONAL TOURISM ON ECONOMIC GROWTH IN MALAYSIA

3.1	Introduction	75
3.2	Theoretical Background and Methodology	80
3.2.1	Theoretical Framework: The Neoclassical Solow Growth Model	80
3.2.2	Data	85
3.2.3	Econometric Techniques	87
3.2.3(a)	Unit Root Test	87
3.2.3(b)	Cointegration Test	91
3.2.3(c)	Granger Causality Test	94
3.3	Empirical Results and Discussions	95
3.3.1	Unit Root Results	95
3.3.2	Cointegration Results	99
3.3.3	Granger Causality and Generalised Variance Decomposition	103
3.3.3(a)	Granger Causality Results	103
3.3.3(b)	Generalised Variance Decomposition Results	105
3.4	Conclusion	107

CHAPTER 4 – THE IMPACT OF EDUCATIONAL TOURISM ON THE SOURCES OF ECONOMIC GROWTH IN MALAYSIA

4.1	Introduction	109
4.2	Theoretical Background and Methodology	112
4.2.1	The Kaleckian Theoretical Model	113
4.2.1(a)	Educational Tourism	118
4.2.1(b)	Capital Accumulation	119
4.2.1(c)	Capacity Utilisation	120
4.2.1(d)	Export of Goods	121
4.2.1(e)	Profit Share	122
4.2.1(f)	Labour Productivity	123
4.2.1(g)	Unemployment	124
4.2.2	Data	125
4.2.3	Econometric Techniques	126
4.2.3(a)	Unit Root Test	127
4.2.3(b)	Johansen and Juselius (1990) Cointegration Technique	127
4.2.3(c)	Structural VAR	130
4.3	Empirical Results and Discussion	133
4.3.1	Unit Root Results	133
4.3.2	Cointegration Results	137
4.3.3	Structural VAR Estimation Results	139
4.4	Conclusion	146

CHAPTER 5 – THE DEMAND BEHAVIOUR OF EDUCATIONAL TOURISM IN MALAYSIA: A MICRO-ECONOMETRIC ANALYSIS

5.1	Introduction	148
5.2	Theoretical Background and Methodology	151
5.2.1	The Theory of Consumer Behaviour	151
5.2.1(a)	Preferences and Utility	151
5.2.1(b)	Budget Constraints and Consumer Equilibrium	156
5.2.1(c)	The Marshallian Demand Function	158
5.2.2	Model Specifications	162
5.2.3	Data	168
5.2.4	Econometric Techniques	170
5.3	Empirical Results and Discussion	173
5.4	Conclusion	181

CHAPTER 6 – CONCLUSION AND POLICY RECOMMENDATIONS

6.1	Summary of the Research	183
6.2	Policy Recommendations	187
6.3	Limitations and Suggestions for Future Research	194

REFERENCES	196
-------------------	------------

APPENDICES

LIST OF PUBLICATIONS

LIST OF TABLES

		Page
Table 1.1	Tourist Arrivals by Region, 2000 to 2017	7
Table 1.2	Public Universities Based on Category and Characteristics	13
Table 1.3	Total Number of Private HEIs in Malaysia	15
Table 2.1	Compilation of Tourism-Led Growth Studies	33
Table 2.2	Selection of Data Frequency	40
Table 2.3	Selection of Tourism Indicators	43
Table 2.4	Compilation of Studies on Tourism Demand	54
Table 2.5	Frequency of Methodology	65
Table 2.6	Summary of Studies on Tourism Demand in Malaysia	69
Table 3.1	Summary of Variables and Data Sources	86
Table 3.2	Results of the ADF and the KPSS Unit Root Tests	96
Table 3.3	Results of the Clemente, Montañés, and Reyes (1998) Unit Root Test	97
Table 3.4	Results of the Bayer and Hanck (2013) Combined Cointegration Test	99
Table 3.5	Long-run and Short-run Results for Malaysian Economic Growth	101
Table 3.6	Results of the Granger Causality Analysis	104
Table 3.7	Generalised Variance Decomposition for lnGDP	107
Table 4.1	Summary of Variables and Data Sources	126
Table 4.2	Results of ADF and KPSS Unit Root Tests	134
Table 4.3	Results of Clemente et al. (1998) Unit Root Test	135
Table 4.4	Results of Johansen-Juselius Cointegration Test	139

Table 4.5	Matrix Structure of Contemporaneous Impact	140
Table 5.1	Summary of Variables and Data Sources	169
Table 5.2	Summary of Descriptive Statistics	174
Table 5.3	Results of Dynamic Panel System GMM Estimation	176

LIST OF FIGURES

	Page
Figure 1.1 International Tourist Arrivals and Receipts for 2018	3
Figure 1.2 Percentage of International Student Mobility for 2000 and 2017	4
Figure 1.3 Total International Student Enrolment in Malaysia	10
Figure 1.4 International Student Enrolment in Malaysia for 2015 Based on Origin Countries	11
Figure 2.1 Conceptualising Educational Tourism	26
Figure 2.2 Conceptual Framework of the Combined Influences of Study, Tourism, and General Destination Image on Study and Travel Decisions	29
Figure 2.3 Model Selection in the Study of Tourism-led Growth	41
Figure 2.4 Selection of Data Frequency	62
Figure 2.5 Selection of Dependent Variable	63
Figure 4.1 Wage-led Growth or Stagnationist Regime under Bhaduri-Marglin's Version of Kaleckian Model	116
Figure 4.2 Profit-led Growth or Exhilarationist Regime under Bhaduri-Marglin's Version of Kaleckian Model	117
Figure 4.3 Plots for the Inverse Root of Stability Condition	138
Figure 4.4(a) Response of Capital Accumulation to a Shock in Educational Tourism	144
Figure 4.4(b) Response of Capacity Utilisation to a Shock in Educational Tourism	144
Figure 4.4(c) Response of Export of Goods to a Shock in Educational Tourism	145
Figure 4.4(d) Response of Profit Share to a Shock in Educational Tourism	145
Figure 4.4(e) Response of Labour Productivity to a Shock in Educational Tourism	145
Figure 4.4(f) Response of Unemployment Rate to a Shock in Educational Tourism	145

