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Faculty of Economics and Business

Event Tourism Demand in Malaysia

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**Master of Science
2018**

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Sally Ann Yap Yu Ing

A thesis submitted

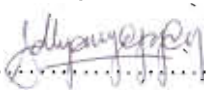
In fulfilment of the requirements for the degree of Master of Science

(Tourism Economics)

Faculty of Economics and Business
UNIVERSITI MALAYSIA SARAWAK
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DECLARATION

I hereby declare that this research is the result of my investigation, except where otherwise stated. All sources of data or information utilized in this research are acknowledged and a list of references is appended. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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ABSTRACT

This thesis attempts to empirically investigate the relationships of event tourism demand in Malaysia during the period of 1991Q1 to 2016Q4. The Autoregressive Distributed Lag technique is used to find the long-run cointegration relationships of the model. The model was further tested by employing diagnostic tests (Normality test, Serial Autocorrelation, Heteroscedasticity and Ramsey's RESET test) and stability tests (CUSUM and CUSUM square). The empirical analysis of the bounds test indicated the existence of a long-run cointegration among event tourism demand and the explanatory variables. Beyond this finding, the ARDL model produced reliable results as all of the estimated coefficients of the independent variables were statistically significant with the expected sign. Therefore, the stability tests showed that the CUSUM and CUSUM square stayed within the critical bound representing the stability of event tourism demand in Malaysia. These findings are consistent with the economic theory and the implications are identified based on the empirical findings. Hence, it is crucial to examine the long-run relationship of event tourism demand as tourism event policy will be used as a guide for all tourism development, tourism-related products, tourism operations and tourism management to achieve the Malaysian Government's immediate and long-term objectives for tourism until the year 2030 and the governmental agenda for sustainable tourism and development.

Keywords: Event Tourism, ARDL, Malaysia

Permintaan Pelancongan Acara di Malaysia

ABSTRAK

Tesis ini mencuba untuk menyiasat hubungan permintaan acara pelancongan secara empirikal di Malaysia dalam tempoh 1991Q1 hingga 2016Q4. Teknik Autoregressive Distributed Lag digunakan untuk mencari hubungan kointegrasi jangka panjang model. Model ini adalah ujian selanjutnya dengan menggunakan ujian diagnostik (Normality, Autocorrelation Serial, Heteroscedsticity dan RESET Ramsey) dan ujian kestabilan (CUSUM dan CUSUM square). Analisis empirikal ujian ARDL menunjukkan bahawa terdapat kointegrasi jangka panjang antara permintaan acara pelancongan dan pekali pemboleh ubah. Di samping itu, model ARDL menghasilkan keputusan kerana semua pekali pemboleh ubah yang dianggarkan secara statistik adalah signifikan dengan keputusan yang diharapkan. Oleh itu, ujian kestabilan menunjukkan bahawa CUSUM dan CUSUM square tetap berada dalam batas kritikal yang mewakili kestabilan permintaan acara pelancongan di Malaysia. Hasil kajian ini selaras dengan teori ekonomi dan implikasi yang dikenal pasti berdasarkan penemuan empirikal. Oleh itu, adalah penting untuk mengkaji hubungan jangka panjang permintaan pelancongan yang akan digunakan sebagai panduan untuk semua pembangunan pelancongan, produk berkaitan pelancongan, operasi pelancongan dan pengurusan pelancogan untuk mencapai matlamat dan jangka panjang Kerajaan Malaysia untuk pelancongan menjelang tahun 2030 dan agenda kerajaan untuk pelancongan dan pembangunan yang mampan.

Kata kunci: *Pelancongan Acara, ARDL, Malaysia*

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LIST OF ABBREVIATIONS

ADF	Augmented Dickey-Fuller Test
AIC	Akaike Information Centre
ARCH	Autoregressive Conditional Heteroscedasticity
ARDL	Autoregressive Distributed Lag
CUSUM	Cumulative Sum
CUSUMSQ	Cumulative Sum Square
CGE	Computable General Modelling
CPI	Consumer Price Index
ECM	Error-Correction Model
GDP	Growth Domestic Product
I-O	Input-Output Analysis
OECD	Organisation for Economic Corporation and Development
PP	Phillip Perron Test
RESET	Ramsey Regression Equation Specification Error Test
SARIMA	Seasonal Autoregressive Integrated Moving Average Model
UK	United Kingdom
USA	United State of America

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter begins with the background of this study which emphasise issues related to the project's research area. The first part of the background of this study includes the general clarification of tourism and event tourism in Malaysia. This is followed by the research questions and objectives of the study associated with the questions posed by this study. This section states the contribution of this study to academicians, the government and industry. Lastly, this chapter also includes the structure and flow of this study.

1.2 Background of Tourism in Malaysia

Prior to the 1970s, economic prosperity based on the agricultural sector was the backbone of the Malaysian economy. This prominent economic sector led to Malaysia's historic economic growth and also acted as major contributors to the nation's income and export earnings. Soon after independence in 1957, Malaysia shifted its economic focus to industrialisation as its key driver of economic growth. This structural change in the Malaysian economy has caused a decline in the reliance on agricultural sector due to an increase in diversifying the economy. According to Othman and Jafari (2014), the share of the agricultural sector to Malaysia's GDP shrank pronouncedly from 30 percent in the 1970s to only 7 percent in 2013. Meanwhile, Malaysia's tourism sector has a great services sectors, but, the roles of tourism growth in the earlier years were considered as non-growth oriented. According to Li et al., (2013), tourism was stimulated in the mid-1970s as Malaysia's

Based on Figure 1.1, the number of tourist arrivals and tourist receipts in Malaysia showed an increasing trend from 1991 to 2016. Tourism become a significant catalyst for Malaysia's economic growth sector and in promoting growth, it helps to create jobs and to generate revenue for the Malaysian government. This simultaneously has encouraged the Malaysian authorities to establish tourism as one of the key industries aimed at stimulating Malaysia's economic growth in the long term. According to Tang and Tan (2015), the Tenth Malaysia Plan over the period of 2011 to 2015 acknowledged that the tourism sector was one of the National Key Economic Areas (NKEAs) which had a predicted potential to generate high income for the nation by 2020.

Among the components of the tourism industry, events are a special and unique form of tourist attraction (Yusof et al., 2015; Ayob & Wahid, 2016). With the addition of new festivals and special occasions that have recently been developed by the Malaysian authorities, in part through efforts by both the government and private sectors, these event tourism attractions have become an additional product to attract tourists into Malaysia (Ayob, 2003; Yusof et al., 2015). Yusof et al., (2015) indicated that event tourism in Malaysia has turned out to be popular amongst Malaysians. Generally, the cumulative growth of Malaysian festivals and special events is due to economic benefits, a more relaxing routine and enhancing media coverage within Malaysia.

1.3 Event Tourism in Malaysia

Tourist industry have started to develop new ideas for tourism products and activities, such as new festivals and planned events, in an attempt to attract and increase tourist arrivals. Certainly, local and unique festivals and special events provide excellent added value to the

tourism sector and often become major contributors in increasing the appeal of tourism destinations around the world (Hernandez-Mogollon, Folgado-Fernandez, & Duarte, 2014). Malaysia too has highlighted special events as a tourist attraction capable of generating travel demand and satisfying tourists (Ayob, 2003). Malaysia's special attractiveness in its tourism sector is because of the diversity in culture has enhanced to the uniqueness of these events, which differentiate themselves from any other tourist's destination. The attractiveness and diversity of festivals and special events in Malaysia has certainly increased over the years (Yusof et al., 2015). Hence, festivals and special events are increasingly viewed within the tourism sector as economic opportunities that can potentially bring benefits to the community (Ayob & Wahid, 2016).

Essentially, events that are hosted in a certain location are thoroughly organized and established as visitor attractor, provide a catalyst for further development, image builders and animators for the destination (Getz, 2008; Getz & Page, 2016). The events become activities that continuously happen and take place once a year and have a spillover outcome (Getz & Page, 2016). Events are special occasions that are staged and hosted at a location by various public or private organisations and might cover several different activities. The hosting of events currently has become a significant element to meet the needs of tourists that attend these activities. The increasing number of tourists from overseas countries have led to an increase in event tourism demand. Hence, events in Malaysia have experienced significant growth and progress significantly to meet the current requirements of travelers.

Since the early 1990s, the size of tourism events has increased to include mega-events, even though most of these mega-events staged in Malaysia have occurred only a limited period of time. Over the years, special events have started to become more popular and have later received greater attention from governmental agencies and business

organisations. To support event tourism, the Malaysian government provides incentives to significantly develop tourist events, event facilities and infrastructure (Mosbah & Mohamed Saleh, 2014).

Over recent decades, event tourism has gained much attention and has shown the potential to flourish in Malaysia. The popularity and variety of such activities in Malaysia has increased (Ayob, 2003). Event tourism in Malaysia is still considered a developing sector unlike in other countries such as Australia and Singapore where event tourism is better established (Ayob & Wahid, 2016). There is possibility for event tourism to flourish in Malaysia. Although the growth of event tourism in Malaysia has reportedly increased over the years, there is still a need to strengthen event tourism in order to ensure it is sustainable into the future. Hence, in Malaysia, prior literature on event tourism demand is still limited and there are gaps in the existing knowledge of the event tourism field.

1.4 Research Problem

Event tourism is now viewed as a significant element of Malaysia's tourism industry. Malaysia's tourism events have experienced significant development in relationship to the number and scope of activities, tourist's attendance, diversity of activities and the professionalism of event management (Ayob & Wahid, 2016). Although there is an apparent growth in event tourism in Malaysia (Ayob, 2003), the potential of event tourism demand has yet to be fully realised. This is primarily due a limited understanding on the focus areas that would be most important for tourism events within Malaysia. Also understanding basic, high-demand tourism events is vital for uncovering factors that affect and influence event tourism demand in Malaysia. Therefore, initial analyses for the demand-side of tourism

events in Malaysia provides an effective approach for assisting tourism event policy-makers and planners.

Although event tourism is treated as one of the most important tourism products in Malaysia, its progress and development has been limited by the factors surrounding the process to examine and understand event tourism demand in Malaysia. Without knowing the important determinants affecting event tourism demand, government tourism agencies will potentially face increased difficulties in indicating and realising the substantial benefits of event tourism. Tourism event planners may also face increased difficulties in expanding the tourism sector if they do not fully realise the potential of event tourism demand. On this basis, the significance of the tourism event sector has the potential to boost Malaysia's economic growth, increase the number of international tourists, increase tourist expenditure and further job creations.

As event tourism has become increasingly competitive over time, the Malaysian government has too realised the importance of event tourism in stimulating economic growth, increasing tourist arrivals and increasing employment opportunities. Therefore, if the important determinants of event tourism demand are not identified or fully understood, the effective growth of event tourism may not be as sustainable into the future. Assessing the substantial economic benefits of event tourism will provide insight into the effectiveness of tourism event policy in Malaysia. The understanding provided by this study will assist in developing the destination image and event branding opportunities in Malaysia, which can be used to further attract potential tourists.

In summary, understanding the significant contributing factors underlying event tourism demand will assist policy makers in identifying important growth determinants and

for proposing new methods in event planning. The policy maker should realise the multiplier effect of event tourism in sustaining and maximizing the demand of event tourism. Hence, sustaining the growth of event tourism in Malaysia will further expand its benefits to tourism-related industries.

1.5 Objectives of the Study

The main objective of the study is to examine the relationship between event demand and other macroeconomic variables which include tourist receipts, exchange rate, government expenditure and crude oil price. Hence, the specific objectives of the study are as follows:

- i. To examine the long-run relationship between tourist receipts, the exchange rate, government expenditure, the crude oil price and event demand.
- ii. To investigate the causality relationship between tourist receipts, the exchange rate, government expenditure, the crude oil price and event demand.
- iii. To examine the stability of event tourism demand in Malaysia.

1.6 Significance of the Study

This study intends to determine the long-run relationship between tourism receipts, the exchange rate, government expenditure and Malaysia's event demand. The findings of this study could provide useful contributions to the knowledge of event tourism demand. These vital findings could be highly significant and beneficial specifically to academicians, the government and industry.

The finding of this study is significant in describing and discerning the benefits that event tourism has for Malaysia's tourism industry. This study is unique as it is the first-time that Malaysia's event tourism demand has been explored by using time series analyses and this produces an opportunity to uncover the macroeconomic variables which influence the demand for event tourism in Malaysia. The model derived from this study will contribute to the effects of tourist receipts, the exchange rate and government expenditure towards event tourism. Thus, the understanding from this research study can be used by other scholars or researchers as a new knowledge-base or reference for future studies in event tourism.

Besides that, the current study will increase awareness among academicians and researchers regarding the development of research into event tourism demand in the tourism economics field. The availability of systematic event database and documentation may be useful for academicians to bridge the knowledge gaps and study in-depth event tourism factors. Thus, the outcomes of this study may provide a valuable reference guide for academic scholars that contribute towards event tourism studies and that could extend practical knowledge of the event tourism field.

In order to accomplish maximum demand, event tourism needs to be continuously developed to ensure that long-term event tourism demand is satisfied and accrues the maximum potential revenue growth. The need for government involvement is essential in offering and publicising festivals and special events as unique forms of attraction in order to improve tourism offerings and increase event tourism demand in the long term. The outcomes of this study will help to sustain the demand for event tourism for future planning and marketing strategies. The understanding from this study will encourage event planners to produce and organise more international events to meet the needs of the public, promote repeat visitation and promote the domestic tourism brand. Thus, this study will reveal that

the event tourism has a great potential to flourish in Malaysia in forthcoming years. This future potential growth may contribute to an increase in international tourists, an increased spending pattern among tourists, employment generation, attraction of investment both domestic and foreign and generally boost Malaysia's economic growth.

Through this research study, Malaysia's tourism industry may realise the implications for event tourism as the global market becomes increasingly competitive. Assessing the substantial economic benefits of event tourism will assist tourism-related industries in implementing long term planning and strategies to develop new ideas for festivals and events. Increased understanding from this study could become an effective instrument for event industries in developing the image of the destination and helping in sponsoring, placing and branding opportunities which can subsidize to an added promising potential visitor. Therefore, the findings from this study may also provide more information on the existing knowledge of event tourism demand. These will be a useful reference for event industries and event management.

1.7 Scope of the Study

This study will cover time series data from the period of 1991Q1 to 2016Q4 that can be used for observing the demand of event tourism in Malaysia. This study uses events listed in the annual Calendar of Events, which includes types of events such as mega events, hallmark events and major events. This study excludes local events as they are not listed within the annual Calendar of Events for the time period sampled and also due to limited data available for local events. In this study, events listed in the Calendar of Event only covers the country of Malaysia. The variables used in this study were the number of events,

tourist receipts, exchange rates, government expenditure and crude oil price. EViews 9 software was used to analyse and interpret data collected in this study.

1.8 Structure of the Study

The content of this research comprises of five chapters. The research begins with the introduction in Chapter 1 which focuses on issues relevant to the research topic. Chapter 1 consists of the general explanation of tourism in Malaysia and event tourism in Malaysia. It is then tailed by the research problems and objectives of this study related to the problem of the study. Additionally, Chapter 1 also states the contributions of this study to the body of knowledge on event tourism and also the contribution to academicians, the government and industry. This chapter also highlights the structure of the study in relation to the flow of the research conducted.

Chapter 2 further clarifies the basis for this research based on previous literature reviews relevant to this study. The literature review consists of two parts which include a review of the related event tourism studies and a review of related tourism demand studies. The review of the related event tourism studies consists of the background of event tourism (What is event tourism, event management subfields and categories of events) and analyses event tourism development (supply-side approach and impacts).

Chapter 3 presents the research methodology of this study. This chapter contains the research method used to conduct this study. It contains the descriptions of data collection, data analysis, theoretical model, the empirical model and the empirical testing procedure.

Chapter 4 conducts the data interpretation on the obtained findings. This chapter will discuss the results of the research findings. The tests conducted in Chapter 4 include the

Augmented Dickey-Fuller (ADF) Test, the Phillips-Perron (PP) Test and Autoregressive Distributed Lag (ARDL). The EViews 9 software was used to process the data for the above-mentioned tests.

The whole study is summarised in Chapter 5. This chapter includes an overall discussion of the study and makes conclusions based on the research. This chapter also proposes to response the main research questions of this study, provide policy recommendations, and details proposed future research together with the known limitations of this study.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter contains a thorough literature review of previous studies related to event tourism. Previous studies are reviewed from published and unpublished research and from secondary sources of data related to the area of special interest to the researcher. The literature review is divided into two parts. The initial part of the literature review focuses on studies related to event tourism. Empirical studies related to event tourism research are organised into a background summary to help better understanding and define the meaning of event tourism, event management subfields and categories of events. The second part of this section reviews the link between demand and supply. The review on event supply are explained under event tourism development. The second part further reviews research related to tourism demand in other countries and related tourism demand in Malaysia.

2.2 Review Related to Event Tourism

Reviews related to event tourism are described in Sub-section 2.2.1 Background of event tourism, 2.2.2 What is Event Tourism? 2.2.3 Event Management Subfields, 2.2.4 Categories of events.

