

**Medical tourism in Malaysia: an investigation of the
destination branding factors and its influence on the behaviour
of medical tourists**

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Abstract

The steady growth of the medical tourism industry has made it one of the most attractive and economically viable tourism sectors for host destinations. Asian Pacific countries such as Thailand, Malaysia, India and Singapore have been the beneficiaries of the medical tourism boom around the region. As a result, destinations compete for a share in the market by improving the quality of medical infrastructures, providing medical services at a competitive price and promotional strategies to attract medical tourists to the destination. Hence, the current study investigates how destination branding factors influence the perception of medical tourists to revisit or recommend a destination to others.

To achieve the study aim, a destination branding model for medical tourism was developed based on Keller's (2001) Consumer-Based Brand Equity (CBBE) model. The data for this study is collected through face to face administered questionnaire across different medical facilities in Malaysia. A total of 430 useable questionnaires were gathered and Structural Equation Modelling applied to examine the perception of medical tourists towards a destination.

The findings for the current study reveal that destination brand satisfaction has a positive direct impact on loyalty. Hence, medical tourists perceive satisfaction as an important attribute that leads to revisiting and recommending the destination to others. Moreover, medical tourists perceived destination brand quality to have a positive impact on satisfaction of the destination. Further tests of the mediating relationship reveal that satisfaction positively mediates the relationship between quality and loyalty. Therefore, this study highlights the importance of medical tourists' satisfaction in their decision to revisit and recommend the destination to others.

The results also reveal that medical tourists' emotional responses (affective image) or feelings towards a destination have a positive impact on their satisfaction and decision to revisit and recommend to others. Additionally, conative image was found to have an impact on medical tourists' decision to revisit and recommend the destination. Moreover, this study tested the sub-constructs of cognitive image (essential, appealing and attractive conditions) to determine the extent of their impact on both satisfaction and loyalty. The results show that while attractive conditions are insignificant, only appealing conditions have an impact on satisfaction and only essential conditions have an impact on loyalty.

The current study also investigated the likely impact of destination brand awareness on both destination brand satisfaction and loyalty. Even though CBBE models consider awareness as an important aspect of destination branding and have shown a considerable impact on revisit intentions, this impact was not applicable to medical tourists. Medical tourists did not find awareness be an important factor in determining their satisfaction and loyalty towards a destination.

The present study provides significant theoretical contributions such as development of an integrated destination branding model for medical tourism. Additionally, the testing of different constructs of destination image and sub-constructs of cognitive image to determine their impact on satisfaction and loyalty. Practical implications, limitations of the study, and directions for future research are also presented.

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Declarations

This contains no material which has been accepted for the award to the candidate of any other degree or diploma, except where due reference is made in the text of the examinable outcome. To the best of my knowledge, it contains no material previously published or written by another person except where due reference is made in the text of the examinable outcome.

A handwritten signature in blue ink, appearing to read 'Stanley Nwobodo', is centered within a light gray rectangular box. Below the box is a horizontal dashed line.

Stanley Nwobodo, August 2020

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Chapter One: Introduction

This chapter introduces the concept of medical tourism by first presenting the global overview of medical tourism and Malaysia as a unique destination of interest for medical tourists. The concept of destination branding is also introduced with justification on why rebranding Malaysia will help the country stand out as a destination of choice for medical tourism. Furthermore, research questions generated as a result of close examination will be presented as well as the significance of study.

1.1 Background study on medical tourism

Medical tourism is a growing phenomenon in the tourism industry that represents a new market segment due to changing times and consumer perception (Yu & Ko 2012). The travel for health related issues is not new and has long been recorded in various studies (Hall 2011; Connell 2013). Medical tourism has been around since ancient times when ancient Egyptians and Greeks visited the hot springs and baths for health improvement (Ben-Natan, Ben-Sefer & Ehrenfeld 2009; Bookman & Bookman 2007). From the 20th century, individuals from less developed countries started travelling to major medical centres in the United States and Europe for medical services as a result of the unavailability of medical facilities in their home countries (Bookman & Bookman 2007; Horowitz et al. 2007; Smith & Puczko 2008). More recently, the situation has changed as people from major developed nations are moving to developing countries for medical services. They bypass medical services offered in their home country because it's either undesirable or inaccessible to them (Horowitz et al. 2007; Simpson 2017; Ben-Natan et al. 2009). Ben-Natan, Ben-Sefer and Ehrenfeld (2009) explained that travelling to receive medical treatment such as cosmetic surgery, dental surgery and other complex procedures is a new phenomenon that generally started in the 1980s. Today, such travels are increasingly common as patients seek affordable healthcare option and/or options other than those offered in their home country (Horowitz et al. 2007; Smith & Puczko 2008; Hall 2011; Bookman & Bookman 2007).

Yet, there is no one accepted definition of medical tourism. For example, a number of studies defined medical tourism as international travels for medical treatment excluding the tourism as an aspect of the industry (Bookman & Bookman 2007; Cormany & Baloglu 2011; Kim,

Arcodia & Kim 2019), while others note that leisure tourism constitutes an important aspect of medical tourists travel (Heung, Kucukusta & Song 2010; Cohen 2008; Connell 2006; Caballero-Danell & Mugomba 2007). Additionally, some studies have used health tourism and medical tourism interchangeably as representing individuals travelling outside their country for health related issues (Alsharif, Labonte & Lu 2010; Reddy, York & Brannon 2010), whereas others have used medical travels to also mean medical tourism (Whittaker 2008; Cormany & Baloglu 2011). Table 1.1 presents some of the definitions of medical tourism from extant literature.

Table 1.1: Medical tourism definitions

Author(s)	Definition
Goodrich (1993, p. 37; 1994, p.228)	... as the deliberate attempt on the part of a tourist facility (e.g., hotel) or destination (e.g., Kuala Lumpur, Malaysia) to attract tourists by promoting health-care services and facilities in addition to regular tourist amenities.
Hall (2003, p. 274)	... as commercial phenomena of industrial society which involves a person travelling overnight away from the normal home environment for the express benefit of maintaining or improving health, and the supply and promotion of facilities and destinations which seek to provide such benefits
Reddy, York and Brannon (2010, p. 511)	... as the act of travelling abroad to obtain various types of health and wellness treatments
Carrera and Bridges (2006, p. 449)	... as organised travel outside one's natural health care jurisdiction for the restoration of the individual's health through medical intervention
Whittaker (2008)	... as patients leaving their country of residence outside of established cross-border care arrangements made with the intent of accessing medical care, often surgery, abroad
Snyder, Crooks and Johnston (2012)	... as a practice, whereby individuals travel across national borders with the intention of receiving medical care
Johnston, Crooks and Snyder (2012, p. 1)	... as an international movement of persons across international borders to seek medical care that has been privately purchased and arranged for
Crooks et al. (2010)	... as travel abroad with the intention of obtaining non-emergency medical services.
Heung, Kucukusta and Song (2010, p. 236)	... as a vacation that involves traveling across international borders to obtain a broad range of medical services. It

	usually includes leisure, fun, and relaxation activities, as well as wellness and health-care service
Jagyasi (2008)	... as the set of activities in which a person travels often long distance or across the border, to avail medical services with direct or indirect engagement in leisure, business or other purposes'
Connell (2006, p. 1094)	... as constituting a form of popular mass culture whereby individuals travel long distances to obtain medical, dental, or surgical services while being holidaymakers in the more conventional sense
Lunt et al. (2011, p. 7)	... as a particular form of patient mobility, where patients travel across borders or to an overseas destination to receive treatments including fertility, cosmetic, dental, transplantation and elective surgery
Wongkit and McKercher (2013)	... as the travel of people to a specific destination to seek medical health that forms the primary purpose of their trip

Some other studies have mostly referred to medical tourism either as international travel to a destination for medical care (Balaban & Marano 2010; Frederick & Gan 2015; Abubakar & Ilkan 2016; Chuang et al. 2014; Connell 2013; Yeoh, Othman & Ahmad 2013), or as travel for the sole purpose of health improvements (Bookman & Bookman 2007; Hunter 2007).

The present study will adopt the definition by Heung, Kucukusta and Song (2010) which presents medical tourism as international travels for the purpose of medical services and leisure activities. The definition encompasses a more holistic view of medical tourism and has been utilised by other studies (Connell 2013; Pocock & Phua 2011; Heung, Kucukusta & Song 2011). The combination of both medical services and leisure activities is a characterisation of medical tourism destination. Pan and Chen (2014) suggested the importance of meeting the needs of medical tourists through combined satisfactory services of quality healthcare, and leisure tourism. Meanwhile, Yu and Ko (2012) explained that medical tourism not only involves travelling abroad for medical treatment, but also a search for destinations that have the most technical proficiency, the most competitive prices and leisure. Hence, the current study explains medical tourism as international cross border travel for medical services and leisure tourism.

A report by Allied Market Research categorised the medical tourism market based on treatment types, which includes; dental, orthopaedic, cosmetic, fertility, cancer, neurological, and other general treatments (Gill & Sumant 2019). Three major motivations were found to be key for medical tourists' travels, these are; to avoid: 1) long waiting time, especially for patients requiring surgical procedures, 2) lack of healthcare infrastructure or skilled services providers which might result in low quality or unavailability of the necessary treatment, and 3) high cost or affordability of medical services (Gill & Sumant 2019).

The rapid increase in outbound medical tourism has been a major contributor to the growth of inbound medical tourism around the world. Outbound medical tourism is a form of medical tourism that involves people leaving their country of residence to a different destination for medical care (Thompson 2012). For instance, from a Malaysian provider's point of view, outbound medical tourism involves a Malaysian based patient taking a trip overseas to receive medical treatment. The results of having patients leave their country for medical treatment overseas is the reason why inbound medical tourism exists in other countries (Thompson 2012). An illustration is the recent report which shows that although Australia attract medical tourists for quality services, about 15, 000 Australians seek less expensive medical services abroad (Margo 2019). Additionally, a report published by the World Travel & Tourism Council (WTTC) shows that the United States has the most outbound medical tourist in the world, spending a total of USD 2.32 billion in 2017. Kuwait and Nigeria are in second and third spot, spending about USD 1.56 billion and USD 783 million respectively (Jus & Turner 2019). The US figure highlights the cost of medical services in United States which drives patients to seek treatment outside the country.

This increase in outbound medical tourism was also seen in a review of the travel issue by Britt (2012), who mentioned that the United States has the most expensive medical treatment system in the world, with comparable medical procedures performed in other countries for up to 70-80 per cent less. As a result, outbound medical tourism has been on the rise. For instance, data from the Medical Tourism Association shows that hip replacement surgery in the United States typically costs around USD 40,000, compared to India and Malaysia which can cost USD 7,000 and USD 8,000 respectively. Heart bypass surgery in the United States costs about USD 123,000 which is 90 per cent more expensive than in Malaysia, where it costs around USD 25,000 and 95 per cent more expensive than in India where it only cost about USD 8,000

(Harper 2019; Medical Tourism Association 2019). Consequently, Dalen and Alpert (2019) estimate that more than 1.4 million Americans travelled to different countries for medical tourism in 2017, which is a significant increase from 750,000 American medical travellers in 2007. Globally, Patients Beyond Borders estimates shows that about 11 million patients travel globally for medical treatment (Munro 2016), whereas Dalen and Alpert (2019) report that 14 to 16 million medical tourists travelled in 2017 for various medical services.