Figure 5.1	Indifferent Curve	154
Figure 5.2	Individual's Equilibrium	157

LIST OF ABBREVIATIONS

ADF	Augmented Dickey-Fuller
AIC	Akaike Information Criteria
AO	Additive Outlier
AR	Autoregressive
ASEAN	Association of South East Asian Countries
BDM	Banerjee, Dolado, and Mestre
BO	Boswijk
CLRM	Classical Linear Regression Model
DOSM	Department of Statistic, Malaysia
ECM	Error-Correction Model
ECT	Error-Correction Term
EG	Engle-Granger
EPU	Economic Planning Unit
FMOLS	Fully Modified Ordinary Least Square
GDP	Gross Domestic Product
GMM	Generalised Method of Moments
HEIs	Higher Education Institutions
IMF	International Monetary Funds
IO	Innovative Outlier
JOH	Johansen
KPSS	Kwiatkowski-Phillips-Schmidt-Shin
LM	Lagrange Multiplier
LR	Likelihood Ratio
MOHE	Ministry of Higher Education
MOTAC	Ministry of Tourism and Cultures
MRS	Marginal Rate of Substitution
MU	Marginal Utility
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Square
PEMANDU	Performance, Management, and Delivery Unit
SIC	Schwarz Information Criterion
SVAR	Structural Vector Autoregression
TLG	Tourism-Led Growth
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNWTO	United Nations World Travel Organization
VAR	Vector Autoregression
WTTC	World Travel and Tourism Council

PELANCONGAN PENDIDIKAN DI MALAYSIA: PENENTU-PENENTU DAN KAITANNYA DENGAN PERTUMBUHAN EKONOMI

ABSTRAK

Kajian ini cuba mengkaji kerelevanan pelancongan pendidikan di Malaysia berhubung sumbangannya kepada ekonomi dan bagaimana penentu-penentu utama mempengaruhi permintaan terhadap pelancongan pendidikan. Perlu diperhatikan bahawa pelancongan pendidikan semakin meningkat sebagai sub-sektor pelancongan penting sejak awal alaf baru. Malah, potensinya sebagai sub-sektor pelancongan baru muncul sudah menjadi bukti pada penghujung abad ke-20. Walau bagaimanapun, peranan dan sifat sumbangan pelancongan pendidikan kepada ekonomi Malaysia kurang mendapat perhatian oleh para penyelidik. Oleh demikian, kajian ini cuba mengisi lompong ini dengan menggunakan beberapa teknik parametrik dan bukan parametrik bagi menentukan kerelevenan pelancongan pendidikan kepada ekonomi Malaysia. Kajian ini dijalankan berasaskan tiga objektif. Objektif pertama ialah mengkaji kesan pelancongan pendidikan terhadap pertumbuhan ekonomi dengan menggunakan penambahan model pertumbuhan Solow. Kami menggunakan satu set metodologi ekonometrik data siri masa seperti teknik penggabungan kointegrasi dan analisis sebab-penyebab Granger untuk menentukan kesan pelancongan pendidikan terhadap pertumbuhan ekonomi dalam jangka masa panjang. Dapatan menunjukkan bahawa pelancongan pendidikan adalah penyebab-Granger kepada pertumbuhan ekonomi. Objektif kedua kajian ini ialah untuk meneroka saluran-saluran di mana pelancongan pendidikan mempengaruhi pamacu utama pertumbuhan ekonomi dengan menggunakan model Kaleckian. Pemodelan Struktur VAR (SVAR) digunakan untuk mengetahui bagaimana kejutan dalam pelancongan pendidikan

memberi impak pertumbuhan dalam jangka pendek. Dapatan SVAR menunjukkan bahawa kesan pelancongan pendidikan terhadap pertumbuhan ekonomi adalah melalui produktiviti buruh dan penggunaan kapasiti. Selari dengan dapatan objektif pertama kajian ini, Malaysia dapat memanfaatkan subsektor pelancongan pendidikan dalam memupuk pertumbuhan ekonominya. Di samping itu, kedudukan Malaysia sebagai pusat pendidikan serantau seperti dijangkakan dalam beberapa Rancangan Malaysia adalah langkah yang perlu diambil sebagai strategi berdaya maju untuk manfaat ekonomi. Seterusnya, objektif ketiga ialah, dengan menggunakan panel dinamik GMM, kajian ini bertujuan untuk menentukan penentu utama permintaan pelancongan pendidikan. Dapatan penting ialah reputasi akademik, diukur melalui faktor buah mulut, adalah faktor utama mendorong pelancong pendidikan ke Malaysia, sementara keupayaan ekonomi negara asal dan kualiti pendidikan tinggi di Malaysia juga adalah faktor yang harus diberi perhatian. Secara umumnya, penemuan-penemuan dalam kajian ini memberikan maklumat penting kepada pemerintah serta pembuat dasar dalam membantu mereka merangka dasar serta inisiatif yang sesuai supaya pembangunan serta sumbangan segment pelancongan pendidikan di Malaysia ini dapat ditingkatkan.

EDUCATIONAL TOURISM IN MALAYSIA: ITS DETERMINANTS AND THE RELEVANCE TO ECONOMIC GROWTH

ABSTRACT

This research tries to examine the relevance of educational tourism in Malaysia in relation to its contribution to the economy and how key determinants influence the demand for educational tourism. It is noteworthy that educational tourism has increasingly gained prominence as a vital tourism sub-sector since the dawn of the new millennium. In fact, its potential as an emerging tourism sub-sector was already in evidence at the tail-end of the 20th century. However, the role and nature of educational tourism's contribution to the Malaysian economy has not been widely investigated by researchers. Thus, this research attempts to fill this lacuna by utilising a series of parametric and non-parametric techniques to determine educational tourism's relevance to the Malaysian economy. The research is premised on three objectives. The first objective is to investigate the impact of educational tourism on economic growth by using an augmented version of the Solow growth model. We employ a set of time series econometric methodologies such as combined cointegration technique and the Granger causality analysis to determine educational tourism's impact on economic growth in the long-run. The results indicate that educational tourism Granger-causes economic growth in the long-run. The second objective of this research involved using an extended Kaleckian model to explore the channels by which educational tourism influences the key drivers of economic growth. A Structural VAR (SVAR) modelling was applied to the model to learn how shocks in educational tourism impacts growth in the short-run. The SVAR results demonstrate that the impact of educational tourism on economic growth is through