2.2.1 Background of Event Tourism

Event tourism is becoming an area of rapid growth within tourism literature, as event-related tourism is now treated as an element of tourism products. Nevertheless, databases and documentation related to event tourism are limited, which affects the development of future event tourism research studies. The raw data for tourism events is extracted from different booklets or publications, which can cause inconsistencies due to the number of events being hosted each year. The need to identify and improve upon the typologies of planned tourism events are essential in organising events related to specific themes such as events related to music, entertainment and recreation, food, business, trade and corporate, culture and history, arts, political and governmental, sports, education, and others. To better understand event tourism, it is important to identify the various aspects of the various types of planned events. The typologies of planned events consist of four main categories, including – festivals and culture, sports, business and events related to entertainment as shown in Figure 2.1.

Attention is given to the four main groupings in this section as shown in Figure 2.1. The typologies of planned events shown in Figure 2.1 contain four main categories, including the main locations linked with event category respectively. For example, convention and exhibition centers, hotels and resorts and marketplaces are necessary for business events. Another example is for sports events that often require a stadium, arenas or special purpose facilities. In addition, concert halls, theatres, parks and streets are often highly-desired for entertainment events.

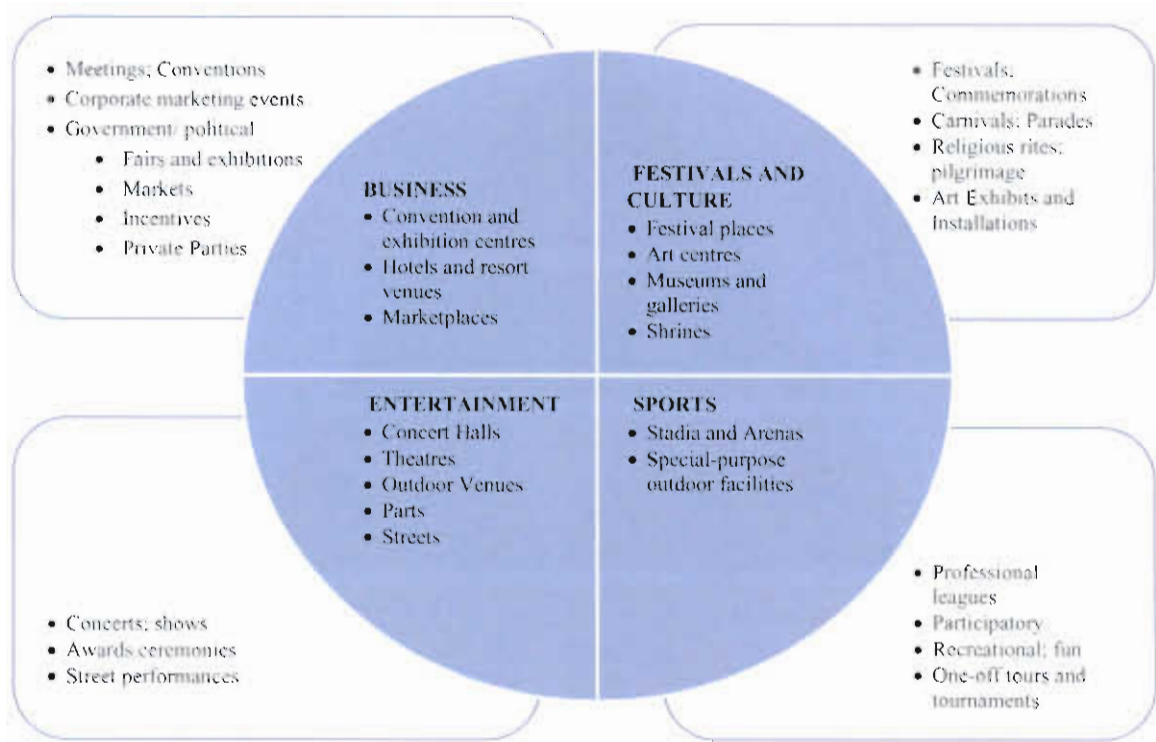


Figure 2.1: Typologies of Planned Events and Locations: An Event-Tourism Perspective (Getz & Page, 2016)

Event tourism planning is followed by a more in-depth argument on the destination viewpoint in which an event portfolio model is examined. Yet, there is often a lack of suitable or adequate data for event tourism available for analysis. The available data for event tourism is often systematically not present, which leads to inconsistencies for event planning and for the total records of events being held each year. The need for classifying the types of tourism events is vital to assist in coding events into event categories, such as mega-events, hallmark-events, major events and local events. Understanding such types and categories of events could improve the performance and trend of event tourism research. Figure 2.2 depicts tourism events categorised by the total events promoted, the economic value of the events and goals used to attract tourists. Figure 2.2 is a portfolio of events by type based on past studies by Getz (2008) and Getz and Page (2016).

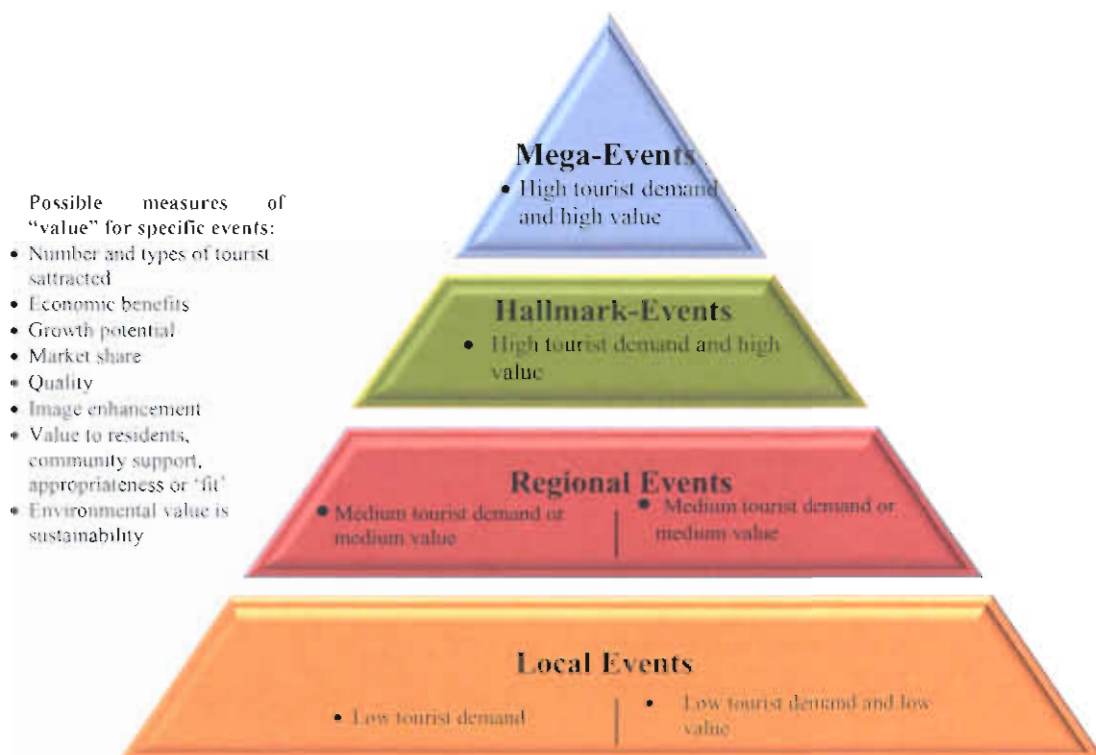


Figure 2.2: A Portfolio of Events by Types (Getz, 2008; Getz and Page, 2016).

Based on Figure 2.2, at the highest level in the event pyramid are mega-events. Mega-events are generally known to have a global economic impact of the competitive country and are covered internationally by media. In terms of tourism economics, events with a strong influence of tourism will be provided with funding and investments for facilities and infrastructure in the host country. Events with high impact are commonly related to sports events, with examples including the FIFA World Cup, BWF¹ World Championship, IAAF² World Championship and IWF³ World Championships.

¹ BWF or simply the Badminton World Federation host the World Badminton Championship.

² IAAF or the International Association of Athletics Federation is an association that organises the IAAF World Championship.

³ IWF is known as the International Weightlifting Federation that organises the International Weightlifting Championship

At the next level in the event pyramid, after mega-events, are hallmark-events, which are events with unique programs that are highly attractive to the public, they subsidise the image of the event destination and sustain and revitalise the traditions involved. Hallmark-events are also recognised as incorporating the essence of their destination location and people, which helps to attract massive revenue of the international travelers as well as recognise internationally and has a strong support from local communities. Examples of hallmark-events include the Tour de France, Feast of San Pedro and Oktoberfest in Munich.

Major events are listed at the third level in the pyramid - and are best described as large-scale events with a high media exposure and community involvement. Major events encourage huge numbers of tourists and can achieve relatively worthwhile economic impacts. Major events hosted are usually sports-oriented, often with a worldwide status.

At the base level of the event portfolio pyramid are local events and these mainly target local spectators and are staged mainly for their social and entertainment purposes. Local events frequently produce a range of benefits, including engendering pride in the community and creating a sense of place for the participants. Local events also involve exposing the community with original thoughts and knowledge as well as community encouragement in sports events and activities related to arts.

2.2.2 What is Event Tourism?

In the past, tourism was defined as the travel of people to a destination away from their usual working places and necessities and conveniences formed to provide for the requirement arising along the travel. A more recent and updated definition widens the scope of tourism, defining it as the set of events, for leisure, business and other purposes, performed

by individuals who travel to a destination which is away from their normal place for less than one consecutive year (Wyllie, 2011). While this definition of tourism is broad and includes sub-fields of other tourism sectors, the meaning of event tourism has not been accurately described.

Before going in depth regarding the meaning of event tourism, it is significant to understand the definition of tourism event. The word 'event' is referred to as a competition, adventure, gathered social activity, or other activity that has happened at a certain place and time (Cudny, 2016; Tara-Lunga, 2012). According to Tara-Lunga (2012), events can be explained as any meeting of societies for an exact purpose. An organised occasion can also be known as a conference, convention, exposition, special event or gala dinner (Oklobdzija, 2015). Events have become part of an image making process playing a critical part in comparing destinations against other locations. Apart from that, events are also identified as an effective enhancer of the destination image. Thus, events become an activity that continuously happen and take place once a year and have a spillover effect (Getz & Page, 2016). Getz (2008) stated that most events are never truly the same and that visitors who attended the events have to 'be there' at the competitive destination to enjoy and experience the uniqueness of such events.

Events can also be defined as special. In the early 1990s, Donald Getz and Joe Goldblatt referred to events as something outstanding, single and involve outside occasions. The special appeal of events is formed from the limited period and their uniqueness that makes events distinct from other organisations and encourage attractors of travelers (Getz, 1989; Yusof et al., 2015). Besides that, planned and organised events are special celebrations staged by different public or private organisations and comprise of large numbers of activities (Hernandez-Mogollon et al., 2014). Hernandez-Mogollon et al., (2014) informed

that events may be a form of tourism that happen and take place to attract potential tourists. Hence, events and festivals are increasingly organised and become an essential part of a tourism destination's planning and progress.

In general, event tourism is known for attracting tourists, creating attractive profiles for tourism destinations, positioning destinations in the tourism market and for providing a competitive marketing advantage. The definition of event tourism is often highly debated. Although event tourism is becoming more competitive globally, the field of event tourism is currently so huge that it is nearly unbearable to deliver a specific definition through one's own perspective. Several descriptions of event tourism have appeared as an effect of evolution and changes to tourism-related activities. The initial meaning of event tourism was proposed by Getz (1989) that stated that event tourism is an occasion that systematised in progress and publicising of different events as a visitor attractor.

2.2.3 Event Management Subfields

The field of event studies in tourism management has been favoured by previous scholars and has showcased the ever-expanding research interest into event management and its contribution to event tourism. The study of event management is flourishing, attracting many new viewpoints from previous studies which helps to reflect the capabilities of events in helping to transform entire economic and socio-economic industries. On the other hand, the events hosted or organised typically occur infrequently, perhaps just once per year. As described by Goldblatt (1990), events are often documented as unique moments in time. Additionally, the meaning of these special occasions can fall under the category of hallmark-events, carnivals, fiestas, mega-events and so forth. As agreed by Ayob (2003), the meaning

of each and every event hosted or staged is dependent on one's perspective and as such, the identification and definition of an event will assist in categorising the subfield of that event. Event management has diverse subfields (Goldblatt, 2002) with examples of event management subfields comprising of events such as fairs and festivals, civic events, expositions, hallmark-events, hospitality events, meetings and conferences, retail events, social life-cycle events, sports events and tourism. Table 2.1 shows the event management subfields as presented by Goldblatt (2002).

Table 2.1: Event Management Subfields

Subfield	Description	Example/Event
Fairs and festivals	Fairs are events with commercial opportunities. Festivals are primarily not-for-profit events.	- Fairs – MATTA International Trade Fair - Festivals–Sarawak Gawai Festival; Songkran Festival; Kaul Festival; Kaamatan Festival; Lantern Festival
Civic events	Events which are often one-off and unique for everyone to participate.	Sambutan Jubli Emas
Expositions	Places where wholesalers or suppliers introduce their goods and services to buyers.	Agriculture Products, Handicrafts and Food Sale Festivals
Hallmark-events	Events that are identified with the spirit of a town, city or region, and events that gain widespread recognition and awareness.	Gawai Harvest Festival; Loy Krathong
Hospitality	Events planned by hotels to help expand their business profits.	Special live music
Meetings and conferences	Events or seminars that provide networking opportunities for both association members as well as corporate employees.	Meetings; conferences; conventions; Borneo Tourism Conference
Retail events	Events that invite buyers and boost sales.	Malaysia Mega Sale Carnival; Melaka Tourism Street Carnival

Table 2.1 continued

Subfield	Description	Example/Event
Social life-cycle events	Events that mark the passage of time.	• Birthdays; weddings; golden anniversary
Sports events	Events that attract, capture, and motivate spectators before, during, or following the big game.	• Sukan Malaysia (SUKMA); Petronas Grand Prix; Le Tour de Langkawi; Commonwealth Games; Labuan International Sea Challenge; Kapit Baleh Safari; Malaysian Motorcycle Grand Prix; Sarawak Regatta.
Tourism	Events purposely planned and performed to attract tourists.	• Visit Malaysia Year; Citrawarna; Malaysia Water Festival; Rainforest World Music Festival; International Kite Festival.

Source: Goldblatt, (2002).

2.2.4 Categories of Events

The description and classification of events might be difficult and unclear as discussed previously (2.2.1 Background of Event Tourism; 2.2.2 What is Event Tourism? 2.2.3 Event Management Subfields). Although event tourism is becoming more competitive internationally, event tourism as a field of study is now so vast that it is often difficult to provide a specific definition that wholly fits. Therefore, the categories of event are included in this study to assist the process of data documentation and filtering. The management of event databases and documentation are often not well organised or maintained for events in Malaysia. Understanding the categories of events will assist in determining the types of events hosted each year.

2.2.4.1 Main Themes

Some previous studies have categorised special events by theme (Getz & Frisby, 1988; Jago, 1997; Said & Ayob, 2005; Tara-Lunga, 2012). According to Jago (1997), such a theme gives visitors an impression about what they should expect to find or experience at an event or occasion.

The event's theme might be useful in event categorisation as it helps to pinpoint what is actually involved during the event (Jago, 1997). However, Ayob (2003) argued that there is difficulty in classifying and defining the themes for events. Getz cited by Jago (1997) specified that the title of an event does not always clearly indicate the diversity of activities present and the overall experience provided by the event. Therefore, the classification of event themes by referring to the name of an event may be misleading (Getz & Frisby, 1988; Ayob, 2003). Multiple themes were designated so that a unique or distinctive event could be distinguished from other events. Although the theme might be unclear for some visitors that attended certain tourism events, Ayob (2003) determined that subjective classification was essential and needed.

According to Jago (1997), common classifications for special events include categories such as food and wine, art and music, culture, agriculture, ethnicity, sport, entertainment, religion and indigenous people. Jago (1997) mentioned that the identification of the actual event involved would be easier by including the theme to classify events. The classification presented by Getz (2008) is based on typology which consists of cultural celebrations, political and state, arts and entertainment, business and trade, educational and scientific, sports competition and private events. Tara-Lunga (2012) summarised one the most frequently-used classification schemes for events which include sport, cultural, arts, private, social, entertainment and recreational, political and entertainment and business,

trade and corporate. The recent Getz's (2016) study also mentions events categorised as business, festivals and culture, entertainment and sports.

2.2.4.2 Size/Scale

Size or scale is essential in categorising the specialness of tourism events (Jago, 1997; Andersson, Getz & Mykletun, 2013). The size of an event is determined according to the scale of the effects to the attendance, media coverage, infrastructure, cost and others. Tara-Lunga (2012) referred to Jago and Shaw's study that described size and scale as criterion based on nomological models which relate the differences between event types that consist of categories including common or special, minor or major, hallmark or mega. In Getz's current literature, size signifies the secondary principle in special event grouping based on the division of special events into small and large events (Tara-Lunga, 2012). Andersson et al., (2013) argued that the size of a special event is normally associated with the attendance of the visitors as it reflects the visitor's demand and the impact towards the manager and host communities.

Moreover, the magnitude of event finances, income and expenses, recruitment levels and the number of volunteers involved might also be essential in considering the size or scale of an event (Andersson et al., 2013). Event size can be measured by referring to events that typically involve big reputation or high-quality outputs. Tara-Lunga (2012) also clarified that iconic events have a significant fame and reputation output. For example, the FIFA World Cup and the Olympic Games which are held at an international level.