In Asia, the lack of access to quality medical facilities in China, especially for people living in rural areas, and disparities between the rural and urban clinics in addition to lack of trust in doctors and healthcare system, are some of the reasons driving growth of outbound medical tourism (Ouarit 2019; Pan & Moreira 2018). The Shanghai Medical Tourism Products and Promotion Platform estimated that each year approximately 60,000 Chinese travel abroad in search of various medical services such as; cancer screening and treatment, anti-aging therapy, giving birth and chronic disease treatments (Medical Tourism Magazine 2015). Similarly, Indonesia has both a shortage of healthcare facilities and services especially low cost ones, and insufficient government support. These factors hinder the development of public healthcare facilities and have become the main reason for the country's outbound medical tourism (Spire Research and Consulting 2013). Subsequently, Indonesians spend about USD 11.5 billion yearly on medical services overseas, with Malaysia the preferred destination of these tourists (Spire Research and Consulting 2013; Connell 2013). This might also be as a result of geographical proximity as Indonesia shares border with Malaysia.

Table 1.2 below explains the difference between outbound and inbound medical tourism with illustrations.

Table 1.2: Difference between outbound and inbound medical tourism

Concept	Definition	Studies
Inbound medical tourism	It is a form of medical tourism that involves people arriving at a different destination other than their home country for medical treatments. For instance, from a Malaysian provider's point of view, inbound medical tourism involves an Indonesian patient taking a trip to Malaysia for medical treatment.	(Thompson 2012; Connell 2013; Medhekar, Wong & Hall 2019)

Outbound medical tourism	Outbound medical tourism is a form of medical tourism that involves people leaving their home nation to a different destination for medical treatment. For instance, from a Malaysian provider's point of view, outbound medical tourism involves a Malaysian based patient taking a trip overseas to receive medical treatment	(Collins et al. 2019; Thompson 2012; Connell 2006)
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In some developing countries, medical tourism may provide a major revenue stream (Thompson 2012; Venkatesh 2015). Thus, the economic benefit the industry presents is enormous. Countries such as India, Malaysia, Singapore, South Africa, Thailand, and Mexico offer a variety of good quality medical services at a relatively low cost compared to some developed countries (Ormond, Mun & Khoon 2014; Gill & Sumant 2019). The medical tourism industry in Asia has received different forms of support from their respective governments. As a result, the inbound medical tourism industry is among major revenue streams for some countries (Gill & Sumant 2019; Ormond, Mun & Khoon 2014). Spire Research and Consulting, report that the Governments of Singapore, Malaysia, Thailand, and India support the industry by relaxing and improving visa regulations for patients and their travel partners (Spire Research and Consulting 2013; Ormond, Mun & Khoon 2014). Table 1.3 presents specific incentives provided by some of the governments in Asia to increase medical tourism.

Table 1.3: Some Asian Government incentives for expansion of inbound medical tourism

Country	Incentives for expansion of inbound medical tourism	Source
Malaysia	Conversion of an emergency visa to an extended up to six months visa	(Spire Research and Consulting 2013)
Singapore	Visa extension capped at 89 days from the date of arrival	(Spire Research and Consulting 2013)
Thailand	Creates smart visa with extension between one to three months for certain countries. Government also invests 14 per cent of total budget (accounts for about 4.6 % of GDP) on healthcare industry which is considered the highest in ASEAN.	(Thailand Investment Review 2016; Koh 2019)
India	Introduced e-visa schemes, medical visa (M-Visa) and visa on arrival. Declared	(Medhekar, Wong & Hall 2014, 2019)

	India a global health destination by sponsoring the “Incredible India Campaign”.	
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The availability of quality healthcare facilities and infrastructure development through government support has resulted in low cost and high quality healthcare services. Thus, resulting in Asia becoming one of the most prominent regions for medical tourism over the past few decade (Reddy, York & Brannon 2010; Ormond, Mun & Khoon 2014). The four major destinations in Asia are India, Thailand, Malaysia, and Singapore where medical tourism is dependent on and supported by government infrastructures (Venkatesh 2015). Although Singapore is more expensive compared to the others, it is still a cheaper alternative to patients from western countries. It provides low cost medical treatment with high quality healthcare facilities which are the reason why these destinations are dominating the medical tourism industry in Asia (Venkatesh 2015).

These major countries provide different range of medical treatments. Statistics shows that each country specialises in different medical service and has attracted medical tourists from different countries to their respective destinations. For example, Thailand had been the most popular destination for cosmetic and bariatric surgeries, and attracted approximately 2.4 million and 2.8 million foreign patients in 2017 and 2018 respectively, a significant increase over the past five years (Grand View Research 2020a 2020b; Koh 2019) Similarly, Singapore is known for its high quality complex neurological procedures, cardiac surgery, and joint replacement. Medical tourism in the country (Singapore) is still growing and attracted about 850,000 patients in 2012 (Venkatesh 2015; ASEAN Today 2017). India is a well-known destination for cardiovascular and orthopaedic procedures, attracting medical tourist from different parts of the world (Wood 2019). Meanwhile, Malaysia has been gaining popularity due to the availability of modern healthcare infrastructure and the presence of highly skilled medical professionals (Gill & Sumant 2019; Ormond, Mun & Khoon 2014).

The success of these destinations in attracting medical tourism over the years has also being attributed to the confidence and trust of the patients due to the high quality medical facilities. Medical tourists mostly visit the medical centres that have been accredited by an international accreditation body such as the Joint Commission International (JCI). Each of the destinations

has tens of medical centres accredited to provide medical services to international patients. Singapore has eight JCI - accredited medical centres, Malaysia has 16, India has 34, and Thailand has 62 (Joint Commission International 2020). These accreditations give added confidence in the quality of the treatment and equipment available at these destinations.

There are various reports with varying estimates of the value of the global medical tourism industry. Gill and Sumant (2019) estimates the value of the medical tourism industry to be USD 53.8 billion. The report forecast that the value will be at USD 143.5 billion by 2025, which represents 12.9 per cent increase. Grand View Research (2020a, 2020b) estimates the industry to be worth USD 44.8 billion. The report also forecasts an annual growth rate of 21.1 per cent, which will make the industry to be worth USD 207.9 billion by 2027. Ugalmugle (2019) provided a very low market value (USD 19 billion) of the industry compared to the other reports, with the expectation that the industry will grow at 6.5 per cent yearly by 2025. Wood (2019) reports that the industry will grow to USD 179.6 billion by 2026, whereas Phoenix Research (2020) reports an anticipated grow of USD 139 billion within the same period. More recently, Patients Beyond Borders (2020) estimated the industry to be worth between USD 79-92 billion, with an approximate of 21 to 26 million medical tourists travelling to different destinations for medical services. However, given that the world is currently in the middle of a pandemic, this is quite prescient as there is a global drop off in medical tourism and tourism in general. This is because movement has been restricted and borders closed to tourists around the globe. Although there have been varying reports on the actual value and growth rate of the industry because of challenges in gaining reliable data, the estimated value of the industry and the future forecast presents a substantial future growth for the medical tourism industry.

Subsequently, even though the major stated reason for medical tourist travel is to obtain medical services, some medical tourists and their partners also use the time for holidays and leisure. Thailand is considered a home to sun kissed beaches and gold spired temples apart from its world class medical facilities (Venkatesh 2015). Venkatesh (2015) noted that the pristine beaches and green surroundings offer patients a natural way of healing after complex surgeries. A survey conducted by KPMG and FICCI noted that apart from excellent medical facilities, India also has ancient temples and beaches for relaxation of patients following treatments (Venkatesh 2015). Medical tourist destinations do provide options for leisure

activities following medical treatments and that is another way to attract international patients and their partners.

Considering the positive growth prospects surrounding this industry over the past few years, this study will focus specifically on inbound medical tourism to Malaysia.

1.2 The need for destination branding of medical tourism

Consumers are generally aware of the availability of various destination choices for medical tourism that provide similar features such as quality healthcare services, beautiful scenic view, and friendly staff (Milman & Pizam 1995; Konecnik & Gartner 2007). This implies that destinations need to be differential and unique to be selected as a final decision by target consumers (Pike 2015). Keller (2003) argued that since consumers have a lot of choice for goods and services, effective branding will help the consumers simplify decision-making, by reducing purchase risk, and at the same time enabling marketers to create and deliver expectations in a way that is unique in comparison to rivals. Destinations have emerged as the biggest brands in the tourism industry; hence, becoming unique will be an advantage (Morgan, Pritchard & Pride 2002).

Blain, Levy and Ritchie (2005, p.337) arguably provided the most comprehensive definition of destination branding where they regarded it as:

“... a set of marketing activities that supports the creation of logo, name, word mark, symbol or other graphic that readily identifies and differentiates destination; consistently convey the expectation of a memorable travel experience; serve to consolidate and reinforce the emotional connection between the visitor and the destination; and reduce consumer search costs and perceived risk.”

They went further to suggest that the above activities serve to create a destination image that positively influences consumer destination choice (Blain, Levy & Ritchie 2005).

The definition is the most comprehensive destination branding definition and has been used in numerous destination branding studies (Pike et al. 2010; Bianchi & Pike 2011; Miličević, Mihalić & Sever 2016; Das & Mukherjee 2016). It accounts for both the demand and supply perspectives of an industry, with effective differentiation of brands that might lead to an increased intention to purchase and an ability to recommend (Pike 2009; Pike et al. 2010). Destination branding has proved to be a significant development in the marketing of

destinations (Pike 2015; Morgan & Pritchard 2004). Pike (2015) noted that it has become the most sought-out topic amongst marketing professionals and decision-makers worldwide. The concept of destination branding is critical for a destination to be identified and differentiated from alternatives in the minds of target consumers (Cai 2002; Kubu et al. 2002; Pike 2009; Qu, Kim & Im 2011). This study will focus on analysing Malaysia's destination branding for medical tourism.

The rapid growth of medical tourism around the globe has spurred academic interest in exploring the phenomenon. This growth can be attributed to the fact that health care costs are skyrocketing, wages are stagnating, especially in developed countries, and as such, there is a need for patients to look overseas for medical treatment (Connell 2006). Additionally, governments in different destinations have made aggressive efforts to market medical tourism and have provided substantial support to promote the industry in their respective countries (Dahlui & Aziz 2012). The Malaysian government is among such governments and has provided support to the industry through subsidies and high-quality medical infrastructure. A recent report indicated that the government will allocate MYR25 million in 2019 through MHTC, to promote the industry and strengthen Malaysia's position as a preferred destination for medical tourism (Su-Lyn 2019).

The medical tourism industry in Malaysia is gaining more recognition globally for its affordable quality medical services with 16 of its medical centres and hospitals earning Joint Commission International (JCI) certification (Joint Commission International 2020b; Murphy 2016). The Malaysia Healthcare Travel Council (MHTC) estimated that the country attracted about 1.2 million medical tourists in 2018, generating revenue of approximately USD350 million (MYR1.5 billion) and GDP contribution of about MYR6 billion (Koumelis 2019; Malaysia Healthcare Travel Council 2020). A report by the International Medical Tourism Journal (IMTJ) shows that about 80 per cent of Malaysia's medical tourists came from neighbouring countries, including Singapore and Thailand (George 2016). Malaysia's main market for medical tourism still remains neighbouring Indonesia, responsible for 62 per cent of the total number of healthcare visitors and revenue. Other markets include Middle East countries, India, China, Japan, Australia, Singapore, United Kingdom and others (George 2016; Thomas 2019).