labour productivity and capacity utilisation. In line with the results from the previous objective of the study, Malaysia can leverage upon the educational tourism subsector to foster economic growth. In addition, the positioning of Malaysia as a regional education hub as envisaged in several Malaysia Plans is a measure that should be pursued as a viable strategy which will yield economic benefits. The third objective of this study uses a dynamic panel GMM estimator to establish the key determinants of educational tourism demand. The findings from the estimator highlight that academic reputation, measured by the word-of-mouth effect, is the main factor that drives educational tourists to Malaysia, followed by the economic capacity of the source country and the quality of Malaysian higher education. These findings provide important information to the government and policy makers that could assist them in formulating appropriate policy initiatives that could further enhance the development of educational tourism segment in Malaysia.

CHAPTER 1

INTRODUCTION

1.1 Global Tourism: A Background

Globalisation has reduced the isolation of a country by transforming a country's relationship with other countries particularly in the movement of goods and services as well as human resource that have consequently improved national wealth and income distribution. From the tourism industry's perspective, the impact of globalisation is seen from the movement of international travellers across boundaries with fewer restrictions. Consequently, travel related activities have created an important source of income to the global economy.

The tourism industry has been intensely scrutinised by both economists and policy makers, regarding its role as an engine of economic development. The World Travel and Tourism Council (WTTC, 2018) noted that the tourism industry accounted for 10.4 per cent of global output and created 313 million job or 9.9 per cent of total employment in 2017. Although political instability, economic slowdown, outbreak of infectious diseases, and natural disasters have negatively impacted the industry's growth intermittently, the total number of tourists have grown exponentially.

Basically, two indicators are often used by a country or the UNWTO to assess the performance of the tourism industry, namely international tourist arrivals and tourism receipts. International tourist arrivals refer to the arrivals of persons to a country

while tourism receipts measure the expenditure of international tourists or visitors during their stay in the host country. In 2017, global international tourist arrivals increased by 7 per cent while tourism receipts recorded an increase of approximately 5 per cent (UNTWO, 2018). With the strong growth of international travel, it is projected that the industry would maintain a 3.3 per cent annual growth between 2010 and 2030.

Travel patterns amongst tourists are generally discernible via their preferred destinations. Figure 1.1 illustrates the breakdown of tourist arrivals and tourism receipts by region. Europe was the most visited region in 2017, receiving 672 million tourists who generated USD 519 billion in tourism receipts. Next was Asia and the Pacific region with arrivals totalling 323 million tourists and revenue amounting to USD 390 billion. The Americas received 211 million tourist arrivals and earned about USD 326 billion in revenue. Finally, despite a severe outbreak of Ebola and political unrests in certain countries, Africa and the Middle East still managed to attract 63 million and 58 million tourists respectively with receipts amounting to USD 37 billion and USD 68 billion, respectively.

One of the reasons for foreign travel is for the purpose of formal education, either for short-term courses or full-time degree programmes. The Organisation for Economic Co-operation and Development (OECD, 2012) in its report stated that total number of students studying abroad has increased by 300 per cent to 4.5 million in 2012 from 1.1 million in 1980 with the flow of students skewed towards the more advanced economies.

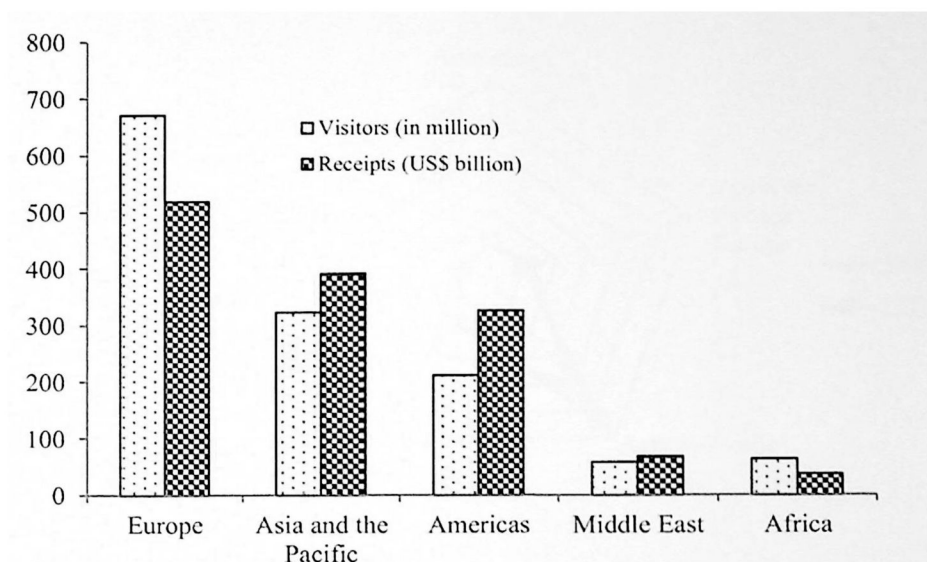


Figure 1.1: International Tourist Arrivals and Receipts for 2018

Source: UNWTO (2018) Annual Report

Figure 1.2 shows the percentage of international student mobility across regions in 2000 and 2017 as captured by UNESCO. In general, it is evident that the trend in international students mobility has increasingly converged to the Asia and Pacific region in 2017 compared to that in 2000 in line with the emergence of new players in the education industry especially in East Asia and the Pacific rim countries, with Australia, China, South Korea, Singapore and Malaysia being the major beneficiaries (UNESCO, 2013). In fact, these regions have chalked a significant increase in international student arrivals recording an acceptance rate of 52.7 per cent in 2017, compared to 38.7 per cent in 2000.