2.2.4.3 Duration

The duration of an event within the event's activity period is important for understanding the distribution and duration of events across the calendar year. According to McArdle (1998), special events "occur infrequently and are of special, often limited durations" (p. 28). The duration of special events can be held for a short period or for an extended period because of the uniqueness (McArdle, 1998). Jago (1997) helped to standardise the definition for the periods classification for events, which were described as the range from the first day of an event until the subsequent period following the event. Table 2.2 shows the perspective in defining mega-events, hallmark-events and major events.

Table 2.2: Perspective in Defining Mega-Events, Hallmark-Events and Major Events

	Mega-Event	Hallmark-Event	Major Event
Status	High status, iconic and prestigious. ^b	High status and prestigious. ^b	High status and premier event. ^b
Scale	Large-scale, national and international level. ^b	Large-scale, national and international level. ^b	National and international level. However, the size of an occasions can vary from other events. ^b
Duration	Fixed duration. ^a	One time or periodic events. ^a	One to several days. ^a
Events experience and media attention	Attract crowds of people; usually over one million visitors. ^b	Attract crowds of people. ^b	Attract crowds and media attention. A "must see" event. ^b
Economic implications	Have a significant cost. Attracted investments in the hosting destination. Boost demand for connected facilities and organizations. ^b	Have a significant cost. Attracted investments in the hosting destination. Boost demand for connected facilities and organizations. ^b	Expensive. Attracted investments for the hosting destination. Boost demand for event related services. ^b
Example	Petronas F1 Grand Prix	Le Tour De Langkawi, Tadau Kaamatan, Gawai Festival.	Rainforest World Music Festival, Malaysia Mega Sale, Pasir Gudang International Kite Festival.

Source: Compiled from ^aJago, (1997); ^bTara-Lunga, (2012).

2.3 The Concept of Supply and Demand

Supply and demand is perceived as one of the most important concepts of economics and it is the backbone of a market economy. As for the concept of demand, demand refers to the consumer's willingness and ability to buy goods and services at any desired price (Arnold, 2008). An increase in demand means consumers are willing and able to purchase more goods at any given price. However, a decrease in demand means consumers are unwilling and unable to purchase goods at any desired price. There are multiple factors that can shift demand curves including income, preferences, price of related goods, number of buyers and expectation of future price.

On the other hand, supply refers to the consumer's willingness and ability of sellers to produce and offer goods and services at any desired price (Arnold, 2008). An increase of the price of the goods will lead to an increase of the quantity supplied, meaning the higher the price, the higher the quantity supplied. Producers supply more at a higher price because selling a higher quantity at a higher price increases revenue (Dyal & Karatjas, 1990). However, as the price of the goods and services decline, the quantity of supplied goods often decline as well. The factors that cause supply curves to shift are prices of relevant resources, technology, prices of other goods, number of sellers, expectations of future prices, taxes and subsidies and government restrictions.

When supply and demand are equal, such as when the supply and demand functions intersect, the economy is said to be most efficient because the amount of goods being supplied is exactly the same as the amount of goods being demanded. In these economic scenarios of equal supply and demand, individuals, firms and countries will benefit from

balanced economic conditions. At equilibrium, suppliers are selling all of their goods produced and consumers are purchasing all of the goods that are in demand.

The concept of supply and demand can also be applied in tourism studies. For example, the participation of tourists and their engagement in tourism related activities. The tourism-related activities engaged by the tourists include sports or physical activities, attending events, education, heritage, nature, health activities, religious activities, sightseeing, shopping, meeting and conventions. Hence, tourists can visit tourism destinations for specific reasons, which subsequently generates further tourism demand. On the other hand, the government becomes the key element for the tourism industry in maintaining tourism destinations, event promotions and for continued management of the tourism infrastructure. Besides that, destination competitiveness has encouraged regional governments to provide products to satisfy tourists, which triggers additional tourism supply (Wijayanti et al., 2017). Therefore, the concept of tourism supply and demand is important in creating the development of tourism. For example, a combination of tourism supply and demand has the potential for increasing the popularity of a tourism destination.

2.4 Analyses of Event Tourism Development

Among the small number of studies related to event tourism, most studies seem to have favoured event tourism by using different approaches. Some study the growth of event tourism based primarily on the supply-side (McArdle, 1998; Ayob, 2003; Said & Ayob, 2005), with even more studies on the impact of events (Cibinskiene, 2012; Dwyer et al., 2005; Dwyer et al., 2006; Fourie & Santana-Gallego, 2011). Yet, not many studies have used economic time series analyses in evaluating event tourism. Scholars have rarely employed

the time series analysis method in examining the event tourism field. The advantage of time series analyses is that the analysis provides an understanding of event tourism demand which is important at the introductory stages of event tourism research. This section will be divided into two parts including (i) Supply-side investigation: Temporal, Spatial and Thematic and (ii) Impacts.

2.4.1 Supply-side investigation: Temporal, Spatial and Thematic

There are a number of studies that employ temporal, spatial and thematic analyses in studying special events. Many regions are inclined to host special events to increase their uniqueness and image. In addition to these benefits, events can also be a good method to overcome seasonal problems where tourism demand is lacking, by expanding the peak season and boosting new tourist seasons. Hence, conducting research into understanding event tourism from the supply-side can assist in the initial studies of the growth and trends of event tourism in Malaysia.

Past studies from McArdle (1998) examined the concentration of special events in Victoria, Australia in 1997 by employing temporal, spatial and thematic analyses. The aim of Tourism Victoria was to establish a geographic and seasonal distribution of activities or events in Victoria. The findings showed that the regional and seasonal special events were apparently concentrated in certain places rather than evenly spread across the region.

After the study by McArdle (1998), other literature regarding event tourism has spread and garnered research interest in many developing countries such as Malaysia. The growing number of event tourism studies conducted in Malaysia encouraged Ayob (2003) to explore event tourism in the Malaysian state of Sarawak. Ayob (2003) analysed the growth

of event tourism in Malaysia from 1990 to 2000 by employing temporal, spatial and thematic analyses, with results that showed that Malaysian festivals and special events had significant growth in event numbers, size and attendance, diversity and professionalism. The benefits of socio-economic development, increases in tourism-related facilities and further event promotion within Malaysia have increased the need for understanding the growth and trends of event tourism in Malaysia.

Festivals and special events in Malaysia started to perform well starting in the early 1990s. Sarawak is one of the states that showed a dramatic increase in festivals and special events, and the significant growth within the event sector in Sarawak has developed reliable, supply-side statistics allowing the analyses of trends in staging tourism events. Said and Ayob (2005) examined the seasonal trends of event tourism in Sarawak by using thematic, spatial and temporal analysis for Sarawak state in 2003, with findings that showed an inconsistent spread of events in Sarawak over the years. Thus, boosting the market for a certain region may not provide the opportunity to reach the untapped market elsewhere in Sarawak, as well as creating the potential for the inefficient use of existing facilities and infrastructure. Most tourism events staged in Sarawak are concentrated within the major cities which have high population densities. Based on thematic analyses, cultural or religious events and sporting events account for the most popular events staged throughout Sarawak and have provided tremendous growth for event tourism throughout the years.

Based on the supply-side studies in Sarawak, the temporal, spatial and thematic approaches in special event research fields indicate that festivals and special events have made significant growth in event numbers, size and attendance, diversity and professionalism. However, the supply-side studies also provide insight into the inconsistent spread of tourism events over the years.

Table 2.3: Review of Event Tourism Development on the Supply-Side – Temporal, Spatial and Thematic

Author(s)	Methodology	Data	Finding(s)
McArdle (1998)	Temporal, Spatial and Thematic	Country: Australia	The finding showed that the regional and seasonal special event happenings were apparently concentrated in certain places rather than evenly spread.
Ayob (2003)	Temporal, Spatial and Thematic	Country: Malaysia	The finding showed that there is a significant growth in event numbers, size and attendance, diversity and professionalism.
Said and Ayob (2005)	Temporal, Spatial and Thematic	Country: Malaysia (Sarawak State)	- The finding showed that the spread of events is not consistent over the years. - Most of the events staged concentrated on important cities that have a high population density.

2.4.2 Impacts

Besides supply-side analysis, the economic impact of events has also been analysed by a number of researchers. These researchers compared the approaches that were suitable for research on the event related to economic impact such as Dwyer et al., (2005, 2006) and Cibinskiene (2012). However, Fourie and Santana-Gallego (2011) employed a different approach to studying the impact of international tourism flows. Therefore, the understanding of the economic impacts of events can produce more positive impacts for the tourist arrivals involved in events, but, this does depend on the type of event hosted.

Cibinskiene (2012) employed the input-output (I-O) and the computable general equilibrium (CGE) approaches to examine how the competitiveness of tourism was

influenced by the economic impact of the events held. Based on the finding, the I-O method, rather than the CGE approach was found to be preferable in evaluating an event. This indicated that the economic impact of events is significantly correlated with a city's tourism competitiveness. Events have become a factor of city competitiveness that attracts tourists and encourages them to spend. As tourist spending during events hosted indirectly boosts the economy of the city, the competitiveness of tourism will greatly increase as well.

According to Dwyer et al., (2005), the researchers used I-O and CGE models to indicate whether the economic factors were influenced by the special events. However, Dwyer et al., (2005) argued that I-O models resulted in a mismanagement of event investment and unnecessary overall expenditure in emerging events. Therefore, CGE models were more suitable to assess the influence of an event on economic factors.

Dwyer et al., (2006) have argued that CGE is preferable to I-O analysis. Dwyer et al., (2006) examined whether special events are encouraged by the economic impacts. Dwyer et al., (2006) stated that CGE is more appropriate to examine the impacts of events, event subsidies, interregional effects, multistate effects and their fiscal impacts.

On the contrary, methodologies such as the CGE approach, the I-O approach or cost-benefit analysis are commonly employed to evaluate the impact of events on a country or region. However, several past studies have used different methodologies to further explain international tourism. The existing literature by Fourie and Santana-Gallego (2011) employed a gravity model to examine the effect of mega-events on tourism growth. The gravity model used annual data from 200 countries over the period 1995 to 2006. The findings showed that tourist arrivals were greatly influenced by mega-sport events. As more mega-events are being held internationally, more tourists will come, not just locally, but internationally too. However, the outcomes presented are dependent on the size of the events.

To summarise, Dwyer et al., (2005, 2006) stated that the CGE approach is preferable to assess the impact of an event on economic activity. On the other hand, Cibinskiene (2012) indicated that I-O is a more appropriate approach in event estimation. Moreover, Fourie and Santana-Gallego (2011) found that the results presented depended on the type of mega-event.

Table 2.4: Review of Event Tourism Development – Impact

Author(s)	Methodology	Finding(s)
Cibinskiene (2012)	- I-O - CGE	The finding showed that I-O analysis is a more suitable approach than CGE in estimating events.
Dwyer et al., (2005)	- I-O - CGE	The finding showed that CGE models are preferable to assess the economic factors influenced by an event.
Dwyer, Forsyth and Spurr (2006)	- I-O - CGE	The finding showed that CGE models are preferable to estimate the displacement effects of events, their fiscal impacts, intraregional effects, event subsidies and multistate effects.
Fourie and Santana-Gallego (2011)	Gravity Model	The finding showed that tourism growth is affected by mega sports events. However, the results presented depend on the category of events.

2.5 Empirical Studies on Tourism Demand

Most of the existing literature regarding event tourism has tended to focus on the term classifications of event tourism. Whilst some other literature has favoured reviewing the supply-side analysis and impacts of events. Scholars have rarely examined event tourism by using the time series approach. For the first time, this study will employ time series to analyse event tourism through demand models. Understanding the demand parts will assist in determining the factors that affect event demand. A brief evaluation of the relevant literature has been categorised into two parts. The earlier empirical studies have reported

diverse results for tourism demand models. The review of previous empirical studies on tourism demand consist of three groups: Section 2.3.1 Review of related tourism demand in other countries, Section 2.3.2 Review of related tourism demand in Malaysia.

2.5.1 Review of Related Tourism Demand in Other Countries

Recently there has been increased interest in investigating the association between tourism demand and other economic variables. Based on past literature, different strands of the studies in tourism demand model have been reviewed, including Chaitip and Chaiboonsri (2009), Muchapondwa and Pimhidzai (2011), Asemota and Bala (2012), Deluna and Jeon (2014) and Hor (2015) representing some studies that have compiled comprehensive surveys of literature that included suitable models of tourism demand. Even with these comprehensive reviews, there were mixed outcomes produced by the tourism demand models.

A number of previous studies also employed similar economic analysis techniques. There was no enhancement in the econometric approach used by researchers in past studies. A study by Chaitip and Chaiboonsri (2009) examined the factors that affects Thailand international tourist in the short-run and long-run. This study employed quarterly data from 1997Q1 to 2005Q2 by using the ARDL method. The variables used in this study were the exchange rate, GDP, transportation costs, exchange rate risk, the price of goods and services and the temperature. The findings showed that income growth was positively correlated towards international tourist arrivals in the long-run. However, there were negative impacts between the exchange rate, transportation costs and exchange rate risk towards Thailand's tourist arrivals. Apart from that, in general when Thailand faced lower temperature, tourist

arrivals would decline. This indicated that unfavourable or bad weather conditions and tourist arrivals in Thailand are negatively correlated.

In a study by Muchapondwa and Pimhidzai (2011), the scholars attempted to examine the factors related to Zimbabwe's tourism demand by using annual data from 1998 to 2005. The variables used in their study were international tourism demand, taste formation, domestic prices, foreign prices, income and transportation costs by employing the ARDL technique. Based on the findings, there were significant impacts from taste formation, transportation costs, growth in income and events held, towards the demand for international tourism. This infers that the enhancement of international tourism facilities and strengthening of taste formation would be essential in encouraging more global visitors to visit Zimbabwe.

Surugiu, Leitao and Surugiu (2011), carried out research to indicate the impacts of the international visitor demand for Romania. There were two analyses models included in this study which were the Tobit model and fixed-effects model. This study used annual data from 1997 to 2008 and the variables included in this study were international tourist arrivals, GDP, trade, population, distance and price. There were 23 countries involved in this study namely Austria, Denmark, Belgium, France, Bulgaria, Switzerland, Italy Finland, Germany, Luxembourg, Ireland, Norway, Portugal, The Netherlands, Poland, the United Kingdom, the Czech Republic, Slovakia, Spain, Slovenia, Sweden, Hungary and Turkey. The empirical results showed that Romania's tourism factors were influenced by trade, population, GDP and prices for the fixed effects static panel model. As for the Tobit model, Romania's tourism flow was affected by population, GDP, trade, distance and prices. Therefore, based on both models, the essential and overlapping determinants for Romania and the countries of origin were trade, population and income.

In the study by Asemota and Bala (2012), the researchers examined the long-run and short-run relationship in tourist arrivals in Japan from five major western countries namely the USA, Canada, the UK, Germany and Australia. This study used annual data covering from 1962 to 2009. The empirical findings stated that tourist arrivals were affected by the explanatory variables in the long-run. The result in both the long and short-run showed that an increase in GDP per capita in the tourists' origin destination significantly influenced the inflow of visitors into Japan. Besides that, the high elasticity of price and the tourism price in competing destination countries significantly affected the number of tourist arrivals. Additionally, the long-run results indicated that the USA and Canada showed the highest reliability of tourism into Japan.

The study by Deluna and Jeon (2014) was different from other relevant studies. Deluna and Jeon (2014) employed an augmented gravity model approach to study the factors affecting the international tourism demand for the Philippines. This study used annual data from 2001 to 2012 and included the variables; income, population, relative prices of tourism in destination countries, bilateral distance, relative price of tourism and the relative real effective exchange rate. The finding of the study suggested that high income in the origin country has a positive and significant impact towards tourist inflow. However, there is no effect from goods and services prices and the relative low prices of tourism towards attracting inbound tourists. Besides that, the relative prices of competing tourist destinations such as, Thailand, Malaysia and Indonesia showed no influence towards the demand for tourism in the Philippines.

According to Hor (2015), who employed the ARDL model to study the elements that had an effect on international tourist arrivals from 12 countries (Canada, Germany, Australia, France, Japan, Thailand, Italy, Malaysia, Switzerland, the USA, Vietnam and the UK) into

Cambodia both in the long and short-run. Annual times series data from 1994 until 2013 were used during the estimation. The variables chosen in this research were tourist arrivals, tourism price level, unemployment and population. Based on the findings, an increase in the GDP per capita of the tourist's origin countries would significantly and positively affect the flow of tourist arrivals, especially from Australia, Thailand and Canada. High population growth rates in Thailand and Australia had positive impacts on visitor arrival rates into Cambodia. Besides that, there was a significant and positive effect between unemployment growth rates and the arrival of visitors from Australia and Canada. Low population, low population growth over the previous financial year and the unemployment rate were negatively correlated and had a significant impact on the arrival of visitors from the USA.

However, a study by Mamula (2015) was different to other comparative studies. Mamula's (2015) study forecasted the international tourism demand for Croatia using different approaches. This study used quarterly data from 2003Q1 to 2013Q4 by utilising the Holt-Winter triple exponential smoothing model, multiple regression models, the SARIMA model and the seasonality naïve model. Based on the empirical findings, all of the estimated models conducted well-forecasted performances. However, the diagnostic results based on the estimated models revealed that the four tested models did not vary significantly. Hence, the most accurate forecast results were found by using the multiple regression models of tourist arrivals from Germany into Croatia. The summary on review of related tourism demand in other countries can be found in appendices.