The focus on Malaysia is due to its aspiration to become the top destination for medical tourism in the region (Meikeng & Chin 2020). This aspiration has contributed to the increased growth of the industry. The support from the government in the promotion of the industry is one of the major contribution for its growth (Lee & Fernando 2015). Additionally, Malaysia presents a unique situation due to its geographical location, proximity to major South East Asian cities, low crime and relatively low cost of living. Malaysia's medical tourism growth is also due to the favourable exchange rate, the short waiting period for surgery, state-of-the-art facilities, highly qualified medical specialists, affordable medical costs, and internationally credentialed safety and quality services compared to nearby regions (Dahlui & Aziz 2012; Ormond 2011). Some of the medical procedures Malaysia is known for include; Cosmetics Surgery & Aesthetics, Cardiovascular, dental, paediatrics, orthopaedics and eye health with some of its medical facilities receiving global health award for medical tourism (Malaysia Healthcare Travel Council 2018). The country is also a well-known tourist destination and popular for its kaleidoscope of cultures, natural beauty and delightful cuisines (Malaysia Healthcare Travel Council 2018). Some medical facilities have indoor pools for hydrotherapy, and wellness and recovery centres for patients to recuperate (Azizan 2015).

Singapore and Thailand on the other hand, are well established with good reputations as medical tourism destinations and still constitute the major regional competitors to Malaysia in its attempt to become the health-services hub in the ASEAN region. Even though, Malaysia still has certain advantages over the regional competitors, mainly related to cost factors, and its efforts to continuously improve the medical qualities, services and facilities (Lee & Fernando 2015), they still attract more medical tourists than Malaysia.

The focus on destination branding is that it helps to position a destination's strengths and weaknesses in the mind of consumers. It gives identity and value to a destination so that it is recognisable by tourists. Hence, destination branding will assist medical tourism organisations to understand how medical tourists feel about the destination and their emotional attachment towards the destination. De la Hoz-Correa, Muñoz-Leiva & Bakucz (2018) did a review of medical tourism themes and argued that research is needed on the destination branding of medical tourism. Other studies specifically argue that in-depth research is needed on destination quality, satisfaction and factors affecting behavioural intentions (Consumer loyalty) of the medical tourism industry (Vashua et al. 2018; Khan et al. 2016; Prajitmutita et al. 2016).

Additionally, this study will help to understand medical tourists' ability to recall and recognise the destination among others. It will also help understand medical tourists' perception of the quality of medical services and their satisfaction of the destination. Therefore, the need to integrate destination branding and medical tourism will ensure that Malaysia develops a unique identity different from competing for medical tourism destinations which will help them become a top destination for medical tourism.

Heung, Kucukusta and Song (2011) classified Malaysia as one of the developing countries that is already actively promoting medical tourism, nevertheless, relatively few studies have been conducted about medical tourism in Malaysia (Noree 2015; Watson & Stolley 2012). In addition, the extant literature on destination branding models for medical tourism is limited (Das & Mukherjee 2016; Roy, Mukherjee & Bhattacharya 2018). Even though the number of healthcare visitors has been increasing, Malaysia lags behind the neighbouring countries (e.g. Thailand and Singapore) and still is not the most chosen destination for medical tourism (Shamini & Puspavathy 2010). Thus, with the industry growing and limited knowledge on existing destination branding models of medical tourism, there is need for further investigation to help understand the perception of medical tourists towards a destination.

1.3 Problem Statement

The global market for medical tourism is expanding rapidly (Connell 2013; Snyder et al. 2011). and competition in the international medical tourism marketplace is becoming very intense (Kuo 2013). In such an increasingly competitive environment, the main concern for destinations is attracting new medical tourists through marketing and motivating them to make repeat purchases through strategies/service efforts (Han 2013). In the case of medical tourism, the customers can help market the destination through 'word of mouth', thereby attracting more people to the destination. However, in the medical tourism market, recognizing vital factors in medical tourists' repurchase decision making processes and understanding their specific role are becoming more and more important for any destination country and its attendant medical clinics (Han & Hyun 2015).

Previous studies investigating this phenomenon have focused on different factors for medical tourism. Fetscherin and Stephano (2016), discussed the push and pull factors for medical tourism. Push factors focus on the demand-side of the industry and are mostly related to

customers. These factors include; demographic, and health-related factors. Pull factors focus on the supply-side of the industry are mostly related to the overall country environment such as healthcare and tourism industry (Asi, Kirchner & Warren 2014; Fetscherin & Stephano 2016; Heung, Kucukusta & Song 2011; Maung & Walsh 2014). Sarwar (2013), argued for destination competitiveness, service quality, and customer service as important factors to measure medical tourism. Other studies focused on the operational issues (Connell 2013), and cross-cultural factors (Yu & Ko 2012).

However, despite the continuing growth and size of medical tourism, more research is needed to understand the perception of medical tourists towards a destination (Connell 2013; Reddy, York & Brannon 2010; Yu & Ko 2012). Despite research on destination branding and its effect on different destinations being carried out by different researchers, there is a dearth of research addressing the destination branding for medical tourists (Das & Mukherjee 2015; De la Hoz-Correa et al. 2018). The infrastructural developments (such as high-quality medical infrastructures and equipment) of the medical tourism industry to Malaysia has made it a very unique industry and vital for the authorities to ignore. Hence, undertaking this study will improve the attractiveness and development of Malaysia health industries. It will also have an impact on Malaysia aim of becoming a top medical tourism destination in the region.

The present study applies Keller's (2001) customer-based brand equity (CBBE) model to the medical tourism destination and extend the model by adding different components of the image. The image can be explained as the intangible components of a brand, and it also refers to a consumer's perception of a brand's features (Keller 2001; 2013). Some studies explained that destination image plays an important role in a destination (Konecnik & Gartner 2007; Boo, Busser & Baloglu 2009; Qu et al. 2011), and can be categorised into three different interrelated components of cognitive, affective, and conative (Gartner 1994; Chen & Phou 2013; Stylos et al. 2016; 2017). With Keller's model applying image as a single component, the present study fills this gap in knowledge by adding the cognitive, affective and conative image components to test the behaviour of medical tourist visiting Malaysia.

This study will increase our understanding of destination branding and how it might influence the medical tourism industry in Malaysia. Research attests that even from organisations involved in medical tourism as well as tourist destination countries, marketing seems to be neglected and little is known about what influences the behaviours of medical tourists (Connell

2013). Other researchers state that in a medical tourism context, less is known about key strategic antecedents and outcomes (Han & Hyun 2015; Lee & Fernando 2015). Furthermore, extant literature has largely focused on the factors that encourage tourism from the pre-purchase visit perspective (Aaker 1991; 1996), with limited insights from the post-purchase perspective, which is important for sustainable medical tourism in terms of tourist loyalty.

This diverse, dynamic and multi-faceted industry presents a rich context for research given the emerging and evolving connections between medical tourism, national and local governments (in regulation, promotion, and branding of medical tourism), insurance companies and the tourism industry in general (Connell 2013). The phenomenon is further fuelled by the parallel globalisation and corporatisation of health care, travel and tourism, thus taking a microscopic eye from a marketing lens will help uncover more insights as to the ‘why’ and ‘how’ of consumption of medical tourism services. This study aims to investigate these issues in the context of Malaysia which presents a unique situation due to its geographical location, proximity to major South East Asian cities, low crime and relatively low cost of living.

In light of the literature review presented above, several research questions have been developed for this study. These are presented below:

RQ1: What factors influence individuals to decide on a preferred destination for medical tourism?

RQ1a: To what extent does destination branding contribute to medical tourists’ decisions to visit a destination for both medical services and leisure?

RQ2: How does destination branding influence the decision of medical tourists?

RQ2a: What strategies can be implemented to attract more medical tourists’ to Malaysia?

1.4 Research aim and objective

This study aims to investigate the impact of destination branding factors on medical tourists’ perception of Malaysia as a destination for medical tourism. To achieve this aim, this study set the following objectives

- To investigate the factors that influence medical tourists' preference for a medical tourism destination
- To investigate the role of destination branding in medical tourists' decisions
- To investigate the influence of destination branding on medical tourists
- To propose a destination branding model for medical tourism

1.5 Significance of the Study

A significant body of research already exists on medical tourism, but has focused on the push and pull factors of medical tourism, cross-cultural factors, and operational issues among others (Fetscherin & Stephano 2016; Connell 2013; Yu & Ko 2012). This research focuses on the significance of destination branding and how it might affect the decisions of medical tourist to visit Malaysia. Additionally, a destination branding model for medical tourism is proposed to understand the perception of medical tourists towards a destination.

1.6.1 Significance to academics

Although several empirical studies have examined medical tourism from different perspectives, some researchers have recommended deeper exploration of the issues, implying a need for further studies on the subject (Connell 2013; Yu & Ko 2012; Han & Hyun 2015; Lee & Fernando 2015). This research may uncover different variables that influence the behaviour of medical tourists in choosing a destination. It might also develop insights into the important destination branding activities and how they will influence the selection of a destination for medical tourism. With a lot of focus on pre-purchase visit perspectives, the current study adds to the literature on the post-purchase perspective of medical tourists.

As much of the research has been conducted in western countries, such as Australia, some parts of Europe, North America, and few countries in Asia, the data was collected to suit the needs of those regions. Consequently, these findings may not generalise to the phenomenon in the Malaysian medical tourism industry. The reason is that the behaviour of medical tourists and their reasons for travelling to a particular destination might differ (Connell 2013; Kozak & Baloglu 2010). Additionally, applying a proposed destination branding model for medical tourism to Malaysia might help to understand the perception of medical tourists towards a destination. Hence, this study could shed more light into the relationship between destination

branding and the choice of a destination by medical tourists. The findings of this study are likely to present significant contributions to destination branding and medical tourism literature.

1.6.2 Significance to practitioners

The range of potential destinations for medical tourism has grown significantly as industrial players and policy makers recognise the potential economic benefits of medical tourism. Consequently, managing the competitiveness of a destination has become more important. A key element of this management process is to understand the how and why of consumption of medical tourism. Therefore, it is imperative to understand the criteria medical tourists apply in making decisions and the importance of destination branding.

The present study evaluates tourists' choice decision of a destination for medical tourism. The importance of branding the medical tourism industry in Malaysia will help the policy makers gain more knowledge on the behaviour of medical tourists. This knowledge will further assist their decision making on the strategic areas to focus on the industry that will help boost the local economy. As the number of international travellers increases, medical tourism destinations such as Malaysia stand a chance to benefit as substantial amount of such travels will be for medical services (George 2016a). An attractive medical tourism destination creates a thriving economy, and the country will be competitive when medical tourists perceive the destination as a quality medical tourism destination. However, trends change quickly. The 2020 pandemic has affected the medical tourism travel around the globe. Georga (2020) note that medical tourists have cancelled their appointments to different destinations, medical travel events rescheduled or cancelled and national restrictions on public gatherings. Without understanding changing market needs and their influence, a destination risks economic downturn.

The present study could also help marketing and sales professionals of entertainment and other hospitality industries to better serve their customers. Malaysia intends to define itself as a medical tourism hub especially for Asian medical tourists and has the capacity to do so (George 2016a). To become a top destination of choice for medical tourism, it is vital that the medical service providers and organisations understand the needs of medical tourists and provide quality medical services that best serve those needs. Additionally, Malaysia has witnessed an

increase in medical tourist arrivals and receipts, nonetheless, remain behind neighbouring countries, such as Singapore and Thailand, which may be attributed to our current understanding from the extant literature that has so far been silent on the factors that encourage medical tourist loyalty.