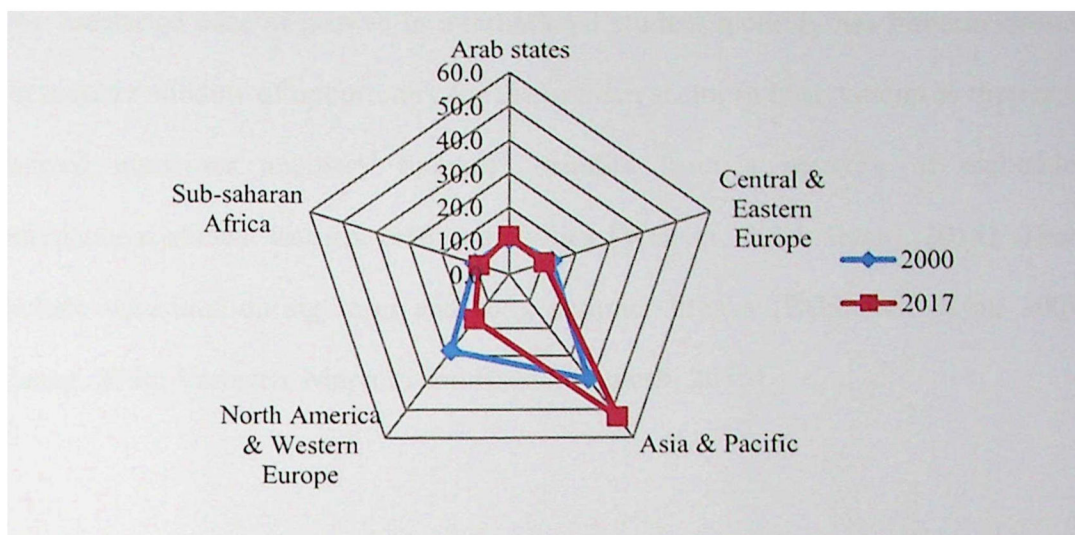


Figure 1.2: Percentage of International Student Mobility for 2000 and 2017

Source: <http://data.uis.unesco.org>

Conversely, significant reductions in student acceptance were observed in both the North America and Western Europe regions with the number of international students going to both regions decreasing to 17 per cent in 2017, compared to 28 per cent in 2000. A similar trend was also observable in the Sub-Saharan Africa region where international student arrivals declined from 10.2 per cent in 2000 to 8.8 per cent in 2017 as well as in Central and Eastern Europe which recorded a decrease from 12.7 per cent in 2000 to 10.8 per cent in 2017. In contrast, a slight increase had been recorded in the Middle East region where arrivals increased to 11.2 per cent in 2017 compared to 10.4 per cent for 2000.

The accelerated pace of growth in international student mobility has hitherto opened yet another window of opportunity for the tourism sector in host nations as they have derived numerous ancillary financial benefits from a network of embedded international student tourism related activities (Weaver, 2004; Bento, 2014). These include vacations during term and long summer breaks (Babin and Kim, 2001; Huang, 2008; Varasteh, Marzuki and Rasoolimanesh, 2015).

However, it should be cautioned that attractive tourism destinations are not the sole catalyst for attracting international students to host nations as a variety of interrelated factors play a crucial in drawing in international students.

1.2 Tourism in Malaysia

Since the 1970s, the Malaysian tourism industry has experienced tremendous growth and thus has been a key focus area that has received significant attention under the various Malaysia Plans. As of 2014, the tourism sector is the sixth largest contributor to the Malaysian economy (PEMANDU, 2015).

Tourism Malaysia data reveal that international tourist arrivals increased by 5.5 per cent from 25 million in 2010 to 26 million in 2017 generating RM82 billion in revenue. The phenomenal growth rate in revenue of 45 per cent between 2010 and

2017¹ consequently engendered multiplier effects in other tourism-related businesses. For example, as reported by the WTTC, the direct contribution of tourism related industries was RM65.7 billion to country's GDP of which a substantial portion was attributable to tourism sub-industries such as hotels, travel agents, and transportation services. Additionally, a 5.3 per cent growth in total employment totaling 1,704,500 employees was recorded in the tourism sector in the same year (WTTC, 2018).

The increased tourist arrivals is largely attributable to the continuous promotional activities conducted by the Ministry of Tourism, Arts and Culture Malaysia (MOTAC) under Tourism Malaysia. These include a series of Visit Malaysia Year (VMY) campaigns (i.e. 1990, 1994, 2007, and 2014), promoting the "Malaysia, Truly Asia", the Malaysia My Second Home (MM2H) programme, and the announcement of the Year of Festivals 2015 which cumulatively highlight the significant role played by MOTAC in promoting tourism in Malaysia. Apart from that, several major sport events also have been organised by the government. For example, the Commonwealth Games 1998, the Malaysia Grand Prix from 1999 to 2017, golf tournaments, cycling events like the Le Tour de Langkawi, and professional tennis tournaments like, the Malaysia Open have all foregrounded Malaysia as a premier tourist destination.

Despite its impressive growth rate, the tourism industry has also been exposed to a series of internal and external shocks at the start of the new millennium. These

¹ Tourism Malaysia, formerly known as Tourist Development Corporation of Malaysia, is an agency under the Ministry of Tourism and Culture Malaysia. Its specific task is to promote Malaysia's tourism products domestically and internationally.

include the September 11 terrorists attack in 2001, the US-Iraq war in 2003 as well as the outbreak of the Severe Acute Respiratory Syndrome (SARS) epidemic also in 2003. These shocks contributed to a slowdown in tourist arrivals particularly from long-haul tourist markets. In order to reduce the ensuing economic impact, strategies in attracting international tourists were realigned to focus on the burgeoning Asian travel market in order to attract tourists from China, India, the Middle East and the ASEAN community (Tourism Malaysia, 2001).²

Table 1.1: Tourist Arrivals by Region, 2000 to 2017

Year	Asia	Americas	Europe	Oceania	Africa
2000	8,682,189	307,692	581,599	267,626	74,314
2002	11,577,959	283,216	631,230	254,174	148,102
2004	14,091,878	271,917	534,179	266,231	140,995
2006	15,681,176	312,478	673,118	355,467	163,024
2008	19,527,778	345,217	1,010,860	486,775	143,356
2010	22,212,975	353,383	1,147,995	646,847	26,395
2012	22,558,550	327,065	1,043,309	573,674	23,635
2014	24,808,382	356,923	1,202,429	638,776	51,951
2016	24,715,722	295,710	986,961	431,079	50,284
2017	23,966,645	265,259	987,273	407,155	45,320

Source: Ministry of Tourism and Culture, Malaysia

As summarised in Table 1.1, visitors from the Asian region constitute the most important source of international visitors with the number of tourists from this region charting a steady annual increase from 2000 to 2017. According to Malaysia's Performance, Management and Delivery Unit (PEMANDU), member states of the ASEAN community, primarily Singapore, Indonesia and Thailand, are significant contributors to Malaysia's tourism industry with total number of visitors recorded in

² ASEAN stands for the Association of Southeast Asian Nations. Currently the ASEAN comprise of Malaysia, Indonesia, Thailand, the Philippines, Singapore, Brunei, Cambodia, Vietnam, Laos and Myanmar.