2.5.2 Review of Related Tourism Demand in Malaysia

Recently, there has been increasing attention in evaluating the tourism demand model. (Mohd Salleh, Othman & Chandran, 2007; Mohd Salleh, et al., 2008; Habibi et al., 2009; Hanafiah & Harun 2010; Habibi & Abbasinejad, 2011; Kusni et al., 2013; Ooi et al., 2013; Thien et al., 2015). However, there is a lack of empirical literature concerning the accurateness of the demand model for tourism. This is because the outcomes of earlier studies are inconsistent in nature and require further clarification.

According to Mohd Salleh et al., (2007), who investigated the demand for tourism in Malaysia by selecting four international countries namely Japan, Australia, Singapore and Hong Kong and using the ARDL technique to examine the long-run as well as the short-run associations. The selected variables were Malaysia's tourist arrivals, the cost of travelling, Malaysia's tourism price, the tourism price at competitive destinations, the exchange rate and income. The findings showed that in the long-run the cost of travelling to Malaysia, Malaysia's tourism price, income and the price of tourism at competitive destinations became vital factors of Malaysia's tourism demand. Apart from that, the result also indicated that the dummy variables (East Asian Economic crises 1997/1998 and SARS) showed that the demand for Malaysia's tourism is significantly correlated.

Mohd Salleh et al., (2008) investigated the association of the explanatory variables towards Malaysia's tourist arrivals. The study used annual data from 1970 to 2004 and included variables such as the price of tourism, the cost of travelling, substitute price, income, the exchange rate and Malaysia's visitor arrivals. The technique used in this study was the ARDL bounds test approach which was established by Pesaran et al., (2001). The empirical findings over the long-run showed that the major factors of tourism demand in Malaysia were the cost of travelling to Malaysia, the price of tourism, substitute price and

income. Besides that, the findings in the short-run also included the dummy variables (World Economic Crisis 1997/1998, word-of-mouth effect and SARS 2002/2003) which were shown to significantly affect Malaysia's tourism demand.

Habibi et al., (2009) attempted to examine the factors that affect the flow of international visitors to Malaysia by using annual datasets from 1995 to 2005. This study investigated the 15 most important tourist generating countries for Malaysia namely, Singapore, Thailand, Indonesia, Brunei, China, Japan, Australia, United Kingdom, India, Philippines, United States, Hong Kong, Germany, France and South Korea by using the GMM-DIFF estimator. The empirical results showed that price and the number of arrivals was negatively correlated and it was significant. This indicates that an increase in prices will discourage the arrival of tourists into Malaysia.

Hanafiah and Harun (2010), estimated Malaysia's tourist inflow by employing the Gravity model. Their study included tourist arrivals from Hong Kong, Australia, Thailand, Indonesia, China, UK and Taiwan and incorporated a cross-sectional pool time series. The variables included in this study were tourist arrivals, distance, price, income, the exchange rate, population, the consumer price index and economic crisis by estimating annual data from 1993 to 2007. The findings showed that the Gross National Income (GNI) has highly correlated with tourism demand. However, tourism demand and the exchange rate had a negative relationship. This implied that tourists with a high purchasing power are likely to travel to Malaysia. Besides that, the growth of population and distance are positively correlated with tourism demand. Apart from that, economic crisis and the tourist inflow from the ASEAN countries depicts a negative relationship.

Apart from that, Habibi and Abbasinejad (2011) employed annual datasets from 1998 to 2008 to examine the factors of the international tourist inflow of Europeans into Malaysia.

The variables involved in this study were tourism price, income, substitute price, political stability, hotel rooms and tourist arrivals. Dynamic panel data analysis was included in the study. The 19 origin countries from Europe were UK, Germany, France, the Netherlands, Sweden, Finland, Italy, Portugal, Switzerland, Denmark, Spain, Russia, Norway, Ireland, Poland, Austria, Turkey, Belgium and Luxembourg. The empirical findings showed that Malaysia's tourism demand was positively influenced by political stability, habit persistence (word-of-mouth), hotel rooms and income.

Kusni et al., (2013) studied the factors of Malaysia's tourist inflow from OECD countries which were influenced by economic and non-economic reasons. This study covered datasets from 1995 to 2009 using annual data. The variables included in the study were tourist arrivals, tourism price, real personal income and substitute price. The approaches employed in the study were the fixed or random effects model. The empirical finding showed that the demand of tourist inflows and the relative price are highly elastic. Empirically, when comparing the substitute price among the OECD countries, it was proven that Singapore was, relatively, a substitute destination for Malaysia. Apart from the economic factors, the non-economic factors (SARS and global economic crises) also played their role in urging tourism demand.

Apart from that, Ooi et al., (2013) investigated whether Malaysia's tourism demand was affected by tourism crises by using annual data from 2001 to 2009. The empirical result showed that some Malaysian states namely Selangor, Penang, Malacca and Pahang were listed to be high demand touristically which had a significant and negative relationship with tourism crises. However, one Malaysian state, Penang, depicted a different outcome where it presented a positive association with tourism crises.

Kusni et al., (2013) studied the factors of Malaysia's tourist inflow from OECD countries which were influenced by economic and non-economic reasons. This study covered datasets from 1995 to 2009 using annual data. The variables included in the study were tourist arrivals, tourism price, real personal income and substitute price. The approaches employed in the study were the fixed or random effects model. The empirical finding showed that the demand of tourist inflows and the relative price are highly elastic. Empirically, when comparing the substitute price among the OECD countries, it was proven that Singapore was, relatively, a substitute destination for Malaysia. Apart from the economic factors, the non-economic factors (SARS and global economic crises) also played their role in urging tourism demand.

In addition, according to Kadir et al., (2008), who investigated four major industrial countries which were the USA, UK, Germany and Japan to see the factors affecting tourists inbound to Malaysia. This study used annual data from 1994 to 2004, employed the random-effects model, the Ordinary Least Square (OLS) and the fixed-effects model. The variables included in the study were tourist arrivals, real gross domestic product, the cost of living and the price of tourism in substitute destinations. The finding showed that the inbound tourist from the four industrial countries were significantly influenced by tourist's income from their origin country and the tourism price in the substitute destination which was the Philippines.

Thien et al., (2015) studied the factors of Malaysia's tourism demand from Thailand by using Error-Correction Model (ECM) analysis. This study using quarterly data from 2000Q1 to 2013Q4. The variables involved in the study were tourist arrivals, real income, real travel cost and exchange rate. The empirical findings showed the presence of long-run association between Thailand's tourism demand and the independent variables employed in

the study. This implies that an increase in income for Thailand, an appreciation in Thailand's currency and rising in the cost of travelling will induce more Thailand's travelers to Malaysia. The summary on review of related tourism demand in Malaysia can be found in appendices.

2.6 Concluding Remark

This section comprises a thorough literature review of previous studies related to event tourism based on the supply-side and demand-side. The initial part of this literature review focuses on the supply-side in order to explain the growth and trends of event tourism. Based on previous studies, there is an apparent growth in terms of the number of events, size, attendance, diversity and professionalism (Ayob, 2003). The understanding of event tourism from the supply-side can assist in determining the potential for event tourism into the future.

The second part of this section further reviews tourism demand to explain and determine the factors which affect event demand. The concept of tourism demand is applied to identify the determinants used in this study, where four variables are established based on the past studies. These variables include tourist receipts, exchange rate, governmental expenditure and crude oil price as important factors that need to be considered to examine event tourism demand.

Therefore, the concept of tourism supply and demand is important for understanding the potential development of tourism and has the potential for increasing the popularity of a tourism destination.

Based on the tourism demand model, past literature reviewed in this chapter has highlighted useful variables to be used in future tourism demand studies. Most of the past studies reviewed include income and price as an explanatory variable in the tourism demand model.

Income variables estimated in previous studies are considered as the most important determinant for evaluating tourism demand (Mohd Salleh et al., 2008). Based on past studies, gross domestic product, gross national income, consumption expenditure and personal disposal income are used to measure income for the origin country (Asemota & Bala, 2012). The appropriate variables to measure tourists on holiday or visiting friends and families are personal disposal income or private consumption expenditure (Song et al., 2009).

Additionally, Chaitip and Chaiboonsri (2009) and Muchapondwa and Pimhidzai (2011) defined tourist's travelling cost as the transportation from their origin country to the destination when examining tourism demand in Thailand. Since there is limited data available for individual tourist travelling and transportation costs, crude oil price was employed as a proxy for this variable as described by Mohd Salleh et al., (2007). For example, as previously described within studies by Mohd Salleh et al., (2008) and Thien et al., (2015).

Meanwhile, exchange rate is also one of the essential variables that can affect tourism demand besides income and relative price (Ooi et al., 2013). Based on past literature, the transportation cost from the origin country to the destination country and the cost of living in the destination country are two components included in tourism price. However, the inclusion of these two variables may lead to problems of multicollinearity as well as issues related to the lack of data availability (Asmota & Bala, 2012). The motivation of

international tourists to travel may also depend on the cost of living in the destination country relative to the origin country. Particularly, to estimate cost of tourism or price of tourism, exchange rate was proxied to measure tourism demand under study. For example, Mohd Salleh et al., (2007), Mohd Salleh et al., (2008) and Ooi et al., (2013).

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter contains the research methodology used to conduct this study. It contains the descriptions of data collection, the data analysis, the descriptive analysis and the time series analysis. First, this chapter introduces the description of the data collection for this research. This research study is a quantitative research study and it is a secondary-based quantitative research area. The following part of this section presents the estimation model of this study. Besides that, the sources of data are documented in this chapter. Lastly, this chapter discusses the design of the time series. Hence, this chapter shows the process of how the data will be analysed, interpreted and presented.

3.2 Data Description

Primarily, this study is quantitative research in nature by utilising secondary data collected from various government reports and documents. Based on the model identified in the objectives of the study in Chapter 1, the variables identified are (1) Number of events (EVENT); (2) Tourism receipts (TRECEIPT); (3) Exchange rate (EXC); (4) Government expenditure (GOVX) in Malaysia and (5) Crude oil price (COP). The data used in this study consists of one endogenous variable (EVENT) and four exogenous variables (TRECEIPT, EXC, GOVX and COP). The variables selected in this study are based on the demand for tourism which postulates that income and price type factors are likely to play a central role in determining the demand.

Except for data related to events in Malaysia, data for tourism receipts, the exchange rate, government expenditure and the oil price from 1991 Q1 to 2016 Q4 are readily available from government reports. Data for tourism receipts (TRECEIPT), the exchange rate (EXC), government expenditure (GOVX) together with the crude oil price (COP) were retrieved from the Census and Economic Information Centre (CEIC). Table 3.1 shows the types of variables in this study.

Table 3.1: Types of Variables Used in this Research

Variables	Types of Data	Form of Data	Extracted From	Publication
Tourism Receipts (TRECEIPT)	Quarterly	RM (Million)	Tourism Malaysia	CEIC
Exchange Rate (EXC)	Quarterly	Nominal exchange rate (RM/USD)	International Monetary Fund	CEIC
Government Expenditure (GOVX)	Quarterly	RM (Million)	Bank Negara Malaysia	CEIC
Crude Oil Price (COP)	Quarterly	RM	South African Reserve Bank	CEIC
Number of Events (EVENT)	Quarterly	Total number of events	Calendar of Events	Tourism Malaysia

Note: CEIC=Census and Economic Information Centre, RM=Ringgit Malaysia

In the case of data on the total number of events per year, there is no ready data or information available for researchers. The website from Tourism Malaysia only presents the current list of events of the year for tourists to consider when they plan to visit Malaysia. Hence, to get the desired data on tourism events and festivals in Malaysia since 1991, the researchers searched the historical annual published Calendar of Events kept at Tourism Malaysia’s main library at Putrajaya. Each year, Tourism Malaysia publishes a booklet or pamphlet of the list of events and associated descriptions as information material for tourists.

The booklets are then placed at tourist information centers around Malaysia and also all over the world. Nevertheless, there is only one copy of each annual calendar of events kept at the library.

Basically, the list of events and descriptions are considered raw data and not yet suitable to be analysed. Figure 3.1 presents the processes of data documentation and filtering. Consequently, the list of events and descriptions first has to be documented and then filtered to ensure its validity and reliability. For proper documentation, the pages of the Calendar of Events booklets and pamphlets were scanned. Then, the researcher extracted every single event, a total of 6144 events from 1990-2015 and recorded them into an Excel file. At the same time, an initial event coding was created based on the literature review (Getz, 1989, 2008; Getz & Page, 2016; McArdle, 1998; Oklobdzija, 2015; Tara-Lunga, 2012). Then, the identified coding was gradually compared to fit the data extracted from the Calendar of Events. Refer to Table 3.2, for a summary of the event category coding for the form of events. The form of events comprises of four types which are mega-events, hallmark-events, major events and local events. Mega-events are gigantic events that have a huge impact on economic growth and receive a great demand from audiences. A hallmark-event is an event that is held repeatedly and attracts great attention from visitors, it subsidises the image of the destination and sustains tradition. A major event is a large-scale event with a strong community involvement and media exposure. Local events are mainly targeted at local audiences and satisfy the needs of small-scale local communities.

Table 3.2: Coding for Form of Events

Form of Events	Coding
Mega-Event	1
Hallmark-Event	2
Major Event	3
Local Event	4

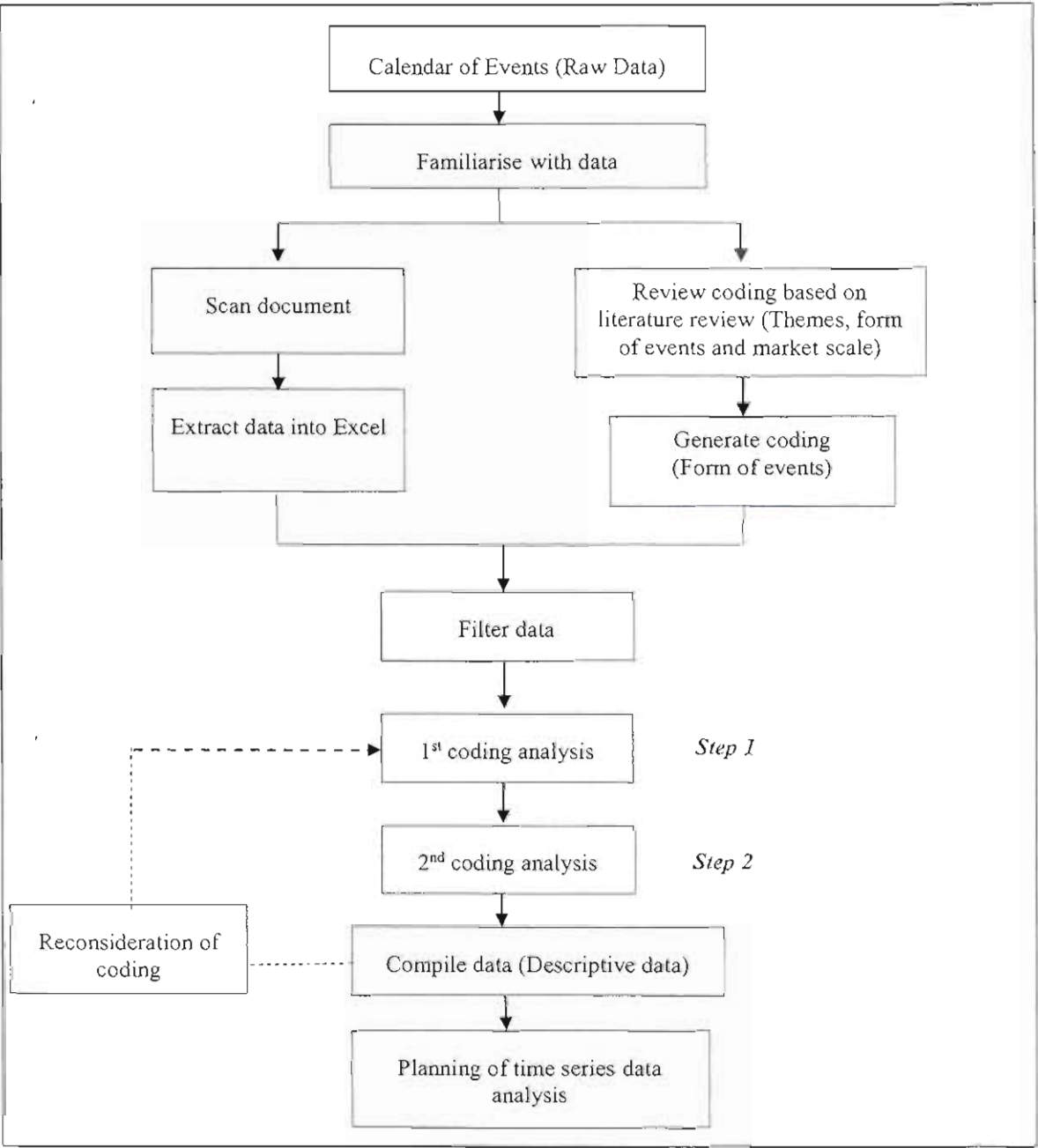


Figure 3.1: Process of Data Documentation and Filtering

After that, the raw data (list of events) was put through a filtering process. Technically, the researcher began by separating the data from the original text systematically reducing the amount of data and structuring the data according to the aim of the investigation. This was essential because the raw data was extracted from different booklets published

annually in different forms and formats. In other words, the raw data was not from one record, form or format. There were differences of format from one Calendar of Events to another. It was observed that the Calendar of Events from 1991 until 2008 included all types of events regardless of royal celebrations, religious festivals, events for tourism, or other types of events. However, the Calendar of events from 2009 till 2016 was different because the majority only listed mega-events, hallmark-events and major events. In conclusion, the condition of the raw data was inconsistent each year which therefore required data filtering to ensure that the data was valid and reliable year to year.