The findings of this study are likely to inform policy makers, medical tourism providers, and decision-makers of medical tourism auxiliary industries in Malaysia. These findings can also be generalised to similar settings through the world, namely, developing countries of comparable size, south East Asian countries and other similarly favourably located countries.

1.6 Organisation of chapters

The present study consists of eight chapters. The chapters are designed to provide clarity and understanding of the research.

Part A presents three chapters presenting the introduction of the study and thesis and literature review.

- Chapter One provides the introduction and background of the current study. It reveals the need for destination branding of medical tourism, presents the problem statement, research questions and objectives of this study.
- Chapters Two focuses on the factors that influence decisions of medical tourists' to travel for medical tourism. The past models of medical tourism with detailed analysis of the factors medical tourists consider important are also presented.
- Chapter Three focuses on the models of destination branding and presents a synthesis of the literature on the Consumer-Based Brand Equity (CBBE) models and its impact on tourism destinations. It finishes with a proposed destination brand model for medical tourism.

Part B includes two chapters detailing the methodological decisions taken pre-and post-data collection.

- Chapter Four presents the operationalisation of dependent and independent variables proposed in the model presented in the previous chapter.

- Chapter Five provides adopted ontological and epistemological views. The rationale for choosing the survey instrument is presented.

Part C includes two chapters presenting preliminary and detailed data analysis, respectively.

- Chapter Six presents preliminary data analysis. It also shows the detailed procedure and guidelines employed for purification of the scales. Confirmatory factor analysis (CFA) and the tests of invariance are presented.
- Chapter Seven presents a detailed data analysis with Structural Equation Modelling (SEM) and the direct and indirect relationships.

Part D includes one chapter titled Discussion.

- Chapter Eight which brings everything together with a detailed discussion on the findings. It also presents the limitations of the study, its significance to literature and practitioners, future directions building on this work and conclusion.

1.7 Summary

This chapter introduced the research and provided current trends in the medical tourism industry. The need for destination branding of medical tourism, research questions, problem statement, the study aims and objectives were also presented in this chapter. The chapter was concluded with the presentation of study significance and thesis outline. The next chapter presents the factors that influence medical tourism decisions and the models for medical tourism.

Chapter Two: Exploring the destination choice for medical tourist

The first chapter highlighted the background of medical tourism around the world and the need to develop a destination branding model for medical tourism.

This chapter provides insight into current trends in medical tourism literatures. It also examines the factors that influence medical tourists' choices and how these factors have progressed overtime. The chapter starts with a discussion of the models of medical tourism. The models discuss the different perspectives of the medical tourism industry and medical tourists' choice of destination. Next, factors that influence the choice of a destination from both medical tourists' perspective and the destination country's perspective are discussed.

2.1 Models of medical tourism

General models of medical tourism, described in the present study, outline the basic requirement to assess and evaluate medical tourists' perception and the comparison condition for the destination. Previous studies have developed different models of medical tourism aimed at evaluating the motivation of medical tourists' and the situation of the destination. Some of these models are presented in the subsequent sections

Extant literature presented several widely used conceptual models of medical tourism which have focused on the demand and supply perspectives. Heung, Kucukusta and Song (2010) provided a comprehensive view of the industry's demand and supply model of medical tourism (Figure 2.1). The demand and supply perspectives make up the two components of the conceptual model. Heung, Kucukusta and Song's (2010) integrated model noted that interaction between the factors of the supply and demand sides of the model will directly or indirectly influence potential medical tourist choices. The demand side comprise of factors that affect tourists' choice of destination and medical options. The study described it as the factors that drive the decision of medical tourists'. Some of these factors include cost, international recognised accreditation, and reputation of both hospital and physicians (Heung, Kucukusta & Song 2010). The supply perspective considers the services, efforts, and facilities a destination offers. In other words, it is how well a destination is prepared to meet the demands of medical

tourists. Some of the facilities include; superstructures, quality of facilities and services, infrastructures and state of the art medical facilities. They went further to argue that both the demand and supply factors of the model, directly or indirectly interact with each other to influence the choices of a potential medical tourist (Heung, Kucukusta & Song 2010).

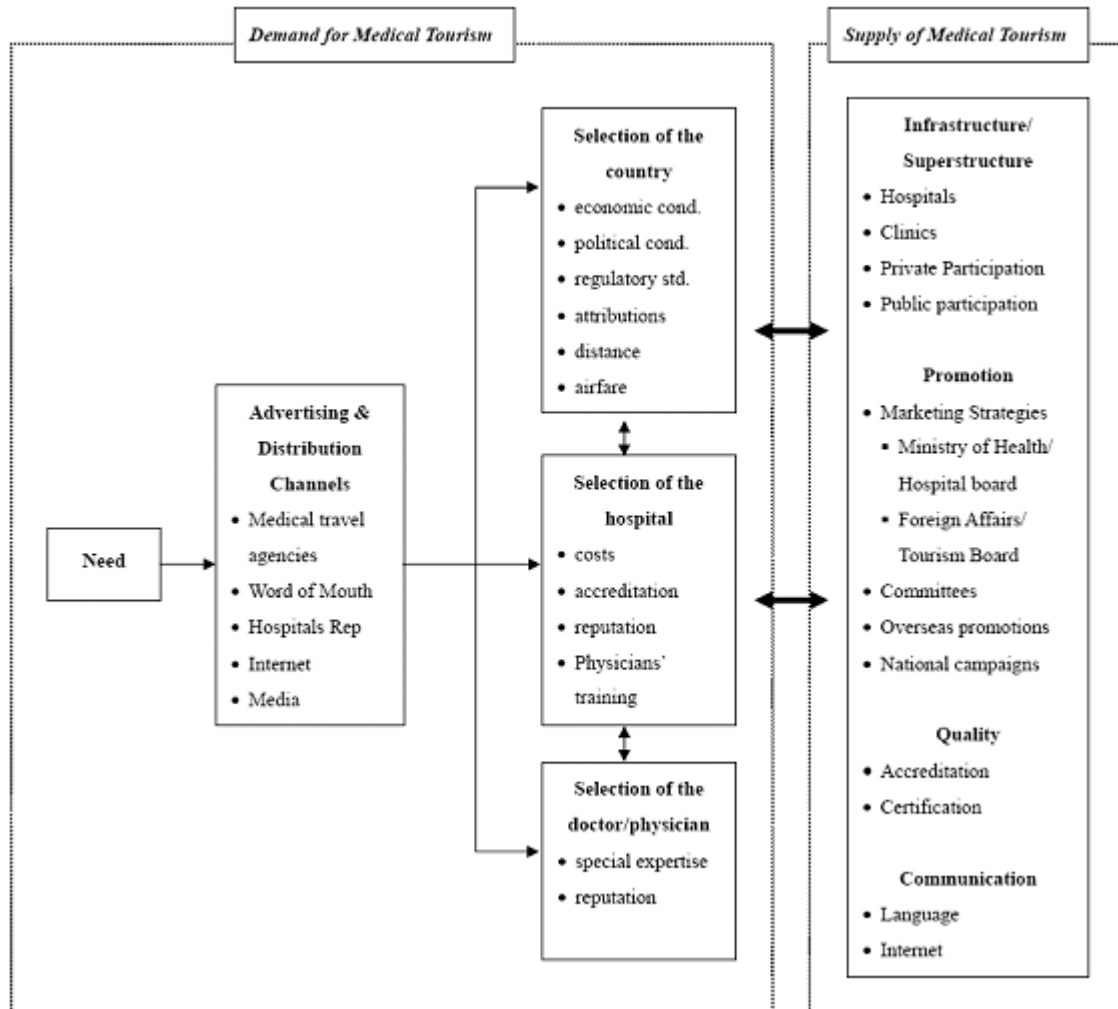


Figure 2.1: A supply and demand model of medical tourism (Heung, Kucukusta & Song 2010 p 244)

Smith and Forgione's (2007) study developed a two-stage model of factors that influence a patient's decision to seek medical care abroad. The first stage was the evaluation of a foreign country, and the second was the choice of a healthcare facility. The study found that factors such as; economic conditions, regulatory policies, and political climate are part of country-specific characteristics that influence destination choice, while factors such as cost, quality of care, hospital accreditation/infrastructure, and physician training have an impact on the choice

of healthcare facility (Smith & Forgione 2007). Thus, their study implies that all these factors play a significant role in the choice of a destination for medical tourism and does not depend on one dominant factor.

Alternatively, two models focused on only the demand side of medical tourism. Medhekar, Wong and Hall (2014) developed a conceptual framework for the demand side with a focus on key drivers. The framework which adopts the notion of disruptive innovation considered three key factors responsible for growth in medical tourism, they are; cost, waiting time, and accreditation (International medical tourism accreditation body such as JCI-accreditation). The study argued that the three factors are the cause of disruptive innovation for the global healthcare industry, as well as the drivers of innovation in terms of providing a quality service at an affordable cost (Medhekar, Wong & Hall 2014). They further noted that increasing cost of healthcare services, non-availability of treatments as a result of regulations, healthcare crisis, and long waiting time in developed countries have presented entrepreneurial opportunities for medical tourism development in emerging countries (Medhekar, Wong & Hall 2014). The implication of this study is that to achieve sustainable growth in medical tourism for developing countries, JCI accredited medical facilities and services, shorter waiting time, and low cost of medical services is significant.

Accordingly, Ye et al. (2008) developed an analytical framework of motivation for medical tourists. They adopted the pull and push motivation theory, and a case study approach to develop their model specifically tailored to Hong Kong medical tourists. Their study found that pull factors such as; medical expertise, service quality, advertisement of medical facilities, and hospital hardware affect the motivation of medical tourism (Ye et al. 2008). Their study noted that a destination should focus its marketing and advertisement programs on different characteristics of the environment and not just on the low cost of medical services.

Other models of medical tourism considered neither demand nor supply perspective. Pocock and Phua's (2011) conceptual framework identified policy implications of medical tourism for health systems with a focus on Singapore, Thailand, and Malaysia. Their model serves as a basis for further empirical studies on benefits and disadvantages of medical tourism for health systems in Southeast Asia by integrating five health system functions, which are; governance, regulation, financing, delivery, and human resources. They further acknowledge the economic benefits the industry can bring together with additional resources for investment in healthcare,

but argue that the financial benefits might come at the expense of health system for the local communities unless the industry is properly managed and regulated on the policy side (Pocock & Phua 2011).

Caballero-Danell and Mugomba (2007) created a map to document all the information collected from the newspaper, magazines, periodicals, academic materials, and electronic media in an attempt to understand the current status and future developments of medical tourism. A model of market description of the medical tourism industry which considers all stakeholders was developed based on the gathered data. The study found the market description variables that made up the medical tourism industry to be; target market, customer benefits, social issues, branding, infrastructure, operators, legal framework, communication channels, and products (Caballero-Danell & Mugomba 2007). They further developed a model for the medical tourism distribution channel. The model identified and categorises three distribution channels that connect a consumer to the destination for medical tourism. They are; operators, intermediaries (representative in consumers' country), and word of mouth (Caballero-Danell & Mugomba 2007). Their conceptual framework is for entrepreneurs in medical tourism and it can serve as a guide for new entrants into the industry.