2017 being 12 million, 3 million and 1.8 million visitors respectively. Beyond ASEAN, China provided the highest number of visitors of approximately 1.6 million. With respect to other regions, Europe remains the second major contributor of tourist arrivals followed by Oceania and America. Conversely, the arrivals of visitors from the African region have decreased dramatically since 2010.

International tourist arrivals to Malaysia can be classified according to their purpose of travel. Among the most popular travel purposes is for leisure activities. This is corroborated by a survey conducted by Tourism Malaysia in 2014 which showed that vacation purposes accounted for 54.1 per cent of all tourism arrivals in 2013. It was followed by visitors who came to Malaysia to participate in conventions and conferences that is, 51 per cent. Additionally, about 14 per cent of total tourist arrivals in 2013 cited visiting friends and relatives (VFR) as their purpose while 12 per cent of all arrivals cited business purposes as the reason for their visit. New types of tourism products, for instance medical and educational tourism also attracted visitors Malaysia. However, only 0.3 per cent out of total international arrivals visited Malaysia for educational purposes.

Although visitors coming to Malaysia for education purposes is relatively small, educational tourism has been identified as an important segment in the tourism industry as outlined in the 9th Malaysia Plan (9MP) which projected that RM900 million would be accruable from educational tourism by 2010. In fact, the Mid-Term Review of the 9MP documented that the government had already surpassed this target as RM1.4 billion was derived from 92,000 international students in Malaysia

by 2007 (EPU, 2007). Given that there is an increasing trend of people travelling for education across the globe and Malaysia's professed aim to be an education hub, the prospects of the educational tourism sector in Malaysia remains immense.

1.3 Educational Tourism in Malaysia

As part of its aim to emerge as a hub for education, concomitant policy changes in the Malaysian higher education sector has been emphasised. Among these include provisions allowing private entities to establish their own higher education institutions (HEIs). With respect to the public HEIs, several higher education strategic plans with specific targets have been tabled since 2007. For example, 10 per cent of total enrolment should be allotted to foreign students of which 5 per cent should be studying in competitive courses. Such a move signals the government's commitment to liberalise the Malaysian HEI sector in order to accord more places for international students (Tham, 2013).

These policy initiatives have resulted in a dramatic upsurge in the inflow of international students, especially to private HEIs. Figure 1.3 illustrates that enrolment of international students in Malaysia has increased steadily from 2002 to 2010 with a preponderance of enrolment in private HEIs. For instance, in 2002, out of the total 27,872 foreign students enrolled, about 82 per cent of them were registered with private HEIs while only 5,045 or 18 per cent were enrolled in public HEIs. This figure continued to rise steadily until 2010 where 62,709 and 24,214 enrolled in private and public HEIs, respectively. In that year, the increase in international

students in private HEIs was 175 per cent higher when compared to the figure in 2002. Similarly, international students enrolled in public HEIs also increased dramatically, i.e. 380 per cent as compared to the figure in 2002. Although there was a small decrease in total enrolment in 2012, the overall trend continued to surge upwards as evident in 2016 wherein up to 36 per cent or 102,112 of all international students were enrolled in private HEIs with a small drop in enrolment in public HEIs to about 6 per cent from 2014, i.e. recorded 30,958 international students in 2016.

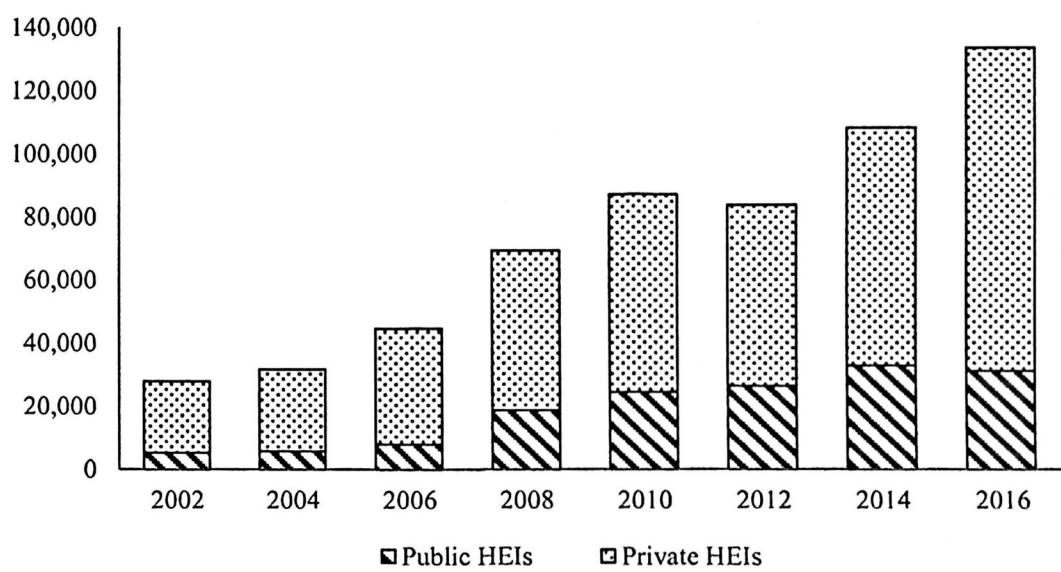


Figure 1.3: Total International Student Enrolment in Malaysia

Source: Ministry of Education, Malaysia

With regard to source countries, the Ministry of Education (MOE) in 2015 (Figure 1.4) noted that the majority of international students were from Bangladesh (30,829), followed by Nigeria (12,947) and China (10,775). Among ASEAN countries, Indonesia constituted the key source of international students to Malaysia in 2015

due to its physical proximity as well as cultural and religious affinities. With respect to the West Asian region, Yemen and Iran are important sources of international students to Malaysia.