The data filtering process was done qualitatively and systematically. A dual step approach was utilised to categorise all 5,685 events from 1991-2016 into an appropriate group category – Mega-event, Hallmark-event, Major event, and Local event. The filtering process was done by two different researchers/experts. In other words, all of the events were filtered (coded) twice in order to minimise biasness and improve the reliability of the filtered data. It was very important for the researchers to familiarise themselves with the data by reading and re-reading the Calendar of Events. It was important to actively read through the entire list of events at least twice before attempting to code and search for meanings. The name of the event and descriptions such as date, month, length of the event, type of venue, state, region, type of event, market, scale, the theme of the event, and the organiser were also considered. Additionally, events that were found redundant or not relevant to event tourism were removed. Examples were the birthday celebrations of Sultans or Kings, and some religious celebrations celebrated in more than one state.

Finally, the basic frequency analysis in the individual datasets was performed with the help of IBM SPSS Statistic 23 for general statistical analysis of the total of 5,685 events in Malaysia. Besides that, a certain period had been allocated to complete all phases of the

analysis. These phases took place across 26 periods which were from 1991 to 2016. The frequency of the form of events was transformed into Excel ready for the time series analysis. Refer to Figure 3.2 for the data for EVENT that was used for the data analysis.

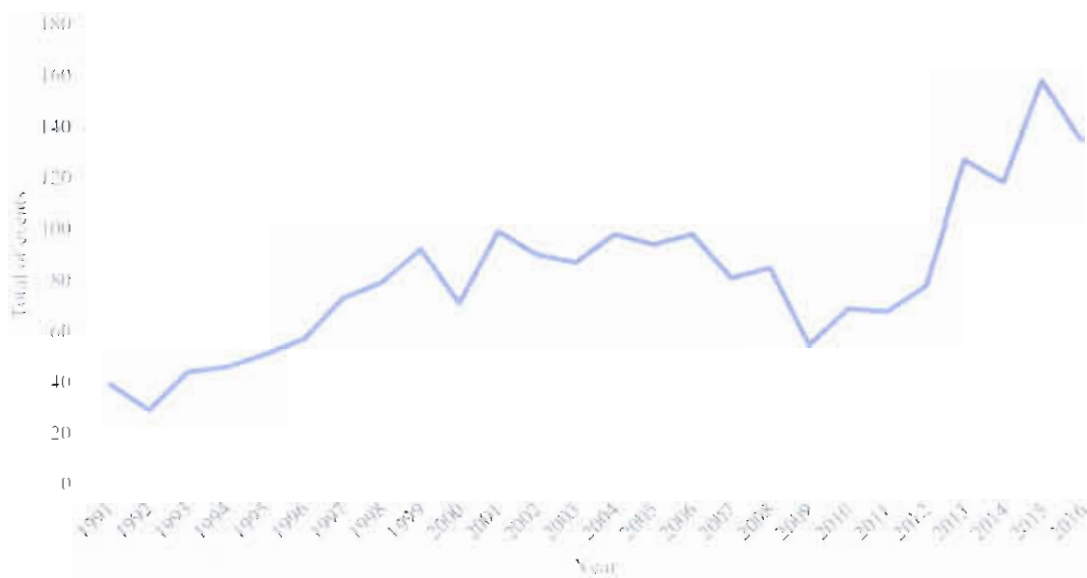


Figure 3.2: The Numbers of Tourism Events in Malaysia, 1991-2016

Figure 3.2 shows the number of tourism events in Malaysia from 1991 to 2015. It seems that tourism events in Malaysia have grown in numbers over the years. The number of events reported in 2000 had increased 38% since the beginning of 1990 as displayed in Figure 3.2. in 1990, a total of 44 events were staged compared to 71 events in 2000. The number of events reported high in 2002, 2006 and 2008, and were highest in 2013 and 2015. Only a small number of events were reported in 2009 after Malaysia’s economy was badly affected.

3.3 Data Analysis

There were two phases of analysis done in this research study. The first phase involved a descriptive analysis. IBM SPSS Statistics 23 was used for the general statistical analysis. Then, the second phase involved a time series analysis and employed the EView 9 software.

The variables (event demand, tourist receipt, exchange rate, government expenditure and crude oil price) to be estimated will then transformed into natural logarithm form prior to estimation. The basic formulation of the log-linear can be expressed as the following:

$$LEVENT = \beta_0 + \beta_1 LTRECEIPT + \beta_2 LEXC + \beta_3 LGOVX + \beta_4 LCOP + \varepsilon \quad (3.1)$$

where, β_0 is a constant term and $\beta_1, \beta_2, \beta_3$ and β_4 is a reaction coefficient that measures the change in return for a change of the explanatory variables. The set of dependent and independent variables were written as follows:

LEVENT : Logarithm form of the number of events in Malaysia

LTRECEIPT : Logarithm form of tourism receipts

LEXC : Logarithm form of the exchange rate

LGOVX : Logarithm form of government expenditure

LCOP : Logarithm form of the crude oil price

3.4 Theoretical Framework

In tourism demand studies, income and price have been applied in theoretical models to describe a standard theory of demand, which is used by a number of studies including Mohd Salleh et al., (2007), Mohd Salleh et al., (2008), Habibi et al., (2009) and Kusni et al., (2013). This standard theory of demand forms the theoretical foundations for modelling tourism demand. Theoretical investigations are often studied using a single equation model in which researchers select explanatory variables based on the standard demand theory.

General findings indicate that an increase in tourism is often best attributed to higher income of tourists. This is because tourism is known as a luxury good (Crouch, 1994). Muchapondwa (2011) and Chaitip and Chaiboonsri (2009) describes that the elastic income coefficient designates tourism as a luxury good given that demand increases more in proportion to a change in income.

General findings suggest using crude oil price as a proxy for travelling cost in event tourism due to inherent data limitations related to acquiring travelling costs (Mohd Salleh et al., 2007 & Thien et al., 2015). The cost of travelling denotes how much spending travelers require for their transportation from their origin country to the destination. Therefore, as the transport cost increases, the cost of travelling become more more expensive, which may discourage visitors from travelling to certain tourism destinations.

In line with recent studies on tourism demand, another significant and suitable variable is likely to be the exchange rate (Mohd Salleh et al., 2007 & Mohd Salleh et al., 2008). The exchange rate can be defined as the proportion of currency values between the receiving and origin countries. Fluctuations in exchange rate will affect the currency value of the origin country. Appreciation or depreciation of the tourist's currency value depends

on the changes in exchange rate in the origin country. The appreciation of the tourist's currency will encourage more tourists to travel to tourism destinations. As the travelling of the tourists increases, tourists tend to spend more on goods and services. This is in line with the Purchasing Power Parity where the appreciation or depreciation of exchange rate are in equilibrium when the value of national basket goods and services are the same between origin country and the destination country. The Purchasing Power Parity theory predicts that market forces will cause the exchange rate to adjust when the prices of national baskets are not equal. Therefore, changes in the relative prices of goods due to supply and demand shifts, will induce changes in exchange rate and deviation from purchasing power parity.

Keynesian economics is a theory that states that the government should increase demand to boost growth. This theory proposes that spending boosts aggregate output and generates more income. According to Keynesian theory, consumer demand is the primary driving force in an economy, where the spending of one consumer eventually generates economic growth. Increased government spending may even create a multiplier effect. If the government spending causes lower unemployment, then there will be theoretically more income to spend leading to a further increase in aggregate demand. Therefore, government expenses may generate economic growth of the country which will indirectly increase expenditure towards public facilities, infrastructure, event promotion and others (Li et al., 2013).

3.5 Empirical Model

This study uses demand for tourism to identify the factors and estimate their importance in explaining event tourism demand in Malaysia. Based on the previous studies,

the demand for tourism is likely to be determined by macroeconomic factors such as income, price as well as exchange rate. The basic event tourism demand is presented in the simple demand function as below:

$$EVENT = f(TRECEIPT, EXC, GOVX, COP) \quad (3.2)$$

Where *EVENT* is a measure of event demand in Malaysia. *TRECEIPT* is a measure of income of the tourists generating or origin country. *EXC* is a measure of exchange rate between US and Malaysia. *GOVX* represent the event promotion allocates by the government spending. *COP* proxies the travel or transportation cost.

The expected sign exist for tourist receipt is positive relationship with event demand. This indicates that an increase in tourist's income will encourage tourist to travel and spend more on goods and services.

Besides that, exchange rate is expected to have positive or negative relationship towards event demand. Appreciation of Malaysia Ringgit will encourage tourist travelling into Malaysia. However, depreciation of Malaysia Ringgit will discourage tourist travelling into Malaysia.

Meanwhile, the presence of positive relationship between government expenditure and event demand is expected. The allocation of government spending on infrastructure and event promotion will increase tourist travelling into Malaysia which will indirectly demand for events hosted in Malaysia.

A positive or negative relationship is expected to exist between crude oil price and event demand. This indicates that an increase in crude oil price will increase the airfares and transportation cost which will discourage tourist to travel to Malaysia. This may indirectly

decrease the demand of events hosted in Malaysia. However, decrease in crude oil price will boost tourist travel into Malaysia because the airfares and transportation cost tend to be cheaper. Therefore, this may encourage tourists to demand more on goods and services.

All the variables are transformed into natural logarithm. Thus, the event demand model to be estimated in this study is proposed as:

$$LEVENT_t = \beta_0 + \beta_1 LTRECEIPT_t + \beta_2 LEXC_t + \beta_3 LGOVX_t - \beta_4 LCOP_t + \varepsilon_t \quad (3.3)$$

Where *LEVENT* refers to the logarithms of the number of events in Malaysia, *LTRECEIPT* refers to the logarithms form of tourist receipts, *LEXC* denotes to the logarithms form of the exchange rate, *LGOVX* refers to the logarithms form of government expenditure and *LCOP* refers to the logarithms form of the crude oil price.

3.6 Empirical Testing Procedure

In this study, two standard unit root tests were used for all variables, namely, the ADF test (1981) and the PP test (1988). The purpose of unit root tests is to examine the stationarity of the variables. Then, the ARDL bounds testing approach was employed which was developed by Pesaran and Shin (1998) and Pesaran et al., (2001).

3.6.1 Unit Root Test

3.6.1.1 Augmented Dickey-Fuller (ADF) Test (1981)

Dickey and Fuller (1981) suggested that the Augmented Dickey-Fuller test is used to examine the stationarity of time series data. The ADF test was developed from the Dickey-Fuller test. The formulation of the ADF test can be expressed as follows:

$$\Delta X_t = \beta_1 + \delta X_{t-1} + \alpha_t \sum_{i=1}^m \Delta_{t-i} + \mu_t \quad (3.4)$$

$$\Delta X_t = \beta_1 + \lambda T + \delta X_{t-1} + \alpha_t \sum_{i=1}^m \Delta_{t-i} + \mu_t \quad (3.5)$$

where Δ_{t-1} is the lag of the first differences to accommodate serial correlation in the errors, μ_t ; T denoted the deterministic time trend; and β , δ , λ are the parameters to be estimated. Equation 3.2 tests the null hypothesis of the unit root and the non-stationary variables. Equation 3.3 by contrast, tests the null hypothesis of the unit root and the stationary variables.

The hypothesis for the ADF test is:

$$H_0 : \delta = 0$$

$$H_a : \delta < 0$$

The null hypothesis implies that the existence of the unit root and the variables is non-stationary. The alternative hypothesis implies that the series is stationary.

The ADF test uses the t-statistic to examine the stationarity of the variables. The decision rule of the significance variable is based on the critical values at the 1 percent, 5 percent and 10 percent significance level. If the t-statistic is greater than the critical value, hence, the null hypotheses are rejected and it is of significance. Besides, if the t-statistic is less than the critical value, hence, we do not reject the null hypotheses and it is of insignificance.

3.6.1.2 Phillips-Perron Test (1988)

The PP test is written as:

$$x_t = \alpha_0 + \beta_{xt-1} + \mu_t \quad (t = 1, 2, \dots, T) \quad (3.6)$$

where X_t is the time series represented as μ_t defined as the innovation term, t represents the number of observations. The PP test has the same hypothesis as the ADF test whereby the null hypothesis is:

$$H_0 : \beta = 1$$

$$H_1 : \beta < 1$$

The null hypothesis is the existence of the unit root and the variables are non-stationary. The alternative hypothesis implies that the variables are stationary and does not have the unit root.

Similar to the ADF test, the PP test was used to identify the stationarity of the series. The decision rule of the significance variable is based on the critical value at the 1 percent, 5 percent and 10 percent significance levels. If the t-statistic was greater than the critical value, hence, the null hypotheses are rejected and it is of significance. Besides, if the t-statistic is less than the critical value, hence, we do not reject the null hypotheses and it is of insignificance. The PP test can perform better than the ADF test.

3.6.2 Autoregressive Distributed Lag (ARDL) Model

3.6.2.1 ARDL Bound Testing Approach

Pesaran and Shin (1998) developed the ARDL bounds testing approach for testing the existence of a cointegration relationship to overcome the mixture of $I(0)$ and $I(1)$. Besides, the ARDL approach is valid irrespective of the order of integration and is also suitable for small sample sizes (Narayan, 2005).

The ARDL approach involves two steps for estimating a long-run relationship. Firstly, the ARDL method was used in this study to examine the existence of a long-run

relationship between the variables. Secondly, the long-run and short-run parameters for a specified model were estimated using the associated ARDL model and Error Correction Models (ECM). To test for cointegration in model 1 by bounds test, the following conditional Unrestricted Error Correction Model (UECM) was constructed:

$$\begin{aligned}\Delta LEVENT_t = & \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta LEVENT_{t-i} + \sum_{i=0}^n \alpha_{2i} \Delta LTRECEIPT_{t-i} + \\ & \sum_{i=0}^n \alpha_{3i} \Delta LEXC_{t-i} + \sum_{i=0}^n \alpha_{4i} \Delta LGOVX_{t-i} + \sum_{i=0}^n \alpha_{5i} \Delta LCOP_{t-i} + \\ & \beta_1 LEVENT_{t-1} + \beta_2 LTRECEIPT_{t-1} + \beta_3 LEXC_{t-1} + \beta_4 LGOVX_{t-1} + \\ & \beta_5 LCOP_{t-1} + e_t\end{aligned}\quad (3.7)$$

where Δ denotes the first difference operator, α_0 is the drift component, and e_t are the usual white noise residuals. The left side is the manpower demand. The first until fourth expressions (β_1 - β_4) on the right side correspond to the long-run relationship. While the remaining expressions (α_1 - α_4) represent the short-run dynamics of the model. To examine the presence of a long-run relationship between *LTRECEIPT*, *LEXC*, *LGOVX*, *LCOP* and *LEVENT*, bounds testing based upon Narayan (2005) was adopted here. The bound testing process was based on the F-statistic.

The first test was on the null of no cointegration based on the F-statistic. The F-statistic is to test the hypothesis of no cointegration among the variables against the presence of cointegration among the variables. The null hypothesis cannot be accepted when the F-statistic is greater than the upper bounds critical value at a significant level. Therefore, the variables can be rejected in the long-run. The null hypothesis of no cointegration will be accepted if the F-statistic is lesser than the lower bound critical value. The hypothesis is shown as follows:

$$H_0 : \beta_1 = \beta_2 = \beta_3 = \beta_4 = 0 \text{ (There is no cointegration among the variables)}$$

$H_1 : \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 = 0$ (There is cointegration among the variables)

There are two critical values according to Narayan (2005) for the cointegration test. The lower critical bound assumes that all of the variables are $I(0)$ meaning that there is no cointegration relationship between the variables. The upper bound assumes that all of the variables are $I(1)$ meaning that there is cointegration among the variables. When the computed F-statistic is greater than the upper bound critical value, then the H_0 is rejected. This means that the variables are cointegrated. Besides that, when the F-statistic is below the lower bound critical value, then the H_0 cannot be rejected. This means that the variables are not cointegrated. When the computed F-statistic falls between the upper and lower bound critical value, then the results are inconclusive.

$$\begin{aligned} \Delta LEVENT_t = & \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta LEVENT_{t-i} + \sum_{i=0}^n \alpha_{2i} \Delta LTRECEIPT_{t-i} + \\ & \sum_{i=0}^n \alpha_{3i} \Delta LEXC_{t-i} + \sum_{i=0}^n \alpha_{4i} \Delta LGOVX_{t-i} + \sum_{i=0}^n \alpha_{5i} \Delta LCOP_{t-i} + \\ & \lambda ECT_{t-1} + \mu_t \end{aligned} \quad (3.8)$$

where λ is the speed of the adjustment parameter and ECT are the residuals that are obtained from the estimated cointegration model of the equation. The coefficient is normally statistically a negative sign. Essentially, ECT is implied to identified speed of adjustment that needed to adjust back to the long-run equilibrium. Several diagnostic tests were applied to ensure the quality of fit of the model. These tests examined the serial correlation, normality, heteroscedasticity and RESET tests. Furthermore, stability tests were applied to check the stability of the coefficient of the regression, as suggested by Pesaran and Pesaran (1997).