Subsequently, Han and Hyun (2015) proposed a model which focused on international medical tourists' intention formation. The study explained medical tourists' intention formation as understanding the linkage between perceived trust (in both staff and medical clinics), medical and service quality, price reasonability, satisfaction and intention to visit or revisit a destination for medical tourism (specifically Korea). They found that perceived satisfaction, quality, and trust significantly affect medical tourists' intention to visit clinics as well as the destination country, with perceived satisfaction and trust as mediators. Additionally, the linkage between perceived prices is high or low depending on the reasonability of customers. For instance, for a similar quality of service provided, patients with a high level of price suitability are more likely to be satisfied once they attain an acceptable level of satisfaction, they will likely have a stronger level of trust, and more likely to return to clinic or destination (Han & Hyun 2015).

A model of tourism supply chain with antecedents and outcomes was developed by Lee and Fernando (2015) in an attempt to diversify the medical tourism industry and to enhance organisational performance and sustainability. They adopted four different theories (resource-based view, social exchange theory, relational view, and transaction cost theory) which explain

the complexity of collaboration among industries. Their model argues that industries involved in medical tourism should improve their supply change management strategies among each other through collaboration, trust, commitment, information sharing, and integration (Lee & Fernando 2015).

The models presented above exhibit some similarities. First, four of the models recognise the importance of demand stage in a destination's ability to successfully attract medical tourists (Smith & Forgione 2007; Heung, Kucukusta & Song 2010; Ye et al. 2008; Medhekar, Wong & Hall 2014). Either pull factors as Ye et al. (2008) describes them or choice of facilities as Smith and Forgione (2007) categorised them, they all consist of similar factors (cost, quality, and accreditation-JCI) and are vital to medical tourists decisions. Secondly, two studies went further to recognise both the demand and supply side of the industry. These models argue that even though demand side is important, medical tourists also consider the supply side of the industry which is the economic situation, infrastructural developments, political situation, promotional activities, and regulatory climate (Smith & Forgione 2007; Heung, Kucukusta & Song 2010).

In summary, the models of medical tourism presented above explain the different perspectives of the medical tourism industry and decision choice of medical tourists'. The factors enrich our understanding of what drives medical tourists' decisions. The models further establish the base for further studies into the different factors that might influence medical tourists' choice of destination either from their perspective or from the destination country's perspective.

2.2 Factors that influence the choice of destination from medical tourists' perspective

Recently, researchers explored the factors that influence the choice of destination for medical tourists (Collins et al. 2019; Zarei et al. 2018; Yıldız & Khan 2019; Abubakar & Ilkan 2016). These studies revealed a myriad of reasons and motivations that influence the decision to choose a particular destination for healthcare services. Although a substantial amount of research on factors that influence destination selection and their motivations exist, there is still a need for a deeper understanding of the significance of role each factor plays in Malaysia as a destination for medical tourism (Collins et al. 2019; Seow et al. 2017). This information is

significant as it could help policy-makers to make strategic decisions on how to position the medical tourism industry in Malaysia.

Previous studies identified factors that influence the choice of destination for medical tourists. Alsharif, Labonte and Lu (2010) assessed the decision of medical tourists' to travel for medical care in a different country, their level of satisfaction, and type of services they obtain. Their study focused on four different countries (China, India, United Arab Emirates, and Jordan), found that the most important factors were; the reputation of physician and facility, cost, and accreditation of the hospital (Alsharif, Labonte & Lu 2010). Similarly, Zhang, Seo and Lee (2013) focussed on factors that influence the choice of a destination for Chinese medical tourists. Their study found the high quality of medical service as the major determinant for Chinese tourists. Additionally, the study found the cost to not be a major determinant especially when the severity of the disease is in consideration. The study also argued that language, cultural distance, economic and political distance has a minimum effect and only considered when the disease is not severe (Zhang, Seo & Lee 2013). Thus, the cost is not significant as Chinese medical tourists value the quality of services more. The study highlights the importance of quality services for medical tourists while deciding on a destination for medical tourism.

A study in Thailand by Wongkit and McKercher (2013) explored the factors that influence destination selection of medical tourists, with emphasis on the type of treatment and their motivation for visiting that country. The study adopted a quantitative method, with data collected from eight different medical institutions. They found that the top three variables were related to the selection of providers (quality of care of medical service provider and its staff, qualification of physicians, and quality of available medical treatments), while the next two (quality of doctors and medical facilities of hospitals/clinics, and quality of required treatment i.e. the best place to receive it) was related to the selection of treatment (Wongkit & McKercher 2013). The study indicates that the quality medical facilities and quality and qualification of physicians are important variables to medical tourists' decision.

Accordingly, Gill and Singh (2011) explored the factors that US outbound medical tourists consider important before travelling out for medical tourism. The top three factors considered were; medical facilities and services, local primary doctor's recommendation, and government policies and law. Their study further identified Japan, South Korea, Singapore, Mexico, and

India as the top five destinations US medical tourists consider (Gill & Singh 2011). The study expands on the importance of quality medical facilities, and added the destination's government policy and doctor's recommendation as factors that influence medical tourists' decision. Additionally, the study also indicates that Malaysia is behind countries like Singapore and India in attracting medical tourists.

Veerasoontorn and Beise-Zee (2010) examined the contextual factors underlying the decision-making process of medical tourists, and the drivers of international medical tourism in the largest hospitals in South East Asia. The study found that while high cost and declining condition of healthcare in some countries is driving growth in medical tourism, pull factors such as organisational efficiency, patient-doctor relationship, innovation, and emotional service quality are encouraging a real preference for choosing an international healthcare provider (Veerasoontorn & Beise-Zee 2010). This implies that attracting medical tourists is dependent on sustained and continuous innovation in service quality.

Several studies categorised the factors as motivational factors that medical tourists base their decisions on. Pan and Chen (2014) explored the perception of quality and motivation of Chinese medical tourists visiting Taiwan. Their study identified eight key motivational variables that influence the tourists, they are; media and marketing advertisements, need to learn about their physical condition, recommendations from friends and relatives, a poor medical facility in hometown, use of similar language, low cost, flight accessibility, and government policies. Additionally, four factors affected their perception of quality and they were; medical quality of the hospital, advanced equipment, quality of technicians, and reliability of physicians (Pan & Chen 2014).

Thereafter, Hanefeld et al. (2015) in their study of UK outbound tourists' argued that the decision to participate in medical tourism is in four steps; the decision to seek treatment privately, the decision to travel abroad, choice of a destination country, and choice of the medical provider. The study recognises that motivation to seek treatment abroad is complex and individuals differ in their decisions but found that expertise, cost, desire to go on holidays, availability of treatment, and cultural reasons were vital and most common factors that influence the decision to seek medical treatments abroad (Hanefeld et al. 2015). Subsequently, Alsharif et al.'s (2010) study also investigated the motivation of medical tourists', and found

that lack of access to medical care, and waiting time were important variables that drive the decision to travel out for care (Alsharif, Labonte & Lu 2010).

Besides, Singh (2013) in a later study also explored the factors that influence travel motivation of US outbound medical tourists' by adopting a web-based electronic survey method. His findings agree with earlier findings by Gill and Singh (2011) which were medical facilities and services, local primary doctor's recommendation, and government policies and law as the top three factors. In contrast, the top five destinations were; Japan, Mexico, Brazil, India, and Israel. Both studies argue that the reason for the popularity of these countries for US medical tourists might be; easy air connectivity, safety and security, proximity to home, cost, variety of services, and weather conditions (Gill & Singh 2011; Singh 2013).

Fisher and Sood (2014) utilised a quantitative analysis method to determine what drives medical tourist to travel for medical care. Their study found that cost saving, availability of services, and time-saving are the major motivations for medical tourism. Similarly, Snyder, Crooks and Johnston (2012) adopted a qualitative approach and interviewed 32 Canadian medical tourists'. They found that access to treatments not available in the home country, affordability of medical care abroad, and less waiting time abroad are major motivations for engaging in medical tourism. Both studies further highlight the importance of cost, waiting time, and availability of treatment as motivational variables for medical tourism travels.

Zailani et al.'s (2016) study focused on factors that influence the satisfaction of Muslim medical tourists and the influence of their attitude in choosing a destination. Their study revealed that the satisfaction of Muslim medical tourist is dependent on the roles of the hospitals and physicians, while there is no relationship between their satisfaction and the nurses' halal practices. Additionally, their study found that attitudes only play a mediator role between medical tourists' and hospital halal practices (Zailani et al. 2016).

Some other studies characterised the factors based on cultural differences by citing medical tourists' decision to be influenced by the cultural background of the destination. An's (2014) study focusing on the cultural differences that exist among medical tourists' and its effects on their decision to choose a destination. The study specifically compared the cross-cultural perception among tourists from Russia, China, Japan, and the USA visiting South Korea. The results indicate that all four countries view the medical tourism industry in South Korea

differently both in terms of attitude and perception of services (An 2014). In terms of attitude towards the industry, Russia viewed it the most favourable, and the USA least favourable. Considering the perception of factors such as cost, service quality and access to information, Russia also viewed most favourable with Japan as least favourable (An 2014). The study implies that cultural differences might have an impact on tourists' choice of destination for medical tourism. Thereafter, Esiyok, Çakar and Kurtulmuşoğlu (2017) in agreement with the studies, argued that it is essential to incorporate cultural distance in policy planning, managerial, and marketing strategies of medical tourism. Their study acknowledged that different cultures might differ in terms of their needs but further implied adoption of customised strategies to address the differences (Esiyok, Çakar & Kurtulmuşoğlu 2017).

Yu and Ko (2012) aimed to identify the cultural differences among the perception of and participation in medical tourism of Japanese, South Koreans, and Chinese visit to a South Korean Island. Their study adopted a cross-cultural approach and found significant differences in how each of the three countries views discomfort, destination selection factors, and preferred medical services. Inconvenience related to healthcare services, accommodation, cost, and other information was placed high by both Japanese and Chinese. South Korean medical tourists on the other hand consider destination selection factors to be more significant, followed by the Chinese and then the Japanese. Additionally, Hanefeld et al. (2015) further found that the presence of a relative or close family member in the destination and knowledge of the local language is important destination selection attributes for medical tourists. Hence, this indicates that destinations with similar or close cultural context tend to attract people from neighbouring countries for medical tourism.

Other studies also differentiate the choice of destination from that of medical tourist's involved in fertility treatment, services, or care. A UK study by Culley et al. (2011) found that the motivation to travel abroad is complex and is different among individual patients. With a focus on patients involved in fertility treatment abroad, their study adopted a qualitative data collection method and collected data from patients involved in fertility treatments abroad. The study found that the majority are motivated by the desire for timely and affordable treatment. Other motivational factors include; higher success rates abroad, cost of medical treatment in the UK, dissatisfaction with UK treatment, and less stressful environment (Culley et al. 2011). Furthermore, Ye, Qiu and Yuen (2011) explored the experiences and motivations of Chinese

medical tourist visiting Hong Kong specifically to give birth. They conducted semi-structured in-depth interview and found that getting around China's 'one-child' policy is the main motivation, followed by obtaining Hong Kong's permanent residency, and the reputation of medical facilities. Their study further argues that although the medical facilities are of high standard with professionally trained staff, perceived discrimination and variation in staff attitude were found in different hospitals (Ye, Qiu & Yuen 2011).