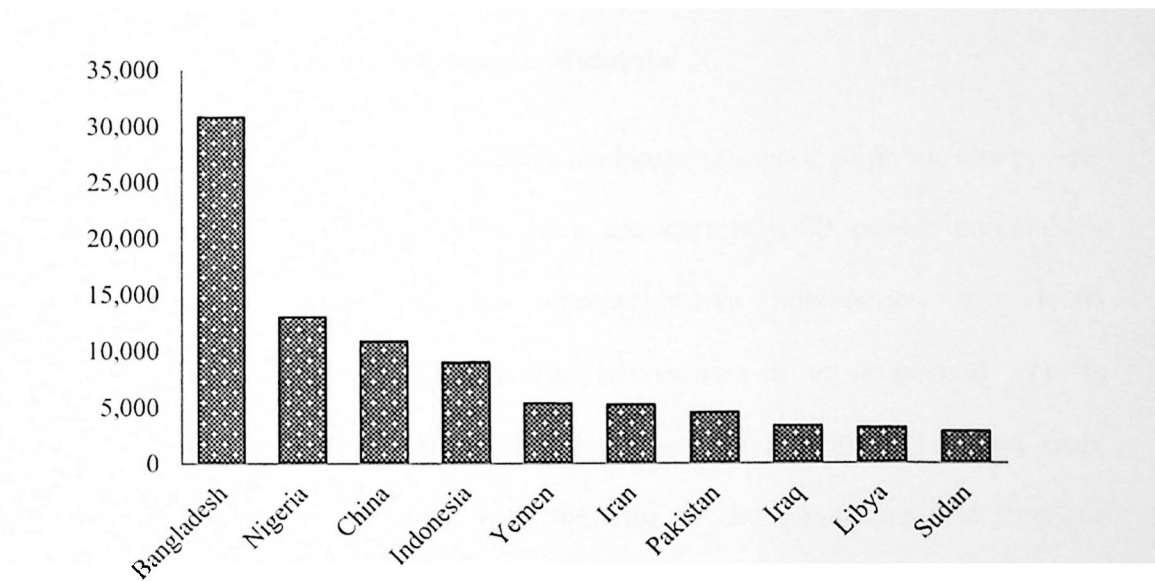


Figure 1.4: International Student Enrolment in Malaysia for 2015 Based on Origin Countries

Source: Ministry of Education, Malaysia

The aforementioned data indicates that the present numbers of international students in Malaysia is still relatively small compared to other types of tourists. As such, there is a need to further attract international students to enhance their contribution to educational tourism segment. In order to stimulate the educational tourism segment, policies at both the MOTC and MOE need to be reconfigured. This is because though MOTAC has played a key role in assisting the MOE to promote educational tourism, curriculum design and education facilities are under the purview of the latter. As such, the MOE has a vital role to play in attracting international students which it can

realise through a set of innovative policy formulations that incentivise HEIs to attract foreign students besides serving as a pull factor in attracting international student inflows.

1.4 Higher Education Institutions in Malaysia

In general, the Malaysian tertiary education landscape comprise of public and private HEIs. With respect to public HEIs, there are currently 20 public universities categorised as research universities, comprehensive universities, and focus universities. This categorisation of public universities is an important step in nurturing excellence in research and commercialisation activities (Tan and Goh, 2015) as well as consanguineous with the aim of the government to emplace Malaysia as a centre of educational excellence by 2020. The categories and the characteristics of public HEIs are as illustrated in Table 1.2.

In general public HEIs have been perennially confronted with the problem of providing tertiary education accessibility in an environment where demand exceeds supply. This is mainly attributable to the fact that the number of applicants, both local and international, seeking to enrol into the public HEIs often exceed the number of places available. This space constraint is further compounded by that fact that the government sanctioned affirmative action programme mandates the reservation of a certain number of places for qualified students who are recipients of government scholarships (Tham, 2013) thus further reducing the number of places available in public HEIs.

Category	Name of Institutions	Characteristics
Research universities	Universiti Malaya (UM)	- Field of study: Focus on research - Competitive entries - Quality lecturers - Ratio of undergraduates to postgraduates is 50:50
	Universiti Sains Malaysia (USM)	
	Universiti Kebangsaan Malaysia (UKM)	
	Universiti Putra Malaysia (UPM)	
	Universiti Teknologi Malaysia (UTM)	
Comprehensive universities	Universiti Teknologi MARA (UiTM)	- Various field of study - Competitive entries - Quality lecturers - Ratio of undergraduates to postgraduates is 30:70
	Universiti Islam Antarabangsa Malaysia (UIAM)	
	Universiti Malaysia Sarawak (UNIMAS)	
	Universiti Malaysia Sabah (UMS)	
Focussed universities	Universiti Utara Malaysia (UUM)	- Field of study: Focus on research - Competitive entries - Quality lecturers - Ratio of undergraduates to postgraduates is 50:50
	Universiti Pendidikan Sultan Idris (UPSI)	
	Universiti Tun Hussein Onn Malaysia (UTHM)	
	Universiti Teknikal Malaysia Melaka (UTeM)	
	Universiti Malaysia Perlis (UniMAP)	
	Universiti Malaysia Terengganu (UMT)	
	Universiti Malaysia Pahang (UMP)	
	Universiti Sains Islam Malaysia (USIM)	
	Universiti Sultan Zainal Abidin (UniSZA)	
	Universiti Malaysia Kelantan (UMK)	
	Universiti Pertahanan Nasional Malaysia (UPNM)	

Source: Ministry of Education, Malaysia

With limited places being offered by public universities, competition among local applicants to enter public universities has become increasingly difficult. Consequently, some parents have resorted to sending their children abroad for

tertiary education. However this approach has in turn generated a negative externality in the form of foreign exchange outflows that negatively impact the local currency and by implication the competitiveness of the Malaysian economy. Thus, the establishment of private HEIs is needed to not only absorb excessive demand for tertiary education but also to mitigate the effects of forex outflows, but it also has the policies and economic reasons to expand the supply of the HEIs (Tham, 2013).