3.6.3 Diagnostic Tests

The model that has been used for testing the long-run relationship and coefficients were further tested with the diagnostic tests for Serial Autocorrelation, Heteroscedasticity, normality test and RESET test.

3.6.3.1 Normality Test

The Normality test was employed in this model to check for the normality of the residuals. If the residuals are normally distributed, the test statistic of the Jarque-Bera test is insignificant. However, if the residuals are not normally distributed, the test statistics are significant. The test hypothesis for the normality test is as follows:

H_0 : *Residuals are normally distributed*

H_1 : *Residuals are not normally distributed*

3.6.3.2 Serial Correlation Test

The serial correlation test is an alternative to the test statistics to detect the problem of serial correlation. The test hypothesis for the LM test is as follows:

H_0 : *There is no serial correlation*

H_1 : *There is serial correlation*

3.6.3.3 Autoregressive Conditional Heteroscedasticity (ARCH) Test

Besides, the Autoregressive Conditional Heteroscedasticity (ARCH) test is the heteroscedasticity test which is normally used in time series data. The test hypothesis for the heteroscedasticity test is as follows:

H_0 : *Variance of the residuals are constant or homoscedasticity*

H_1 : *Variance of the residuals are unequal or heteroscedasticity*

3.6.3.4 Ramsey's RESET Test

Therefore, Ramsey's RESET test was employed to test for model misspecification. This test is designed to detect for omitted variables and an incorrect functional form. The test hypothesis for the RESET test is as follows:

H_0 : *There is no misspecification of the model*

H_1 : *There is misspecification of the model*

3.6.4 Stability Test

The stability of the model and the coefficient were checked through the CUSUM and CUSUM square tests.

3.6.5 Granger Causality Test

In line with the ARDL procedures, the Granger Causality test was conducted after the determination of the existence of a long-run relationship among the variables. The Granger Causality test was employed to test for a short-run relationship between the

variables. The existence of a cointegrated long-run relationship indicates that the residuals from the cointegration equation can be used as an ECT as follows:

$$\begin{aligned} \Delta LEVENT_t = & \alpha_0 + \sum_{i=1}^n \alpha_{1i} \Delta LEVENT_{t-i} + \sum_{i=0}^n \alpha_{2i} \Delta LTRECEIPT_{t-i} + \\ & \sum_{i=0}^n \alpha_{3i} \Delta LEXC_{t-i} + \sum_{i=0}^n \alpha_{4i} \Delta LGOVX_{t-i} + \sum_{i=0}^n \alpha_{5i} \Delta LCOP_{t-i} + \\ & \lambda EC_{t-1} + \mu_t \end{aligned} \quad (3.9)$$

where λ represents the speed of the adjustment parameter, Δ is the lag operator, α_0 , α_1 , α_2 and α_3 are the estimated coefficients, n is the optimal lags of *LEVENT*. To decide whether or not to reject the null hypothesis, H_0 of the Granger causality test is rejected if the p-value is statistically significant at 1 percent, 5 percent or 10 percent. This means that there is the existence of causality between the variables.

3.7 Summary

To summarise, all the data were transformed into logarithms. Then, the ADF test and the PP test were employed to examine the stationarity of the data and the order of integration for the variables. From the unit root test conducted, the ARDL approach was performed if the unit root tests are integrated at order $I(0)$ and $I(1)$. According to Pesaran et al., (2001), the ARDL technique can be applied when the regressors are integrated at order $I(0)$, $I(1)$ or mixed order.

This study employed the critical values for small sample sizes as stated in Narayan (2005). This is because the critical values reported by Pesaran et al., (2001) are mostly very large numbers of observations which required 1000 observations. Then, the F-statistic was compared with the critical value to see whether the F-statistic is below lower bound, between lower bound and upper bound; or above upper bound. Before estimating the F-statistic, the

order of lag length was identified. Besides that, the short-run and long-run value had been estimated using the ARDL approach. *LEVENT* became the dependent variable. The result of EC_{t-1} must be significant, less than one and negative. It also indicated the speed of adjustment among the variables towards the long-run equilibrium. The following diagnostic tests were performed; serial correlation test of the residual, misspecification of functional form (RESET test), the Jarque-Bera test and the Autoregressive conditional heteroscedasticity (ARCH) test. After that, we applied the CUSUM and CUSUM square tests to investigate the stability of tourism demand in Malaysia. Lastly, the Granger Causality test was used to examine and check the short-run and causality between the variables under study.

CHAPTER 4

RESULT AND INTERPRETATION

4.1 Introduction

This chapter discusses the empirical results of the estimated model. In empirical analysis estimation, the initial step is determining the order of integration between the variables by applying the unit root tests. The ADF and PP tests were tested in this study. As the integration order has been determined, the long-run cointegration was conducted by using the Autoregressive Distributed Lag (ARDL) model. Diagnostic tests were carried by using the serial correlation test of the residual, misspecification of functional form (RESET) test, the Jarque-Bera test and the Autoregressive conditional heteroscedasticity (ARCH) test. Then, the critical value was then compared with the F-statistic to see whether the F-statistic was below the lower bound, between lower bound and upper bound or above the upper bound. Besides that, CUSUM and CUSUM square were employed to investigate the stability of the variable. Next, the causality relationship among the variables was undertaken based on the Granger Causality test.

4.2 Unit Root Test

As stated in the previous chapter, the integration order for each variable in this study was based on the Augmented Dickey-Fuller (ADF) and the Phillips-Perron (PP) unit root tests. The optimum lag length is chosen based on the Akaike Information Criteria (AIC). Apart from this, the unit root test will be examined which is from 1991Q1 to 2016Q4 which consisted of 104 observations.

4.2.1 Augmented Dickey-Fuller (ADF) Test Result

Table 4.1 presents the outcomes of the ADF unit root test which ranged from 1991Q1 to 2016Q4. For the ADF test rejection rule, the null hypothesis of non-stationarity will not be accepted if the outcome of the test statistic is more than the critical value. Based on Table 4.1, the ADF test result at level reported that we can accept the null hypothesis without trend and with trend for the variables *LTRECEIPT*, *LEXC*, *LGOVX* and *LCOP* because the test statistics have a lower value compared to the critical values at 1 percent, 5 percent and 10 percent except for *LEVENT*. This means that there is an occurrence of unit root and non-stationarity in the level. The null hypothesis without trend and with trend for *LEVENT* is rejected at the 10 percent and 1 percent significance level. This means that the test statistics are greater than the critical value. Besides that, the variables are stationary at level and did not have a unit root.

After first differencing, the null hypothesis without trend and trend existing can be rejected for *LEVENT*, *LTRECEIPT*, *LEXC*, *LGOVX* and *LCOP* at the significance level of 5 percent and 10 percent. This clearly shows that the variables are stationary and there is no existence of unit root after first differencing without trend and with trend. Besides that, the test statistics results based on Table 4.1 are more than the critical value. As a whole, the ADF unit root test shows that *LEVENT*, *LTRECEIPT*, *LEXC*, *LGOVX* and *LCOP* are integrated at order $I(0)$ and $I(1)$.

Table 4.1: Augmented Dickey-Fuller Unit Root Test Result

	Augmented Dickey-Fuller				Finding
	Level		First Difference		
	Intercept	Intercept & Trend	Intercept	Intercept & Trend	
<i>LEVENT</i>	-2.660 (2)*	-4.205 (2)***	-7.222 (3)***	-7.184 (3)***	I(0)
<i>LTRECEIPT</i>	-1.386 (5)	-2.789 (5)	-3.617 (4)***	-3.720 (4)**	I(1)
<i>LEXC</i>	-1.005 (0)	-1.479 (0)	-8.799 (0)***	-8.772 (0)***	I(1)
<i>LGOVX</i>	-0.939 (3)	-0.928 (3)	-8.687 (3)***	-8.669 (3)***	I(1)
<i>LCOP</i>	-1.223 (0)	-2.417 (0)	-8.842 (1)***	-8.801 (1)***	I(1)

Note: *LEVENT*= Logarithm of event tourism, *LTRECEIPT*= Logarithm of tourist receipts, *LEXC*= Logarithm of exchange rate, *LGOVX*=Logarithm of government expenditure and *LCOP*= Logarithm of crude oil price. (***), (**) and (*) symbolize level of significance at 1%, 5% and 10%, respectively.

4.2.2 Phillips-Perron (PP) Test Result

Besides that, for the Phillips-Perron unit root test results, the null hypothesis cannot be rejected at level for both without trend and with trend for *LTRECEIPT*, *LEXC* and *LCOP* because the test statistics had a lower value associated with the critical values for 1 percent, 5 percent and 10 percent significant level except for *LEVENT* and *LGOVX*. This means that there was an occurrence of unit root and the variables were non-stationary in the level. The null hypothesis without trend and with trend for *LEVENT* is rejected at the 1 percent significance level. The null hypothesis with trend for *LGOVX* was not accepted at the 1 percent significance level. This means that the test statistics were greater than the critical value. Besides that, the variables were stationary at level and did not have unit root.

After first differencing, the null hypothesis for trend and without trend was rejected for *LEVENT*, *LTRECEIPT*, *LEXC*, *LGOVX* and *LCOP* at the level of significance of 1 percent. This clearly showed that the existence of unit root did not occur and that the variables employed in this study showed stationarity after first differencing without trend and with trend. Besides that, the test statistics results were more than the critical value. As a

whole, the PP unit root test showed that *LEVENT*, *LTRECEIPT*, *LEXC*, *LGOVX* and *LCOP* were integrated at order I(0) and I(1).

Table 4.2: Phillips-Perron Unit Root Test Result

	Phillips-Perron				
	Level		First Difference		Finding
	Intercept	Intercept & Trend	Intercept	Intercept & Trend	
<i>LEVENT</i>	-6.865 (8)***	-8.965 (8)***	-25.301 (9)***	-25.084 (9)***	I(0)
<i>LTRECEIPT</i>	-1.152 (3)	-1.973 (3)	-5.458 (3)***	-5.481 (3)***	I(1)
<i>LEXC</i>	-1.005 (0)	-1.595 (1)	-8.831 (3)***	-8.806 (3)***	I(1)
<i>LGOVX</i>	-2.153 (4)	-11.027 (4)***	-31.693 (4)***	-31.611 (4)***	I(0)
<i>LCOP</i>	-1.173 (2)	-2.391 (3)	-9.664 (4)***	-9.614 (4)***	I(1)

Note: *LEVENT*= Logarithm of event tourism, *LTRECEIPT*= Logarithm of tourist receipts, *LEXC*= Logarithm of exchange rate, *LGOVX*=Logarithm of government expenditure and *LCOP*= Logarithm of crude oil price. (***), (**) and (*) symbolize level of significance of 1%, 5% and 10%, respectively.

From the unit root test result conducted, the ADF test and the PP test were integrated at order I(0) and I(1) as shown in findings Table 4.1 and Table 4.2. As referred to on the result conducted in the unit root test, the mixed order of I(0) and I(1) allowed us to proceed to the Autoregressive Distributed (ARDL) lag.

4.3 Autoregressive Distributed Lag (ARDL) Model

From the unit root test result conducted as shown in Table 4.1 and Table 4.2, the ARDL approach was applied to investigate the presence of a long-term association between event demand and its potential explanatory variables (tourist receipt, exchange rate, government expenditure and crude oil price).

The ARDL F-statistic was used to analyse the existence of cointegration among each factor of the event tourism demand model and their potential independent variables over the period 1991Q1 to 2016Q4. The result of the F-statistic for cointegration is shown in Table 4.3. The result of the F-statistic shown in the table is 8.105 which is greater than

the critical value and lies above the upper bound. The computed F-statistic was compared with the critical values that account for the small sample sizes provided by Narayan (2005) as reported in Table 4.3. The null hypothesis of no cointegration cannot be accepted at the 1 % significance level as the result of the F-statistic is greater than the critical bounds. In other words, we have strong evidence to not accept the null hypothesis of a no cointegrating association between the dependent and the independent variables. Hence, there is an occurrence of a long-run association between *LTRECEIPT*, *LEXC*, *LGOVX*, *LCOP* and *LEVENT*. Table 4.3 shows the result of the cointegration properties computed and the critical bounds are obtained from Narayan (2005).

Table 4.3: Bounds Test Result

Dependent variable	Critical bounds (5%)		
	F-statistic	Bottom	Top
<i>DLEVENT</i>	8.105***	3.74	5.06

Source: The estimated critical bound were attained based on Narayan (2005). *** denote significance at 1%.

The UECM gives an R-square of 0.712, with a Durbin-Watson statistic of 1.990. Table 4.4 presents the estimation of the ARDL model of event tourism. Based on Table 4.4, AIC was used for the ARDL optimum order and the ARDL’s order is (1, 0, 0, 5, 5).

Table 4.4: The Estimated ARDL Model of the Event Tourism

Variables	Coefficient	Standard Error
Constant	-2.509	1.131**
<i>DLGOVX</i>	0.386	0.251
<i>DLGOVX (-1)</i>	-0.434	0.301
<i>DLGOVX (-2)</i>	0.201	0.307
<i>DLGOVX (-3)</i>	0.699	0.319**
<i>DLGOVX (-4)</i>	0.373	0.223**
<i>DLCOP</i>	-0.004	0.177
<i>DLCOP (-1)</i>	0.085	0.208
<i>DLCOP (-2)</i>	0.216	0.207
<i>DLCOP (-3)</i>	0.558	0.193**
<i>DLCOP (-4)</i>	0.415	0.196**
<i>LTRECEIPT (-1)</i>	0.278	0.162*
<i>LEXC (-1)</i>	0.431	0.218*
<i>LGOVX (-1)</i>	0.357	0.240
<i>LCOP (-1)</i>	-0.471	0.153**
<i>LEVENT (-1)</i>	-0.593	0.095***
Note: The (***), (**) and (*) signify the level of significance at 1%, 5% and 10%, respectively.		
R-square		0.712
R-adjusted		0.661
F-statistic		13.728

Note: The (***), (**) and (*) signify the level of significance of 1%, 5% and 10%, respectively.

Based on the ARDL technique, the long-run outcomes indicated that *LTRECEIPT*, *LEXC* and *LGOVX* are positively correlated with *LEVENT*, except for *LCOP* which has a negative association with *LEVENT*. Empirically, the outcome implies that in the long-run, an increase in *LTRECEIPT* of 1% will increase the *LEVENT* of 0.419% with a significance value of 10% level of significance. While, as 1% rise in *LEXC*, the *LEVENT* tend to rise 0.775% with a significant value of 5% level of significance. Therefore, as *LGOVX* rise in 1%, the *LEVENT* will tend to increase in 0.625% with a significance value of 10% significant level. Besides that, the estimated coefficient for *LCOP* shows there was a negative (0.777%) and significant at the 5% level. The long-run outcomes are obtainable in Table 4.5.

$$LEVENT = -4.282 + 0.419 LTRECEIPT + 0.775 LEXC + 0.625 LGOVX - 0.756 LCOP$$

T = (-2.446) (1.692)* (2.373)** (1.664)* (-3.109)**

Table 4.5: Long-Run Estimates Results

Variables	Coefficient	Standard Error
<i>LTRECEIPT</i>	0.419	0.247*
<i>LEXC</i>	0.775	0.326**
<i>LGOVX</i>	0.625	0.375*
<i>LCOP</i>	-0.756	0.243**
Constant	-4.282	1.750**

Note: The (***), (**) and (*) represent the level of significance of 1%, 5% and 10%, respectively.

The short-run dynamic of the determinant of *LEVENT* was estimated using the ARDL approach. Empirically, the short-run results specified that increasing tourist receipts are positively correlated and not significant towards event demand in Malaysia. The outcomes showed that if tourist receipts increased by 1% then the event demand in Malaysia tended to increase by 0.257%. Besides that, the exchange rate and event demand in Malaysia depicted a positive relationship. The short-run outcomes indicated that when a zero-lag period of exchange rate increased by 1%, then the demand for events increased 0.476%. The observed outcomes for government expenditure were positive and significant towards the event tourism demand in Malaysia. As government expenditure increased in the short-run by 1%, then the event demand in Malaysia increased by 0.392%. In addition, the crude oil price tended to positively effect event tourism demand in the short-run and it was significant.

There was only one ECT involved in the model. Table 4.6 shows the ECM estimation having *LEVENT* as the dependent variable. The significance of the EC_{t-1} of the ECM means the presence of the long-run equilibrium between *LEVENT* and the independent variables which were *LTRECEIPT*, *LEXC*, *LGOVX* and *LCOP*. Besides that, the ECT is negative, less than one, statistically significant, indicating that there is long-run and stable relationship among the variables under study. The coefficient showed a correct sign (-0.589) and suggested that about 96% of the event tourism adjustment arose after 1 year 8 months. On this basis, it was concluded that *LEVENT* only depended on the brunt of short-run adjustment to bring about the long-run equilibrium. This study reconfirms the bound test result in which

the variables under study are cointegrated. Table 4.6 shows the Error Correction Model results.