In Summary, this section focuses on the factors that influence medical tourists to choose a destination for medical tourism. Some literatures found that medical tourists rate the quality of medical services and facilities as more important than other factors (Zhang, Seo & Lee 2013; Gill & Singh 2011), while other studies consider the cost of treatment as the most important factor for deciding on a medical tourism destination (An 2014; Fisher & Sood 2014; Smith & Forgione 2007). Additionally, the reputation of physicians and accreditation of medical facilities are among the important factors medical tourists consider (Wongkit & Mc Kercher 2013; Alsharif, Labonte & Lu 2010). A further review found that medical tourists are motivated to choose a destination because of the availability of treatment in the destination and less waiting time (Snyder, Crooks & Johnston 2012; Hanefeld et al. 2015; Alsharif, Labonte & Lu 2010; Fisher & Sood 2014). Other studies found that cultural similarities also play a role in the decision to choose a destination for medical tourism (Hanefeld et al. 2015; Yu & Ko 2012; An 2014; Esiyok, Çakar & Kurtulmuşoğlu 2017).

One of the objectives of this study is to investigate the factors that influence medical tourists' preference of a destination for medical tourism. With no particular order of the important factors that medical tourists consider as important, this study intends to investigate these factors to determine their level of importance to medical tourists visiting Malaysia for medical tourism.

2.3 Factors that influence the choice of destination from the destination country's perspective

Several studies found that the choice of a destination for medical tourism could be seen from the destination's viewpoint. Heung, Kucukusta and Song (2011) explored the factors that influence the development of medical tourism with a focus on Hong Kong medical tourism industry. The study adopted a qualitative research method and conducted in-depth interviews with 12 administrators from medical institutions, government bodies, and private and public

hospitals. They found that high cost, health care needs of the local community, policies and regulations, capacity problem, and lack of active government support are the main barriers to the development of medical tourism in Hong Kong (Heung, Kucukusta & Song 2011). The study further proposed government actions focus on encouraging investing, a synergy between the medical institutions and hospitality sector, and promotional activities as strategies to combat the barriers for the industry.

Existing research from Fetscherin and Stephano (2016) presented a country-based performance measure to access the attractiveness of a country as a destination for medical tourism. Their study conceptualised medical tourism as a multidimensional construct consisting of host country environmental factors, tourism attractiveness and health care cost, and medical facility and services (Fetscherin & Stephano 2016). They adopted a quantitative method with four dimensional variables sub-divided into thirty-four underlying items. Their study explained that the dimensions will focus on the image and overall environment of the host country, the tourism and healthcare industry and the quality of medical facilities and services. The study argued that these three factors are interdependent and related (Fetscherin & Stephano 2016). Hence, the country environment provides the framework for medical and tourism industry, which will eventually have an impact on the quality of medical facilities and services.

An alternative study by Frederick and Gan (2015) who looked at ways in which firms that facilitate medical tourism differentiate themselves from each other through their websites. In reviewing 173 medical tourism facilitators' websites, they found that differences exist geographically in advertised treatment and in services offered, as well as in website features. The difference is due to cost advantage in providing certain services, and the cultural factors, such as the preference of low or high context communication. In terms of promotion, the western (developed countries) firms offer services related to going abroad and more destinations while the Eastern (developing countries) firms focused on services in the destination country (Frederick & Gan 2015). Moreover, as different facilitators become more aware of the cultural differences and the services the others provide, they would likely emulate each other's website. For instance, if a Malaysian medical tourism facilitator's website wants to attract German medical tourists, it would ensure that it implements the strategies and communication styles adopted by the German medical tourism facilitators on their website.

Sultana et al. (2014) studied factors affecting the attractiveness of a destination for medical tourism focused on India. Their study conducted a survey and applied structural equation modelling to determine the consumer perspective of India as an attractive destination for medical tourism. The study identified cost and quality service as major factors affecting destination attractiveness while recognising the value of destination competitiveness. Additionally, they argued that the industry has its own specialised attributes which can range from core medical services to other leisure activities (Sultana et al. 2014). Thus, this implies that different levels of expertise and cost control in ensuring quality services are needed to transform a country to become an attractive and competitive medical tourism destination. Moreover, the above study is in line with Connell's (2013) who argued that effective marketing and existing infrastructure with evolving links to hospitals, flexibility, tourism and transport industries, modern technologies and active government support are major attributes that have propelled South East Asian countries in medical tourism.

Accordingly, Goodarzi, Taghvaei and Zangiabadi (2014) adopted a qualitative research method in exploring the effectiveness of medical tourism factors in Shiraz Megalopolis in Iran. Their study found five major factors that will affect the improvement of medical tourism in the destination. They are; quality of tourism and medical services, price of tourism and medical services, ICT, tourist and medical facilities and equipment, and culture (Goodarzi, Taghvaei & Zangiabadi 2014). They suggested future investment in infrastructures, superstructures and human capital, training and development, and further research about the industry in order to improve and gain a competitive edge.

2.4 Summary

This chapter has reviewed and discussed the existing models of medical tourism and the factors that might influence medical tourists' choice of a destination. Medical tourism models were mostly categorised into push and pull (sometimes termed as demand and supply) factors. These factors can directly or indirectly affect medical tourists' choice of a destination for medical services. These factors that influence medical tourists' choice of a destination were further categorised into medical tourists' perspective, and the destination country perspective. Some of the important factors that might influence medical tourists' choice of a destination include; quality of medical services, cost of treatment, qualification of physicians, accreditation of

medical facilities (especially hospitals), and long waiting time (at home country). The next chapter will introduce the proposed destination branding model for medical tourism and discuss the related factors.

Chapter Three: Models and dimensions of destination branding

In the previous chapter, the models of medical tourism and the factors that influence medical tourists' decision was discussed. Factors such as cost of treatment, quality of facilities and accreditation of medical facilities were among important factors influencing the decision of medical tourists to choose a destination.

This chapter examines literature to establish a theoretical framework underpinning the research on destination branding model for medical tourism. The first phase reviews various related literature on destination branding models for products brands and leisure tourism. Next a proposed model of destination branding for medical tourism was developed from existing literatures to assess the perspective of medical tourists towards their visit to Malaysia. Factors such as destination brand image, destination brand awareness, destination brand quality affection both destination brand satisfaction and destination brand loyalty are discussed. The last phase discusses the impact of destination brand satisfaction in achieving loyalty towards a destination, and the mediating effect of satisfaction on both awareness and quality.

3.1 Destination branding models

Tourists' are generally aware of the availability of various destination choices for medical tourism that provide similar features such as quality healthcare services, beautiful scenic view, and friendly staff. This implies that destinations need to be differential and unique to be selected as a final decision by target consumers (Pike 2015). Keller (2003) argued that since consumers have a lot of choice for products and services, effective branding will help the consumers simplify decision making, reduce purchase risk, and at the same time enable the marketers to create and deliver expectations in a way unique from its rivals.

As medical tourism around the world continue to grow, no model of destination branding for this phenomenon has been spotted. Hence, this study proposes to develop a model of destination branding for medical tourism.

One of the most vital aspects of brand strategy is the consumer based brand equity (CBBE) (Aaker 1991; Keller 1993, 2003, 2008). The CBBE has been explained by Keller (2003) as the differential effects in customers' marketing activities, resulting from the customers' knowledge of the brand. The base theoretical models for destination branding were developed by Aaker (1991) and (Keller 1993, 2003, 2008). Both studies developed different models of CBBE which have being regarded as base models for measuring consumer behaviour. Aaker's (1991) brand equity model is presented in Figure 3.1 below.

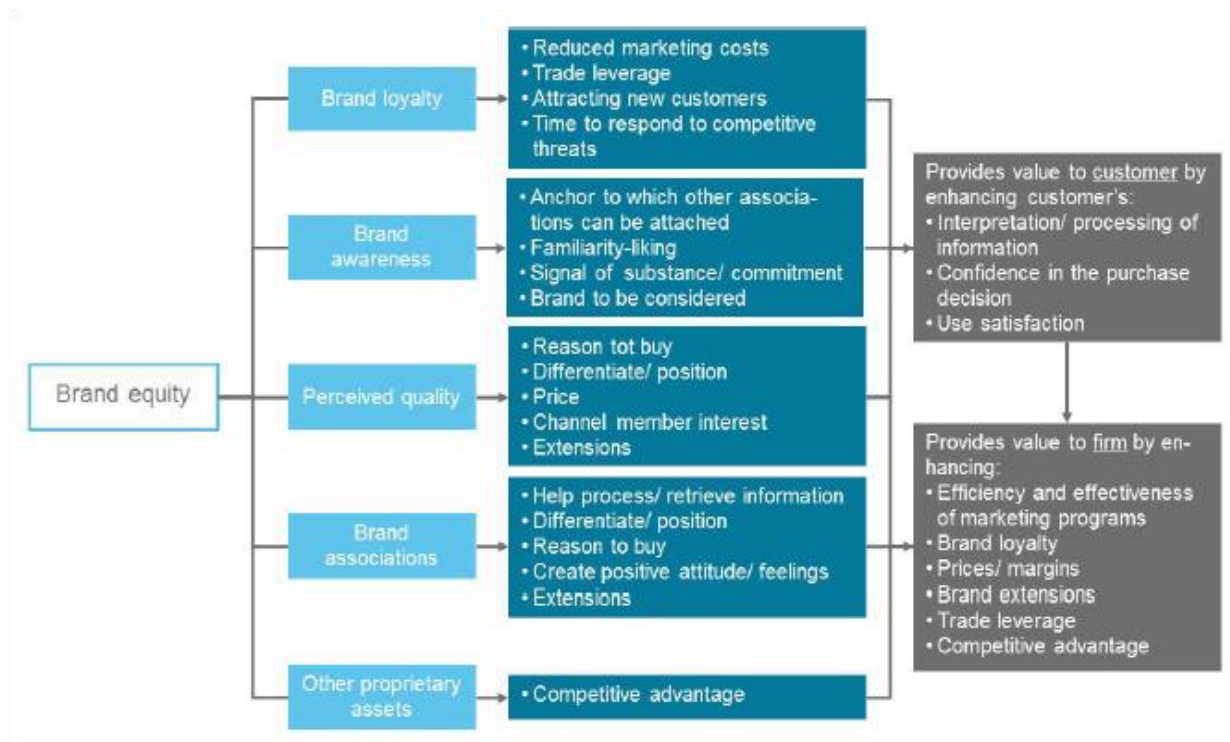


Figure 3.1: Brand equity model (Aaker 1991, p 232)

Aaker (1991, p. 27) defined brand equity as “a set of brand assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to a firm and/or to that firm’s customers.” These assets and liabilities consists of five different dimensions, which are; brand loyalty, brand awareness, perceived quality, brand association, and other proprietary assets such as trademarks, channel relationships, and patents (Aaker 1991).

Brand loyalty is defined as a result of consumers learning that only a particular product or service can satisfy their needs and its regarded as the core dimension of brand equity (Aaker 1996). This further represents a favourable attitude towards a brand and will result to consistent purchase of the brand (Aaker 1991). Brand awareness is the ability of a potential buyer to recognise or recall that a brand is a member of a certain product category (Aaker 1991). The tourist perception of overall quality or superiority of a product or service relative to alternatives is regarded as perceived quality. Brand association can be defined as any mental or psychological linkage to the brand (Aaker 1991). The study further suggested that these brand dimensions would add value to products or services and create additional customer satisfaction that will benefit a firm, if managed well (Aaker 1991). The focus of this model is on product category and not on services.