The accelerated establishment of private HEIs in Malaysia is pursuant to the enactment of the Private Higher Education Institutions Act in 1996. Since then, there has been a rapid expansion in the number of private HEIs, especially those who have been accorded university status. Table 1.3 shows the total number of the private HEIs in Malaysia from 1998 to 2018. Overall, 457 private HEIs were in existence in 2018 compared to 583 recorded in 1998. This reduction in numbers is attributable to both industry related attrition and the overall reduction in the number of private colleges. Conversely, the number of private HEIs accorded university college or university status have increased every year. In addition, a number of foreign institutions have set up their branch campuses in Malaysia (Tham, 2013). These institutions are from Australia (i.e. Monash University Malaysia, Curtin University of Technology, Swinburne University of Technology), the United Kingdom (i.e. Newcastle University Medicine Malaysia, University of Nottingham, University of Southampton, University of Reading, Heriot-Watt University) and one university from China (i.e. Xiamen University).

From the foregoing, it is obvious that the educational tourism segment has the potential to be a key player in the growth of the tourism sector in Malaysia. Nevertheless, several issues need to be addressed in order to fully optimise the potential contribution of educational tourism to both the tourism sector and the overall economy.

Table 1.3: Total Number of Private HEIs in Malaysia

Year	University status	University College status	International universities' branch campus	College	Total
1998	5	0	1	577	583
2000	7	0	3	691	642
2002	11	1	4	518	534
2004	11	10	5	533	559
2006	13	15	5	482	514
2008	18	18	4	491	531
2010	23	21	5	403	452
2012	37	21	5	415	468
2014	41	34	9	409	493
2018	53	38	10	356	457

Source: Ministry of Higher Education, Department of Statistic

1.5 Problem Statement

Education plays an important role in the development of a country as it nurtures talent and quality human capital, two vital ingredients that foster economic growth and development. In the light of this, the demand for better education from both industry and society has led to a significant increase in international students' mobility globally, as students from less developed countries seek quality education in the more advanced economies. The phenomenal growth of the sector has been attested to by UNESCO (2013) which noted that the quantum of international

students' mobility increased by 230 per cent from 1990 to 2011. The mobility of international students is believed to benefit the host country, not only through knowledge transfer, but also via its contributions to the economy by virtue of educational tourism being an important sub-sector of the tourism industry.

In the context of Malaysia, educational tourism can be leveraged by the government to derive additional sources of income. Realising this potential, Malaysia has taken several efforts to capitalise on it. These include the establishment of Education Malaysia international offices in selected countries and the development of Educities and Eduparks in Malaysia.

Despite its latent potential, the contribution of the educational tourism segment to the Malaysian economy is largely unquantified. In fact, according to a survey by Tourism Malaysia (2013), travel for educational purposes accounted for only a small percentage, i.e., approximately 0.3 per cent, of total tourist arrivals. In addition, the higher education market has long been dominated by developed countries in Western Europe and North America who have long established themselves as providers of quality education. This scenario poses seemingly insurmountable challenges to the growth of the educational tourism sector in Malaysia.

Data from MOE reveal that international students enrolled in Malaysia's HEIs are mostly from middle- and low-income countries that have low spending power.³ Consequently, these constraints the government's ability to derive maximal financial returns, either directly or indirectly, for the local economy (Payne, 2009). On the other hand, the presence of international students may also create negative socio-economic externalities. For instance, international students have been reported to have committed breaches of immigration law as well as criminal activities such as drug trafficking and murder (Sidang Dewan Negara, 2014). It has even been postulated that educational tourism can be a potential conduit for subversive activities such as terrorism which could threaten national security (BERNAMA, 2016; Allen, 2015; Maher, 2015).

Given the foregoing, the relevance of educational tourism as a viable source of economic growth as well as a conduit for economic growth remains largely nebulous. In fact, no empirical research can be cited to attest that educational tourism contributes positively to the Malaysian economy given that many previous studies used aggregated tourism data as input. This may result in aggregation bias and thus conceivably jeopardise both tourism policy formulation and their effective implementation (Tang, 2011). Moreover, Aslan (2016) in stressing that not all sub-segments of tourism contribute to long-term economic growth is by default implying that there is a need to determine whether educational tourism actually contributes to economic growth.

³ Statistic regarding total enrolment of international student in Malaysia can be extracted at <http://jpt.mohe.gov.my>

Hence, there are valid grounds to examine whether and how educational tourism impacts economic growth. Apart from that, the government's aim to attract 250,000 international students' enrolment by the year 2025 is now facing stiff competition from other emerging higher education providers (e.g. Singapore and South Korea) who also aspire to be education hubs in the Asian region. If these challenges are ignored, Malaysia runs the risk of failing to achieve the targeted number of international student enrolment as well as the aim to establish herself as a major education hub and thus jeopardise her goal of deriving maximum economic benefit from the educational tourism sector.

The prevailing scenario as outlined above raises several interesting questions pertaining to the role of the educational tourism segment in Malaysia. They include whether educational tourism can be a new and reliable source of growth for Malaysia. Additionally, other questions relate to how and through what channel(s) does educational tourism influence the key drivers of economic growth and the initiatives required to sustain Malaysia's competitiveness in attracting international students and expanding its educational tourism segment.

1.6 Objectives of the Research

The general objective of this research is to examine the relevance of educational tourism to the Malaysian economy. Accordingly, the specific objectives of the research are as follows:

- i. To investigate the impact of educational tourism on economic growth in Malaysia by utilising an augmented neoclassical Solow growth model.
- ii. To explore the channels of educational tourism on the key sources of economic growth in Malaysia by extending the Kaleckian macroeconomic model.
- iii. To identify and analyse the influence of major determinants on the demand for inbound educational tourism in Malaysia.