Table 4.6: Error Correction Model Results

Variables	Coefficient	Standard Error
<i>DLTRECEIPT</i>	0.257	0.156
<i>DLEXC</i>	0.476	0.227**
<i>DLGOVX</i>	0.356	0.251
<i>DLGOVX (-1)</i>	-0.630	0.142***
<i>DLGOVX (-2)</i>	-0.502	0.129***
<i>DLGOVX (-3)</i>	0.298	0.229
<i>DLGOVX (-4)</i>	0.392	0.223*
<i>DLCOP</i>	-0.021	0.117
<i>DLCOP (-1)</i>	-0.102	0.256
<i>DLCOP (-2)</i>	-0.358	0.259
<i>DLCOP (-3)</i>	0.156	0.258
<i>DLCOP (-4)</i>	0.419	0.196**
<i>ECT (-1)</i>	-0.614	0.099***
Ramsey's RESET	F-statistic: 1.864 (0.176)	
Jarque-Bera test	JB-statistic: 1.561 (0.458)	
Breusch-Godfrey LM test	F-statistic: 0.307 (0.689)	
Heteroscedasticity (ARCH) Test	F-statistic: 0.498 (0.477)	

Note: The (***), (**) and (*) represent the level of significance of 1%, 5% and 10%, respectively.

The diagnostic checking in Table 4.6 which consisted of the serial correlation (LM test), misspecification of functional form (RESET test), the Jarque-Bera test (Normality test) and the autoregressive conditional heteroscedasticity (ARCH) test. All of the diagnostic checking which consisted of the RESET test, normality test, LM test and ARCH test showed that the null hypothesis was accepted at the level of significance of 1%, 5% and 10%. This means that the model had an accurate functional form and that the model's residuals had homoscedasticity, were normally distributed, not serially correlated and misspecification did not exist.

Then, the CUSUM and CUSUM square tests were applied to investigate the stability of event tourism in Malaysia. Figure 4.1 and Figure 4.2 show the CUSUM and CUSUM square graphical presentation. The outcomes showed that the CUSUM and CUSUM square tests stayed inside the critical bound representing the stability of event tourism in Malaysia.

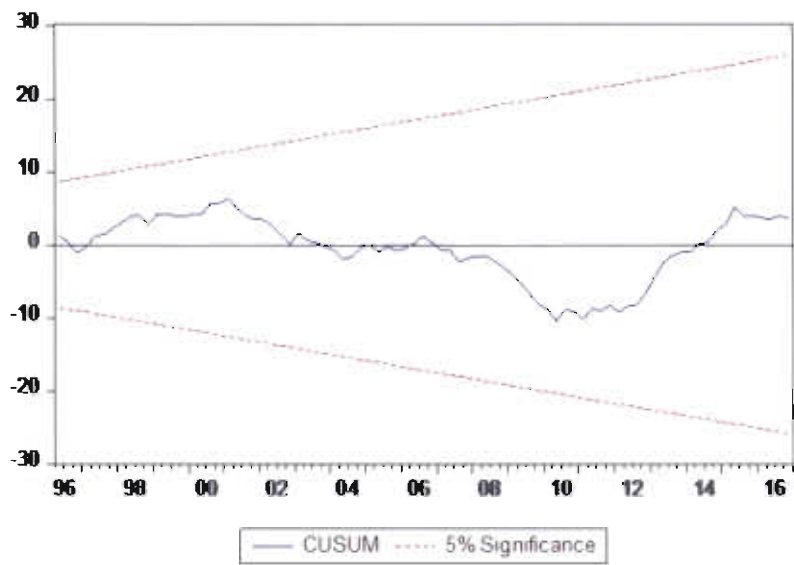


Figure 4.1: CUSUM

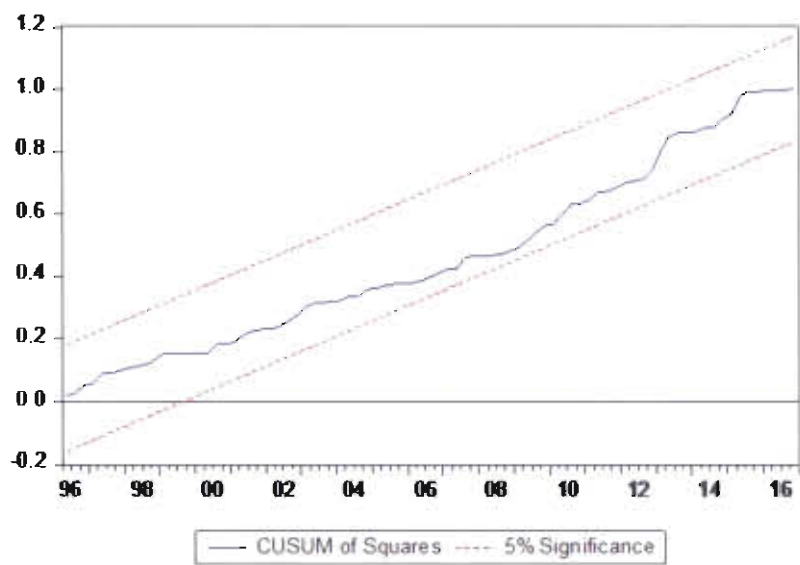


Figure 4.2: CUSUM Square

Table 4.7 shows the Granger Causality test result for event tourism in Malaysia. The short-run association between event demand and the other explanatory variables was tested using the Wald test. Based on the table below, it was reported that *LTRECEIPT*, *LEXC*, *LGOVX*, *LCOP* can cause *LEVENT*. *LTRECEIPT* can cause *LEVENT* with a probability of 0.000 and it means that *LTRECEIPT* was able to influence *LEVENT* where the null hypothesis was accepted at the significance level of 1%. Besides that, *LEXC* did cause *LEVENT* with a probability of 0.099 and it was at the significance level of 10%. Therefore, *LGOVX* can cause *LEVENT* with a probability of 0.000 and it was rejected at the 1% significance level. Other than that, *LCOP* can cause *LEVENT* with a probability of 0.004 and it means that *LCOP* is able to influence *LEVENT* at the 10% significance level. As a whole, tourist receipts, exchange rate, government expenditure and the crude oil price can influence event tourism demand in Malaysia.

Table 4.7: Granger Causality Test Results

Null Hypothesis	Chi-square	Probability	Result
<i>LTRECEIPT</i> does not cause <i>LEVENT</i>	15.006	[0.000]***	<i>LTRECEIPT</i> => <i>LEVENT</i>
<i>LEXC</i> does not cause <i>LEVENT</i>	2.717	{0.099}*	<i>LEXC</i> => <i>LEVENT</i>
<i>LGOVX</i> does not cause <i>LEVENT</i>	53.056	[0.000]***	<i>LGOVX</i> => <i>LEVENT</i>
<i>LCOP</i> does not cause <i>LEVENT</i>	9.698	[0.084]*	<i>LCOP</i> => <i>LEVENT</i>

Note: The (***), (**) and (*) represent the level of significance of 1%, 5% and 10%, respectively.

4.4 Discussion

In this study, the ADF and PP tests were used to examine whether the variables under study were stationary or not. The purpose of the unit root test was to examine the stationarity

of the variables. Then, the ARDL technique was employed which was developed by Pesaran and Shin (1998) and Pesaran et al., (2001). However, according to Ouattara (2004), who argued that the existence of $I(2)$ variables in the computed unit root would not proceed to the ARDL approach. This implies that only mixed $I(0)$ and $I(1)$ variables would proceed based on the assumption by Pesaran et al., (2001).

Hence, the application of the ADF and PP tests in the ARDL technique are vital in ensuring that none of the variables under study are integrated at order $I(2)$. Subsequently, this study performed the ADF and PP tests for all variables (*LEVENT*, *LTRECEIPT*, *LEXC*, *LGOVX*, *LCOP*) before proceeding to the ARDL approach. Based on the result presented in Chapter 4, the ADF and PP tests had a mixed order of integration which were at order $I(0)$ and $I(1)$. The cointegration between event demand and other independent variables were associated in the long-run by employing the ARDL technique. The independent variables were tourist receipts, the exchange rate, government expenditure and the crude oil price. The calculated F-statistics for event demand were outside the upper bound with a 1% critical value. Hence, this study accepted no cointegration by the null hypothesis. There is certainly a link between the variables (tourist receipts, the exchange rate, government expenditure and the crude oil price).

4.4.1 Tourist Receipts

The coefficient for the tourist receipts variable revealed that tourist receipts had a significant and positive long-run effect on event demand. In this study, tourist receipts were proxied by real personal income. Hence, the significant and long-run relationship between tourist receipts and event tourism demand was supported by similar findings from prior

empirical studies such as Mohd Salleh et al., (2007); Kadir et al., (2008); Mohd Salleh et al., (2008); Chaipitip and Chaiboonsri (2009); Hanafiah and Harun (2010); Habibi and Abbasinejad (2011); Muchhaponawa and Pimhidzai (2011); Surugiu et al., (2011); Asemota and Balla (2012); Deluna and Jeon (2014).

The results revealed that event demand and tourist receipts are positively correlated in the long-term. The more income generated from tourism sector, the more allocation will be available to develop tourism sector especially tourism event. This will subsequently attract more tourist. As the allocation to tourism increase, the event number will increase as well. Most of the events held in Malaysia that have the element of local culture, activities, occasions and resources. The size of the events hosted in recent years tend to become larger and are targeted for international visitors. Nowadays, it seems that visitors are more prefer in attending events that has local culture, sporting, music and entertainment. Events that tourists are likely to attend are Rainforest World Music Festival (RWMF), Le Tour De Langkawi, Colours of Malaysia, Sea Games, Malaysian F1 Grand Prix, Malaysia Water Festival and many more. Therefore, tourists that travel to Malaysia tend to do more spending on goods and services especially in buying the tickets for an event hosted if necessary, clothes, souvenir, local foods and drinks and others. This indicated that the higher tourist expenses on goods and services at the competitive destination, the demand of events staged in Malaysia tend to rise over the years especially major events that involved international visitors.

4.4.2 Exchange Rate

Consistent with the objective of this study, the coefficient for the exchange rate variable revealed that the exchange rate was significantly and positively related with event demand. Moreover, the results showed that the exchange rate and event demand were positively associated in the long-term and it was significant at the 5% level of significance. This implied that in the long-run the exchange rate becomes an essential variable of event demand. As Malaysia's exchange rate increases by 1% against the US Dollar this leads to an increase of 0.775% in event demand in Malaysia. This outcome of the study is consistent with tourism demand theory. The empirical results agree with prior literature (Mohd Salleh et al., 2007 and Mohd Salleh et al., 2008).

The results revealed that the exchange rate and event demand were positively correlated in the long-run. The positive relationship between the exchange rate and event demand indicates that as Ringgit Malaysia depreciate in value, foreign tourist can exchange more Ringgit Malaysia and this will subsequently attract tourists to come. International visitors might see themselves as wealthier when their currency appreciates. This will encourage more international travelers to spend more on goods and services in Malaysia. Indirectly, tourists may also become involved in events staged as they visit Malaysia. Tourists preferably attend and spend more on major events compared to local events which only involve mostly local people.

4.4.3 Government Expenditure

The coefficient for the government expenditure variable revealed that government expenditure is significant and positively correlated with event demand in the long-run. Hence,

the results showed that there is a significant and long-run association between government expenditure and event demand at 10% significance level.

Besides that, the tourism event promotion measure selected in this study is the government expenditure. A 1% increase in government expenditure in the long run leads to an increase in event demand in Malaysia of 0.625%. The outcome is parallel with the result of earlier empirical studies of tourism demand. The empirical results agree with prior literature (Kusni et al., 2003)

Additionally, Malaysia's event tourism has been influenced by the increases in government expenditure in the long-run. This implies that the involvement of the government in boosting tourism is associated with the development of events and festivals. This is because the government plays its role in maintaining infrastructure, promoting events and festivals; enriching the image of the destination and investing in facilities at the destinations. Noticeably, most of the events held nowadays are innovative, modern alike and expensive services. For example, the Rainforest World Music Festival is a local music event which also include modern instrument and facilities that has cater local and international tourists from different cultures. Besides that, sports event has also become significant activities in Malaysia. The activities that has involved competition or race tend to increase over the years especially badminton, regatta, golf, cycling and motor vehicle. These significant events have catered more tourist from different countries and spend more in Malaysia. Therefore, increases in government involvement have boosted the demand for events and festivals at the country's destinations.

4.4.4 Crude Oil Price

Based on the outcomes, the assessed coefficient for crude oil price showed there was a negative (- 0.756) sign which was statistically significant at the 5% level. This implies that in the long-run a 1% increase in the crude oil price will lead to a decrease of 0.756% in event demand. This result is parallel with earlier studies for event demand as a proxy in this study. The empirical results agree with prior literature (Chaitip & Chaiboonsri, 2009; Muchapondwa & Pimhidzai, 2011; Thien et al., 2015).

The crude oil price was identified to be negatively correlated with event demand in Malaysia. An increase in the crude oil price in the long-run will decrease event demand in Malaysia. This negative relationship can be clarified by considering that an increase in the crude oil price will indirectly increase transportation cost and airfares, which will discourage international visitors to travel to Malaysia. This is because tourists are very sensitive to changes in oil prices. Other than that, tourists may not have enough savings for them to travel. Hence, this will indirectly discourage tourists to attend activities, occasions and events hosted in Malaysia.

4.4.5 Diagnostic Checking

Diagnostic tests were conducted by computing the serial correlation, the heteroscedasticity, normality test, the RESET test and the CUSUM and CUSUM square tests. The outcomes of the diagnostic tests indicated that the model was in a correct functional form, well specified, residual is normally distributed, model does not suffer from autocorrelation problem, heteroscedasticity problem does not exist and was stable. The

empirical result is consistent with Mohd Salleh et al., (2007); Mohd Salleh et al., (2008); Chaitip and Chaiboonsri (2009); and Asemota and Bala (2012).

4.4.6 Granger Causality Test

Empirically, the estimated coefficient for the Granger Causality test showed that all the variables under study can Granger Cause event tourism demand in the short run. This implies that all the important variables (tourist receipts, the exchange rate, government expenditure, the crude oil price) can influence event tourism demand at the 1% and 10% levels of significance respectively.

4.5 Chapter Summary

This study tends to determine the connection between event tourism demand and its explanatory variables. Event tourism was chosen to be a dependent variable, while, the independent variables included tourist receipts, the exchange rate, government expenditure and the crude oil price. Tourism demand theory was applied in this study by using quarterly data from 1991Q1 to 2016Q4. The tests presented in this study are the unit root test and the ARDL model.

Based on the unit root test result, the obtained result of the ADF test and PP tests showed a mixed order of $I(0)$ and $I(1)$. Due to the different order of integration, the ARDL approach was employed to determine the presence of a long-run association for event demand in Malaysia. The error correction model was also applied to examine the short-run dynamic relationship.

The empirical results indicated that there is exists a long-term relationship between tourist receipts, the exchange rate, government expenditure, the crude oil price and event demand. This is because the F-statistic is greater than the critical value based on Narayan (2005). Narayan was chosen due to the small sample size of the study.

As expected, the assessed coefficient in the long-run association for tourist receipts, the exchange rate and government expenditure were significant and positively correlated towards event demand in Malaysia. However, the crude oil price influences event demand with a negative relationship. In the case of the short-run relationship measured by the error correction model, the result showed that the lagged error correction term for event demand in Malaysia was less than one, negative and significant. Besides that, over the short-run and long-run all of the diagnostic tests were passed which were the LM test for serial correlation, the normality test, the ARCH test, the RESET test and the stability test using the cumulative sum of the recursive residuals (CUSUM). In addition, based on the Granger Causality test, all the important variables, tourist receipts, the exchange rate, government expenditure and the crude oil price can influence event demand in Malaysia.

CHAPTER 5

CONCLUSION

5.1 Introduction

This chapter is divided into several sections. The initial part summarises the whole study and is followed by the significance of the study. Finally, it reveals suitable recommendations for future research together with the limitations of this research. This chapter is organised into five sections comprising Section 5.1 Introduction, Section 5.2 Conclusion of the study, Section 5.3 Policy Recommendations, Section 5.4 Future Research and Section 5.5 Limitations of the study.

5.2 Conclusion of the Study

The main objective of this study as discussed in the first chapter was to examine the determinants of event tourism demand in Malaysia. This study was conducted in Malaysia using quarterly data from 1991Q1 to 2016Q4. The dependent variable employed in this study was event demand as a proxy for tourism demand, while, the independent variables in this study consisted of tourist receipts, the exchange rate, government expenditure and the crude oil price.

The specific research objective of this study was “To examine the long-run relationship between tourist receipts, the exchange rate, government expenditure and event demand”. The second objective of the study was “To investigate the causality relationship between tourist receipts, the exchange rate, government expenditure, the crude oil price and

event demand”, while, the third objective of the study was “To examine the stability of event tourism demand in Malaysia”.

The ADF and PP unit root test were applied to examine the stationarity of the variables under study. The results of unit root test allowed this study to proceed to ARDL approach. The ARDL technique were employed to investigate the long run relationship between the variables under study. The causality of the variables was also estimated in order to examined the causality relationship of the variables. Besides that, diagnostic test was tested to ensure the robustness of the variables.

The finding of this research found that there were significant and long-run relationships existing between the variables under study. The finding showed a significant and positive relationship between event demand and tourist receipts at the 1% significance level. The empirical finding agreed with prior literature (Mohd Salleh et al., 2007; Kadir et al., 2008; Mohd Salleh et al., 2008; Chaipitip & Chaiboonsri, 2009; Hanafiah & Harun, 2010; Habibi & Abbasineiad, 2011; Muchhapondwa & Pimhidzai, 2011; Surugiu et al., 2011; Asemota & Balla, 2012; Deluna & Jeon, 2014).