A CBBE model from the perspective of individual consumer was developed by Keller (1993). The study notes that positive or negative view of a brand depends on how consumers react to a good or service and the way it is marketed when the brand is identified compared to when it is not (Keller 1993). The study outlined two approaches to measure CBBE. Firstly, direct approach which measures the effects of brand knowledge (elements of brand image and brand awareness) on consumer response to marketing mix elements. The second is indirect approach which assessed the potential sources of brand equity by measuring brand knowledge. The study found that CBBE occurs when a consumer is familiar with the brand and holds some unique, strong, and favourable brand associations in memory (Keller 1993). Keller (1993) proposed six guidelines for the management of CBBE which are; adoption of a broader view of marketing decisions by marketers, define the knowledge structures intended for the mind of consumers, evaluate the tactical options available to create these knowledge structures, take a long term view of marketing decisions, conduct tracking studies and controlled experiments, and evaluate potential brand extension candidates.

Keller (2001) proposed a comprehensive CBBE model that is slightly different from Aaker's (1991) brand equity model. The model, in form of a pyramid (see Figure 3.2), presents four steps with different dimensions for building a strong brand. With each step dependent on the success of the other, the main aim of the model is to establish a relationship between the consumer and the brand which happens at the peak of the pyramid (Keller 2001, 2020). At the first stage, it is vital to achieve identity which involves establishing brand salience. Brand

salience relates to consumers' awareness of the brand and forms a fundamental part of the model (Keller 2001, 2003). Keller (2013) argues that brand salience captures the consumers' awareness of a brand, how easily consumers can recognise and recall the brand. Some studies have referred to this dimension as brand awareness (Aaker 1991; Keller 2013; Yousaf & Amin 2017).

■ Keller's brand equity model

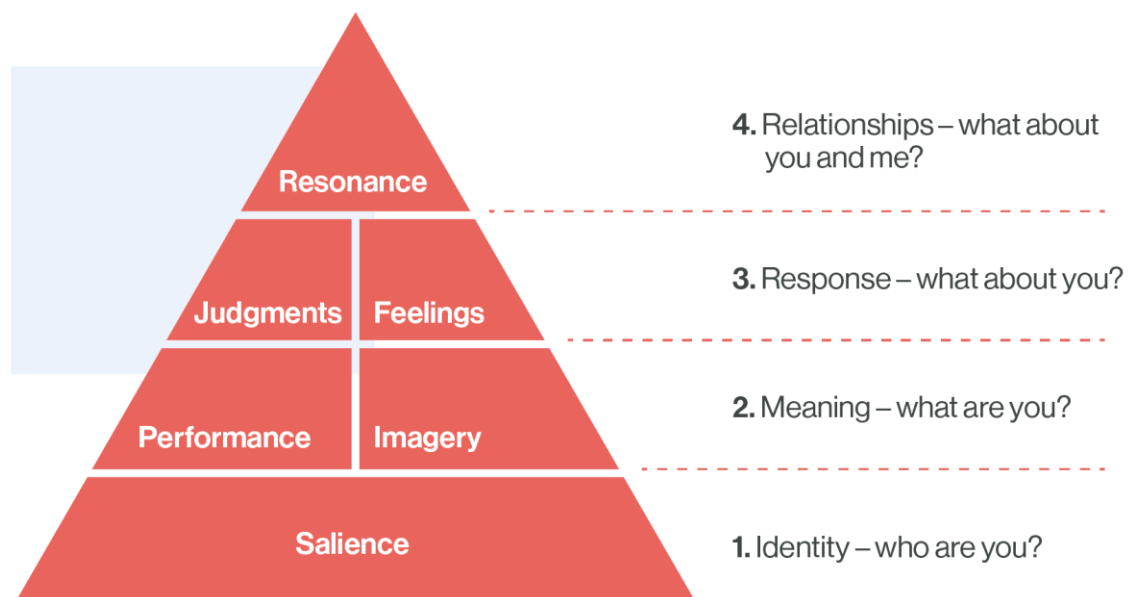


Figure 3.2: Consumer Based Brand Equity Pyramid (Keller 2001, 2003, p 11)

The second stage (meaning) projects the image and performance of the destination to the consumers'. Keller (2001) argues that brand performance represents how a brand meets the consumers' functional needs, whereas brand image represents the consumers' perception of a brand's characteristics. In other words, it refers to the intangible aspect of the brand and how the brand attempts to meet consumers' psychological needs (Keller 2013). The next stage (brand responses) refers to what consumers feel or think about a brand. It was categorised into brand judgement and brand feelings (Keller 2001). Brand judgement focused on the personal evaluations and opinions of an individual with regards to the brand, while brand feelings represent the emotional reactions and responses towards the brand (Keller 2003, 2013) The last

stage is brand resonance which refers to the extent of relationship that exists between the consumers and the brand. In terms of medical tourism destinations, it is vital to ensure that medical tourists are aware of a destination, understand the characteristics of the destination, and have positive feelings as that may influence their overall relationship with the destination.

Keller's (2001, 2003) model sought to illustrate consumers' relationship journey with a particular brand from recognising the brand at the bottom of the pyramid, through resonating with the brand at the top. The medical tourism industry could utilise this model to measure the perception of medical tourists' towards a destination. It will ensure that destinations understand the feelings of medical tourists and whether their satisfaction will resonate with the destination after their visit. With Aaker's (1991) brand equity model mostly focused on pre-purchase intention and products based, the current study will adopt Keller's (2001, 2003) CBBE model as a base model as it is focus on post-purchase intention and tailored to consumers.

There have been a several models for destination branding, developed with reference to the CBBE model. Bianchi & Pike (2011) developed a consumer-based brand equity (CBBE) model with a focus on attitudinal destination loyalty among Chileans travelling to Australia. Adopted from the theory of CBBE by Aaker (1991) and Keller (1993), the model applied the concepts of destination brand loyalty as a dependent variable against; destination brand salience, brand image, brand quality, and brand value as independent variables. They found the brand image, brand salience, and brand value to be positively related to brand loyalty. The study also found that Australia faces significant challenges in converting brand awareness into an intent to visit even with the result suggesting a strong brand salience (Bianchi & Pike 2011). This implies that although tourists are aware of Australia as a viable destination for tourism, most of them do not revisit or recommend Australia. This may be as a result of cost and distance to the destination. Hence, the study suggests that stronger recommendations from previous visitors will be a positive indicator for future growth. This might apply to the medical tourism industry as a recommendation and revisit intentions can help destinations attract medical tourists.

Pike and Bianchi (2016) tested the model for destination branding in long-haul and short-haul markets to determine the suitability of the CBBE model for benchmarking the brand performance of Australia. Long-haul represents visitors travelling from a farther distance to the destination, while short-haul represents visitors travelling from a close proximity to the destination. Their studied tested five dimensions (brand salience, brand value, brand image,

perceived quality, and brand loyalty) of CBBE model adopted from Aaker (1991) and Keller (1993, 2003). Samples of 858 and 845 questionnaires were collected from New Zealand (short-haul) residents and Chilean (long-haul) travellers respectively. Overall, the study found brand value, brand image, and brand salience to be positively related to brand loyalty. For short-haul travellers, the study found that brand salience and brand value has a stronger effect, compared to long-haul travellers. For medical tourism in Malaysia, this indicates that medical tourists from neighbouring countries such as Indonesia, Brunei, and Singapore will likely have stronger effects due to geographical proximity than medical tourists visiting from farther distance. Hence, a stronger destination awareness and value message might be created to target medical tourists from farther destinations.

Konecnik and Gartner (2007) adopted the dimensions of Aaker (1991) and Keller (1993) theoretical concept of customer-based brand equity (CBBE), and proposed customer-based brand equity of a tourism destination (CBBETD). The aim was to determine the extent to which a consumer product based model could be applied to a destination as a brand. They used a computer-assisted telephone interview method to collect data from Croatian and German tourists knowledgeable about Slovenia. They found that four dimensions (destination image, destination awareness, destination quality, and destination loyalty) of customer-based brand equity of a tourism destination (CBBETD) are important in destination evaluation. They argued that destination image plays a salient role but should not be considered alone in destination evaluation (Konecnik & Gartner 2007). Their research indicates that all four dimensions are important and applicable in branding a destination similar to consumer products and might be applicable to medical tourism destination.

A similar study by Boo, Busser and Baloglu (2009) also developed a destination branding model with the adoption of consumer-based brand equity (CBBE). Their model tested tourists visiting Atlantic City and Las Vegas utilising an online survey method. They found destination branding experience which emerged as a combination of brand image and quality as an emerging concept in a destination branding context. Their study further confirmed destination branding experience as an important influential factor in destination loyalty (Boo, Busser & Baloglu 2009). The studies (Konecnik & Gartner 2007; Boo, Busser & Baloglu 2009) show that the CBBE model can be applicable to a tourism destination. Hence, the current study will

apply the model to medical tourism destination to investigate the perception of medical tourists' in choosing a destination for medical tourism.

This study will expand Keller's model by applying different components of image to test their influence on medical tourists' decision to visit Malaysia. Gartner's (1994) research on image formation process conceptualised image into three different components of the cognitive, affective and conative image. Cognitive image refers to tourists belief or knowledge about a destination's attributes, the affective image refers to tourists' emotional feelings or response towards the characteristics of the destination, while conative refers to tourists behavioural intention which might affect their future perception of the destination (Song, Kim & Yim 2017; Ramkissoon, Uysal & Brown 2011; Gartner 1993; Stylos et. al. 2016; 2017; Chen and Phou 2013). Several studies have recently applied the different components of image to a destination to test its impact on tourists' perception of a destination (Stylos et al. 2016; 2017; Kim & Chen 2016; Chen & Phou 2013). Hence, the present study will add these components of image to test its impact on medical tourists' decision to choose a destination for medical tourism.

Other models of destination branding did not adopt the CBBE model but focused on destination image and its importance to destination branding. Qu, Kim and Im (2011) developed and tested a theoretical model of destination branding, which integrates the concepts of destination image and branding. They found the overall image mediates the relationship between three components of brand association (cognitive image, affective image, and unique image) and tourists' intention to visit and recommend. They found that for a successful branding practice to capture consumers' minds, it should include both strong and distinctive destination image, and image as a mediator to influence tourist behaviours and not only one of the other (Qu, Kim & Im 2011). Thus, to remain competitive, the establishment of a strong and positive brand image is important to attract new tourists and to increase repeat visits. Moreover, the present study might inform the importance of a medical tourism destination to establish a strong, positive and distinctive image to attract new medical tourists and ensure repeat visits.

A conceptual model of destination branding proposed by Cai (2002) was based on a combination of previous theoretical studies (Gartner 1994) framework of destination image process and Anderson (1983) psychological theory of adaptive control of thoughts. The theory states that *"information is encoded in an all-or-non manner into cognitive units and the strength of these units' increases with practice and decays with delay"* (p. 261). It further

proposed that since retrieval is performed by spreading activation throughout the network, an interconnected network is formed through the cognitive unit (Anderson 1983). The model as shown in Figure 3.3 below, considers destination branding as a recursive process centred on building destination identity through spreading activation. This results from dynamic linkages among brand associations (affective, attributes, and attitudes components (3As), brand element mix, marketing activities (managing secondary associations, marketing communications, and marketing programs (3Ms), and image building (Cai 2002). Attributes were described as a perception of intangible and tangible characteristics of a destination. Affective described as desired benefits, and personal values associated with the attributes; while attitudes reflect the reasons for certain behaviours or actions, and overall evaluation (Cai 2002). Their study further explained that a brand association (3As) is formed with the selection of one or more brand elements (logos or slogans).