1.7 The Significance of the Research

The tourism-growth relationship has been extensively examined given that many countries rely on tourism as a source of income. As countries embark on tourism promotion initiatives, there is a need for niche tourism products that would foreground a country's uniqueness as a tourism destination in efforts to differentiate it from the competition. This approach of product segmentation has already manifested itself via several tourism products such as medical tourism, eco-tourism, culture tourism and other novel tourism products. Therefore, it is only logical that a tourism-reliant economy like Malaysia formulates specific strategies to enhance her appeal as a tourism destination by foregrounding new tourism niche products such as educational tourism.

The significance of examining educational tourism in the context of Malaysia is due to several reasons. Firstly, educational tourism has increasingly gained prominence as a vital tourism sub-sector since the dawn of the new millennium. In fact, its potential as an emerging tourism sub-sector was already in evidence at the tail-end of the 20th century (Gibson, 1998). Secondly, as stated in the 9th Malaysia Plan, Malaysia perceives educational tourism as an important source of income. Consequently, drawing a greater number of international students to Malaysia would help augment economic growth through demand creation via expenditure on goods and services. Furthermore, given conventional tourists' short period of stay of, educational tourism provides a more stable and long-term source of revenue since most of international students need to stay a minimum of one year for a full-time study programme.

The present study aims to contribute to the body of knowledge regarding the contribution of educational tourism to the Malaysian economy by adopting a number of methodologies in order to derive a more holistic picture about the current status and future prospects of educational tourism in Malaysia and thus provide policy makers with the requisite empirically validated inputs to formulate targeted policy initiatives that will further cement the sector as a niche tourism product.

As part of its empirically driven approach to evaluate the current impact and future potential of educational tourism to the Malaysian economy, the current study adopts a dual pronged approach. Firstly, the study seeks to examine the contribution of educational tourism to economic growth both in the short- and long-run by utilising

an augmented neoclassical Solow growth model. This is in acknowledgement of the fact that the Solow growth model is one of the most important models in macroeconomic research (Olsson, 2012) which has been deployed in tourism related research (e.g. Tang and Tan, 2013; Proença and Soukiazis, 2008; Seetanah, 2011). Secondly, the study extends the Kaleckian model to identify channels of educational tourism that serve as potential pass-throughs to economic growth. These include capacity utilisation and capital accumulation that can influence economic growth in the long-run. Understanding the overall pass-through mechanisms influenced by educational tourism, i.e. direct influence or through variations, and their consequent impacts on economic growth will provide new insights towards understanding the educational tourism and growth relationship within a dynamic macroeconomic system.

Apart from the above, this research is timely given growing global international student mobility and the intense competition exerted by other regional players in attracting international students. For example, Singapore has initiated policies to be an education hub in the region while Qatar has been aggressively expanding its role to be major player in the provision of quality of higher education. Thus, the current study tries to explore the key factors that drive international students to choose Malaysia as their education destination. A demand model which consists of economic and non-economic factors will be analysed. The output of this study will provide important information to policymakers that could assist them in terms of designing effective policy initiatives for the development of the educational tourism sector. Moreover, the findings would also serve as relevant input to assist

government agencies to formulate the requisite measures to enhance education quality, facility and safety that collectively play an integral part in shaping demand for educational tourism. It is envisaged that these policy responses will enhance Malaysia's position as an important destination for educational tourism which will ultimately cement the sector's status as an important source of growth in the Malaysian economic landscape.

1.8 Structure of the Thesis

This thesis contains of six chapters. In Chapter 1, an overview of the research including the background, the problem, the objectives and the significance of the research is provided. Chapter 2 delineates the literature review related to tourism-growth and tourism demand. Chapter 3 examines the role of educational tourism in Malaysia's economic growth using time-series econometrics techniques within the Solow growth framework while Chapter 4 presents the analysis of the influence of educational tourism on key economic variables utilising the Kaleckian model. Chapter 5 provides an analysis of the determinants of educational tourism demand in Malaysia using the dynamic panel data technique while Chapter 6 provides a summary of the findings, policy recommendations and a brief delineation of both the limitations of this study as well as outline possible trajectories of future research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter consists of three main sections. Section 2.2 discusses the concept of educational tourism. In the subsequent sections, the research reviews existing studies on tourism and its influence on economic growth and the determinants of tourism demand.

2.2 The Concept of Educational Tourism

Historically, ancient travel for education and learning was recorded as far back as the 17th century in the Europe. During this era, travel was undertaken to foreign communities in order to explore and learn about cultures in these communities. These journeys – known as Grand Tours – were initially undertaken by groups of young and wealthy aristocrats and gradually expanded to encompass other social classes. This expansion of the Grand Tour involved several phases as the areas visited expanded in scope. Hence reconnoitring small portions of the continent soon expanded into a continent-wide exercise as the pursuit of knowledge particularly scientific knowledge became pervasive throughout communities across Europe.

Today, travel for education has been become a ubiquitous feature of contemporary life as individual seeks globally recognised qualifications and quality education from renowned higher education institutions (HEIs) in advanced countries, an endeavour

which is then leveraged upon by their native countries, particularly those in the Third World, to build a nascent technological and expertise base necessary for economic and social development. Given, that these travellers mimic the travel behaviours and undergo experiences similar in nature to actual tourists, it would not be amiss to classify them as educational tourists despite their professed aim of seeking only education (Mazzarol and Soutar, 2002; Huang, 2008). In fact, Mazzarol and Soutar (2002) contend that the acquisition of formal educational abroad serves as a conduit for these itinerants to learn about the Western world, much in the same way their peers did in Medieval and post-Enlightenment Europe.

Ritchie (2006) in conceptualising the term 'educational tourism' framed the concept on two essential premises namely, education and tourism (Figure 2.1). He further postulated that these elements were subject to external forces such as globalisation as well as evolving socio-politico, economic and technological dynamics that synergised these two circles to form a mutually symbiotic dyadic that facilitated the emergence of educational tourism.

Figure 2.1 highlights how changing dynamics in globalisation impacted the nature of tourism and education. From the tourism angle, these dynamics trigger an increase need for 'active' vacations, a new form of tourism that combines leisure and exploration. This new form of tourism is a constantly evolving paradigm as awareness regarding the importance of knowledge or learning during their tourism activities compels tourists to seek more enlightened and educative forms of touristic experiences that are reflective of their better education and environmental awareness