Besides that, the finding showed a significant and positive relationship between event demand and the exchange rate at the 5% significance level. The empirical results agreed with prior literature (Mohd Salleh et al., 2007; Mohd Salleh et al., 2008).

Apart from that, the finding also showed a significant and positive relationship between event demand and government expenditure at the 1% significance level. The inclusion of government expenditure as a proxy for government allocation on event promotion and tourism infrastructure.

In addition, the crude oil price was also added into the model and the finding showed that there was a significant and negative relationship between event demand and the crude oil price. The empirical results agreed with prior literature (Chaitip & Chaiboonsri, 2009; Muchapondwa & Pimhidzai, 2011; Thien et al., 2015).

For the second research objective, the finding showed that there was a causality relationship among tourist receipts, the exchange rate, government expenditure, the crude oil price and event demand. The finding showed a causality relationship between event demand and tourist receipts at the 1% significance level. Besides that, the finding showed a causality relationship between event demand and the exchange rate at the 5% significance level. Apart from that, the finding showed a causality relationship between event demand and government expenditure at the 5% significance level. In addition, the finding also showed a causality relationship between event demand and the crude oil price at the 5% significance level.

For the third research objective, this study discovered that the CUSUM and CUSUM square stayed within the critical bound at the 5% significance level. This implied the stabilisation of event tourism demand in Malaysia. The empirical result was consistent with Mohd Salleh et al., (2007); Mohd Salleh et al., (2008); Chaitip and Chaiboonsri (2009); and Asemota and Bala (2012).

Furthermore, identifying the determinants of event tourism demand in Malaysia will assist in narrowing the knowledge gap which will be useful for the tourism related industries in implementing long term planning and strategies for events and festivals. Besides that, the model derived from this study can be used for the scholars as a new knowledge-base or reference for future studies in event tourism. This vital outcome could be beneficial to the

event planners and governments to promote events which can contribute to an increase in international visitors, increase spending among tourists, boost employment and generate economic growth. The economic benefits of successful events and festivals will stimulate the growth of tourism and non-tourism related business.

5.3 Policy Recommendations

The outcomes of this research showcase the existence of a beneficial relationship between the government and tourism industries, which can be further benefited from collaborative policies for tourism events.

Firstly, tourism income is an important variable that influences event demand in Malaysia, whereas an increase in tourism income will promote further allocation of funds for tourism events. This study suggests that there is a need to subsidise skilled, local event organisers in order to sustain tourism event development. The Malaysian government plays an important role in providing grants, subsidies and sponsorship, which should be closely monitored and aligned with the objectives set for tourism events. Government involvement and policy-making will be important in local and global strategies related to Malaysia's travel and tourism sector. For example, governmental funding and planning could result in an increase of major events that have greater potential for attracting an increased number of local and international tourists. Also, additional tourism events could later become an additional economic benefit to the country's income. Therefore, the tourism industry should enhance and strategise government's policies that can improve the travel and tourism industry in Malaysia.

Besides that, as for the exchange rate, if the exchange rate depreciates, this means the currency of the Ringgit Malaysia is appreciating. The tourists will need more dollar to exchange Ringgit Malaysia. If tourists feel the tourism event is satisfactory, then, the tourists will see the value of the money is worth.

Meanwhile, this study suggest that event planner should undertake their assessment in diversifying their events promotion to other countries in order to attract tourists from high generating tourist countries. Imposing a more diversified event hosting is more preferable to attract tourist from different countries despite only focusing on targeted high tourist arrivals countries into Malaysia. Hence, such events will boost economic performance and satisfying tourist arrivals.

Other than that, another strategy was undertaken which are upgrading the connectivity and transportation services. Enhancing transportation connectivity such as increase taxi services or Grabs, Light Rail Transit (LRT) and buses. With this connectivity, the travelling would be better and quicker for the visitors that intend to visit from one place to another. Hence, tourists will find it easier to attend and involve in various events.

In addition, government involvement is an important factor that influence event tourism demand. Empirical finding suggests that the government, Malaysia Tourism Promotion Board should improve their service quality and upgrade brand image in order to attract investor to provide investment in tourism area. The incentives for tourism events to significantly expand tourist participation, including through the use of conservation areas such as national parks, heritage protection areas, rainforest and also tourism service provider which are hotels, restaurants and tourist operators. More should be done in encouraging the private investors and large corporations to invest in the development of the tourism sector.

This will also give opportunities to the authorities to finance more in hosting events, especially bigger events. Therefore, the government involvement will indirectly boost economic growth and create job opportunities.

Furthermore, tourism event policy has an important influence as a foreign exchange earner, a profit or income contributor for economic growth, enhancing trade, attracting tourists to visit, attracting corporations to invest and providing large employment opportunities and benefits to all Malaysian citizens or local communities. Thus, tourism event policy may help to increase the number of visitors or tourists to Malaysia. The tourism events policy may also guide other tourism development, products, operations and management to achieve the Government's immediate and long-term objectives for tourism by the year 2030 agenda of sustainable development. The policy, based on the principles of the 17 sustainability development goals (SDGs), which are Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all, Goal 12: Ensure sustainable Consumption and Production patterns and Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development. These policies are in line with local governments, public and private partners, development banks, international and regional financial institutions, the UN agencies and international organisations, UNWTO best practices to ensure the achievement of these global goals.

5.4 Future Research

For future researchers, uncertainties can be overcome once more research has been conducted using more determining factors and a deeper scope to achieve a more holistic

understanding of event demand. The following suggestions for future research are proposed based on the findings of this research.

To this extent, tourist attendance may be captured during the events staged or hosted. Tourist attendance is the number of tourists who attended each and every event being hosted in Malaysia. The inclusion of tourist attendance during the event may attain a more significant and reliable outcome.

Besides that, different approaches such as forecasting the various events in Malaysia could be carried out so that future scholars may use this approach as a medium to study a narrower event tourism study such as sports; music; culture and history; arts; entertainment and recreation; political and government; education and business, trade and corporate.

Many academics are contributing event tourism information articles in developed countries. However, there is a lack of study on event tourism in Malaysia. Therefore, this study recommends increasing the number of event tourism articles not only in economics but also in sociology, finance, marketing, management, and other mainstream publications. A broad range of methods with professional fields are suitable for creating knowledge and developing theory in event tourism.

5.5 Limitations of the Study

In order to complete this research, a number of limitations were faced in this study. The first limitation of this study was the lack of availability of data on event tourism in Malaysia. There was no data available provided by the Ministry of Tourism. The data provided by the Ministry of Tourism was in the form of different booklets published annually in different forms and formats. Besides that, the raw data provided was not in one form of

record. The Calendar of Events published annually had different forms of format. The listed events in the Calendar of Events from 1990 to 2015 was not consistently presented every year. The raw data recorded in the Calendar of Events for 1990 to 2008 included all types of events staged such as royal birthday celebrations, religious festivals and so forth. Consequently, the condition of the raw data from 2009 to 2015 was different where only mega-events, hallmark-events and major events were included. This data was important in identifying the number of events hosted in Malaysia.

Moreover, another limitation of this study was the data for government expenditure in the tourism industry. There was no specific data for government expenditure in the tourism industry provided in the annual report. It would be more valid if data for government expenditure in the tourism industry were included in the analysis. This data is important in estimating event tourism study.

Lastly, this research would be improved if the number of tourists who attended the events could be captured. However, there was no data available on tourist attendance at each event being staged in Malaysia. Tourist attendance is important in event demand analysis to attain more valid and reliable results.

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APPENDICES

Table 1: Summary of Literature Reviews of Related Tourism Demand in Multiple Countries

Author(s)	Methodology	Data	Finding(s)
Chaitip and Chaiboonsri (2009)	- Unit root test - ARDL approach to cointegration	Country: Thailand, Singapore, Korea, Taiwan, Japan, UK, China and USA. Sample period: 1997 Q1 to 2005 Q2 Data frequency: Quarterly data Variables used: Tourist arrivals, the price of goods and services, GDP, the exchange rate and transportation costs. (Source: Thailand's tourism organisation)	- The findings showed that high income growth is positively correlated towards international tourist inflows in the long-run. - There are negative impacts between the exchange rate, poor transportation cost and the exchange rate risk towards Thailand's tourist inflows. - Low temperature and the arrival of tourists to Thailand are negatively correlated.
Muchapondwa and Pimhidzai (2011)	ARDL approach to cointegration	Country: Zimbabwe Sample period: 1998 to 2005 Data frequency: Annual data Variables used: International tourism demand, taste formation, domestic prices, foreign prices, income and transportation costs. (Source: Central Statistical Office (CSO))	The result showed that there are significant impacts from taste formation, transportation costs, growth in income and events held towards the demand for international tourism.

Table 1 continued

Author(s)	Methodology	Data	Finding(s)
Surugiu, Leita and Surugiu (2011)	- Fixed-effect model - Tobit model	Country: Romania, The Netherlands, Austria, Poland, Belgium, Portugal, Bulgaria, Czech Republic, Denmark, UK, Switzerland, Slovakia, Finland, Slovenia, France, Spain, Germany, Sweden, Ireland, Turkey, Italy, Luxembourg, Hungary, Norway, Sample period: 1997 to 2008 Data frequency: Annual data Variables used: International tourist arrivals, GDP, trade, population, distance and price	- The empirical results showed that Romania's tourism inflow is influenced by trade, population, GDP and prices for the fixed effects static panel model. - While, for the Tobit model, Romania's tourism flow is affected by population, GDP, trade, distance and prices.
Asemota and Bala (2012)	Error correction model	Country: Japan, USA, Canada, UK, Germany and Australia. Sample period: 1962 to 2009 Data frequency: Annual data Variables used: Tourist arrivals, GDP per capita, price. (Source: Statistics on tourism for Japan, Ministry of Justice of Japan, UN database, World Bank database, IMF International Financial Statistics)	The empirical outcomes indicated the existence of a long-run association between GDP, price and tourist inflows.

Table 1 continued

Author(s)	Methodology	Data	Finding(s)
Deluna and Jeon (2014)	Augmented Panel Gravity model	Country: Philippines, Hong Kong, Australia, Korea, USA, Japan, China, India, Thailand, Indonesia, France, Canada, Saudi Arabia, Switzerland, the Netherlands, Malaysia, Sweden, UK, Vietnam, Norway, Italy, Spain, Germany and New Zealand. Sample period: 2001 to 2012 Data frequency: Annual data Variables used: Tourist arrivals, income, population, bilateral distance, relative price of tourism, the relative real effective exchange rate and relative prices of tourism in competing destination countries. (Source: Philippines Statistical Yearbook, Department of Tourism, World Bank and Centre d'Etudes Prospectives et d'Informations Internationales (CEPII))	- The finding of the study showed that a high income in the tourist's origin country had a positive and significant towards tourist inflow. - However, there is no effect of goods and services prices and relative low prices of tourism towards attracting inbound tourists. - Besides that, the relative prices of competing tourist destination eg, Thailand, Malaysia and Indonesia showed no influence towards the demand for tourism for the Philippines.

Table 1 continued

Author(s)	Methodology	Data	Finding(s)
Hor (2015)	• Unit root test • ARDL bounds testing approach	Country: Cambodia, Malaysia, Australia, Japan, UK, Thailand, USA, Italy and Vietnam Sample period: 1994 to 2013 Data frequency: Annual data Variables used: Tourist arrivals, tourism price level, unemployment and population. (Source: CEIC database, World Development Index and Ministry of Tourism, Cambodia annual report)	• The result showed that GDP, high population and unemployment growth were positively correlated with the tourist inflow. • The result for the USA was slightly different where low population, low population growth over previous financial year and unemployment rate were negatively correlated towards tourist inflow from the USA.
Mamula (2015)	• Seasonally naïve model • Multiple regression models. • The seasonal autoregressive integrated moving average model (SARIMA) • Holt-Winter triple exponential smoothing model	Country: Croatia Sample period: 2003Q to 2013Q4 Data frequency: Quarterly data Variables used: Tourist arrivals (Source: Croatian Bureau of Statistics)	• The most accurate forecast results were tested using the multiple regression model for the arrival of tourists from Germany into Croatia.

Table 2: Summary of Literature Review of Related Tourism Demand in Malaysia

Author(s)	Methodology	Data	Finding(s)
Mohd Salleh, Othman and Ramchandran (2007)	- Unit root test - ARDL approach to cointegration	Country: Malaysia, Japan, Australia, Singapore and Hong Kong. Sample period: 1970-2004 Data frequency: Annual data Variables used: Tourist arrivals, travelling cost, tourism price, income, tourism price at alternative destination and the exchange rate. (Source: Department of Statistics, Malaysia)	The findings showed that in the long-run the cost of travelling to Malaysia, Malaysia's tourism price, income and the price of tourism at competitive destination became vital factors of Malaysia's tourism demand.
Mohd Salleh, Siong-Hook, Shuib and Noor (2008)	ARDL bounds test approach	Country: Malaysia Sample period: 1970 to 2004 Data frequency: Annual data Variables used: Tourist arrivals, travelling cost, tourism price, income, substitute price and the exchange rate. (Source: Annual Statistical Report)	The long-run empirical findings showed that the major factors of tourism demand in Malaysia are the cost of travelling to Malaysia, the price of tourism, substitute price and income.

Table 2 continued

Author(s)	Methodology	Data	Finding(s)
Habibi et al. (2009)	• GMM-DIFF	Country: Malaysia, Singapore, Thailand, Indonesia, Brunei, China, Japan, Australia, United Kingdom, India, Philippines, United States, Hong Kong, Germany, France and South Korea. Sample period: 1995 to 2005 Data frequency: Annual data Variables used: Tourist arrivals, income, population, relative prices and transportation costs. (Source: Annual Statistical Report)	• The empirical results showed that price and the number of arrivals was negatively correlated and it was significant. This indicated that an increase in prices would discourage the arrival of tourists into Malaysia.
Hanafiah and Harun (2010)	• Gravity model	Country: Malaysia, Australia, Hong Kong, Indonesia, United Kingdom, Thailand, Taiwan and China. Sample period: 1993 to 2007 Data frequency: Annual data Variables used: GNI, tourist arrivals, tourist receipts, trade and the exchange rate. (Source: Tourism Malaysia report)	• The findings showed that high rates of population, high income, lower inflation and a shorter destination are significantly related with tourist inflow into Malaysia. • However, the economic crisis and tourist inflow from the ASEAN nations were negatively correlated except for western nations.

Table 2 continued

Author(s)	Methodology	Data	Finding(s)
Habibi and Abbasinejad (2011)	GMM estimator	Country: Malaysia, UK, Germany, France, the Netherlands, Sweden, Finland, Italy, Portugal, Switzerland, Denmark, Spain, Russia, Norway, Ireland, Poland, Austria, Turkey, Belgium and Luxembourg. Sample period: 1998 to 2008 Data frequency: Annual data Variables used: Tourist arrivals, political stability, income, substitute price, hotel room and tourism price. (Source: Ministry of Tourism Malaysia, International Financial Statistics, World Tourism Organization, Kaufmann)	The empirical findings showed that Malaysia's tourism demand was positively influenced by political stability, habit persistence (word-of-mouth), hotel room and income.
Kusni, Kadir and Nayan (2013)	- Fixed effects model - Random effects model	Country: Malaysia Sample period: 1995 to 2009 Data frequency: Annual data Variables used: Tourist arrivals, tourism price, real personal income and substitute price. (Source: Malaysia Tourism Promotional Board, Malaysia Department of Statistics, Bank Negara Malaysia and IMF Statistical Book.	- The empirical finding showed that the demand of tourist's inflow and the relative price are highly elastic. - Singapore is relatively a substitute destination for Malaysia when comparing the substitute price among the OECD countries. - Apart from economic factors, the non-economic factors (SARS and global economic crises) also played their role in urging tourism demand.

Table 2 continued

Author(s)	Methodology	Data	Finding(s)
Ooi et al. (2013)	Fixed effect	Country: Malaysia Sample period: 2001 to 2009 Data frequency: Annual data Variables used: Tourist arrivals, tourism crises. (Source: World Bank Database, Malaysia Tourist Profile)	The empirical result showed that some Malaysian states namely, Selangor, Penang, Malacca and Pahang were listed to be high demand tourist which had a significant and negative relationship with crises of tourism.
Kadir, Abdullah and Nayan (2008)	- Fixed effects model - Ordinary Least Square (OLS) - Random effects model	Country: Malaysia, USA, United Kingdom, Germany and Japan. Sample period: 1994 to 2004 Data frequency: Annual data Variables used: tourist arrivals, real gross domestic product, living cost and price of tourism in the substitute destination. (Source: Annual Report of Bank Negara Malaysia, Statistical Yearbook and IMF International Financial Statistics Yearbook)	The finding showed that the inbound tourists from four industrial countries were significantly influence by tourist's income from their origin country and the tourism price in the substitute destination which was the Philippines.

Table 2 continued

Author(s)	Methodology	Data	Finding(s)
Thien, Puah, Hassan and Arip (2015)	• ECM	Country: Malaysia Sample period: 2000 Q1 to 2013 Q4 Data frequency: Quarterly data Variable used: Thailand's tourist arrivals, real income, travel cost and exchange rate. (Source: Tourism Malaysia, International Financial Statistics (IFS), International Monetary Fund (IMF), Global Economic Monitor.	• The empirical findings showed the presence of long-run association between Thailand's tourism demand and the independent variables employed in the study.

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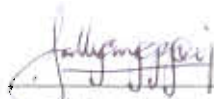
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