Cai (2002) further argued that using the marketing activities, the projected and perceived images which are based on the desired image can be created and communicated. Subsequently, the model is surrounded by existing organic image, existing induced image, positioning and target market, and destination size and composition (4Cs) as spreading activation also take place around the model. To validate the model, a case study of Old West Country which is a marketing consortium in New Mexico, USA was applied. A sample of 1833 was gathered from people who made inquiries about the destination in the past 12 months. The study found that corporative branding resulting in the projection of a consistent cognitive image was beneficial to both the region and its member communities (Cai 2002). This implies a stronger brand identity would be achieved through cooperative branding across multiple rural communities. Cai (2002) further suggested that an image must be built by choosing an optimal brand element mix and identifying the most relevant brand association in destination branding.

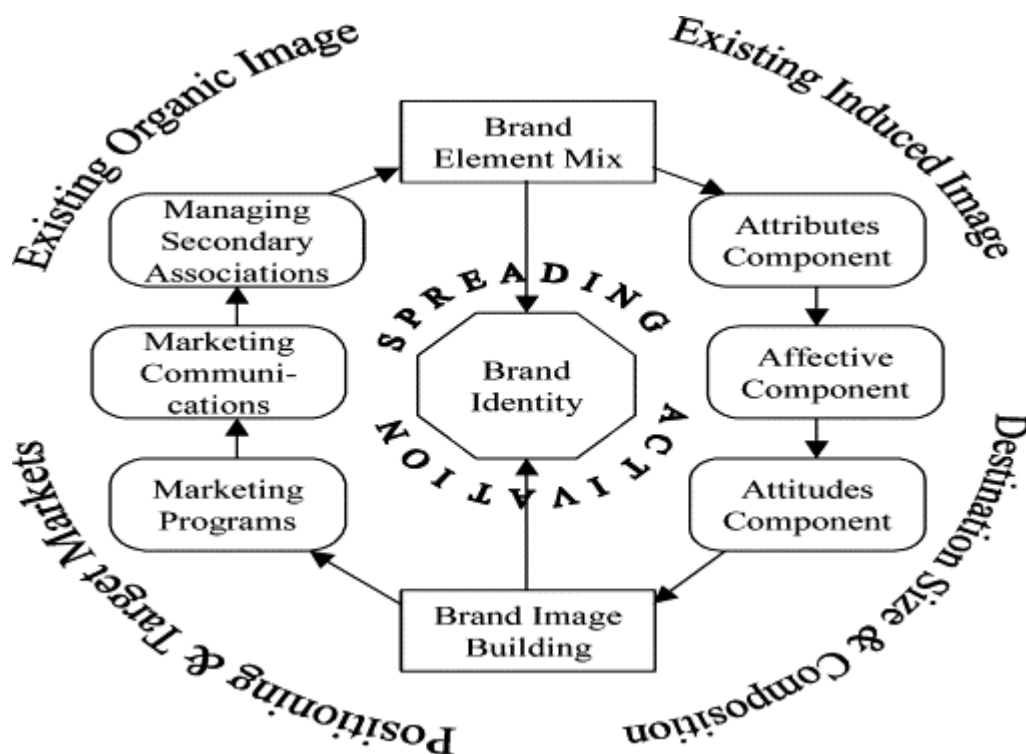


Figure 3.3: Model of destination branding (Cai 2002, p 725)

Hankinson (2004) analysed literature related to relational exchange paradigm, classical branding theories, and network marketing paradigm. Classical branding theory has its roots in product marketing as it focuses on the concept of the product brand. For relational exchange paradigm, an exchange is characterised as a continuous process with a focus on value creation through relationships with both customers and all stakeholders while network marketing paradigm involves collaborative partnerships with other organisations and stakeholders (Hankinson 2004). His analyses identified four main streams of brand conceptualisation, which are; brands as perceptual entities, brands as relationships, brands as communicators, and brands as value enhancers. To ensure the success of place branding, he developed a conceptual model of place brand reflecting brand relationships which can be seen in Figure 3.4 (Hankinson 2004). This study showed brand infrastructure, consumer, primary service, and media relationships all surround the core brand at the centre. The study found that all the categories interact with each other as well as support the core brand in a dynamic relationship (Hankinson 2004). The study contends that the ultimate success of a branding strategy relies on the effective extension of the core brand through an effective relationship with stakeholders.

This model was extended by Harrison-Walker (2012) who added brand identity to the conceptualisation of place branding as it also includes positioning and personality. To emphasise and demonstrate the relational nature of the branding process, image, effect, and position were added as a corresponding audience. They argued that the measurement of relational branding should be from the perspective of both target audience and place marketers based on the constructs available to them (Harrison-Walker 2012). In a destination context, the models imply that successful branding requires brand infrastructural investments as well as a network of stakeholder relationships that share a common vision of core brands. This means that for medical tourism, development of medical facilities, a synergic relationship between the stakeholders, and the quality of services delivered will likely attract more medical tourists to the destination.

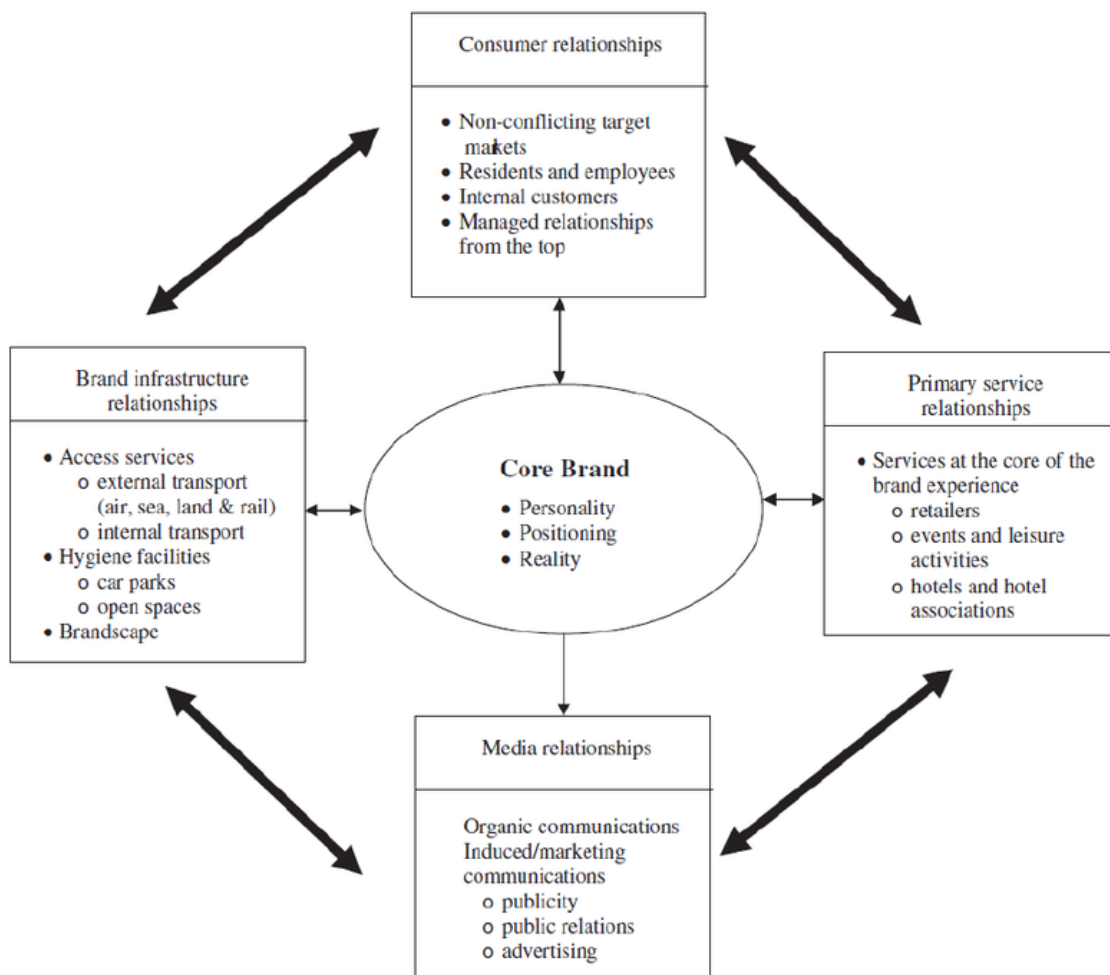


Figure 3.4: The relational network brand (Hankinson 2004, p 114)

Hsu and Cai (2009) proposed a conceptual model of destination branding resulting from the synthesis of literature from psychology, consumer behaviour, marketing, sociology, and general branding. Their model introduced brand trust and loyalty as distinct but causally related branding blocks, and as the consequence of brand knowledge (Hsu & Cai 2009). The model further highlights the strategic importance of branding by promoting branding as a strategic concept instead of treating it as a marketing tactic or tool.

García, Gómez and Molina's (2012) destination branding model was based on shareholders' interest. Their model focused on three different stakeholder groups of entrepreneurs, local people, and visitors. Subsequently, the model was applied to Castilla-La Mancha, a tourism destination in Spain, by utilising a newly developed index called Success Index of Triple-Diamonds (SITD) which measures the success of destination branding based on differences and similarities among different stakeholder groups (García, Gómez & Molina 2012). They utilised telephone and personal interviews to collect data from all three stakeholder groups. Although the study acknowledges the importance of all stakeholders in the success of destination brand, entrepreneurs represent the greatest contribution, while visitors and local people were found to be considerably less important in destination branding strategy (García, Gómez & Molina 2012). Hence, this study implies that coordination of all stakeholder groups integrating different concepts is needed for a successful destination branding strategy. Similarly, Pike (2005) argued that a broader framework comprising of entrepreneurs, local people and visitors is needed for a successful destination branding. Table 3.1 below represents a summary of the models presented above.

Table 3.1: Models of destination branding

Research type	Study	Focus	Findings	Methodology
Empirical	Bianchi and Pike (2011)	Developed a CBBE model with a focus on attitudinal destination loyalty among Chilean travellers to Australia	They found the brand image, brand salience, and brand value to be positively related to brand loyalty. They also found that although brand salience is strong, Australia finds it difficult converting	Questionnaire

			awareness to visit intention.	
Empirical	Pike, Bianchi, Kerr, and Patti (2010)	Tested the effectiveness of the CBBE model for long-haul (Chile) tourism destination	The results indicated that although Australia is a well-known destination, it's not appealing to tourists in Chile. This result showed lower priority the national tourism office gave the South American market.	Questionnaire
Empirical	Pike and Bianchi (2016)	Tested the model for destination branding in long-haul (Chile) and short-haul (New Zealand) markets to determine the suitability of the CBBE model for benchmarking the brand performance of Australia.	Overall, the study found brand value, brand image, and brand salience to be positively related to brand loyalty. The study also found that brand salience and brand value has a stronger effect on short-haul travellers compared to long-haul travellers.	Questionnaire
Empirical	Konecni k and Gartner (2007)	Proposed customer-based brand equity of a tourism destination (CBBETD), to determine the extent to which a consumer product based model could be applied to a destination as a brand.	They found that destination image, destination awareness, destination quality, and destination loyalty are important in destination evaluation.	Survey (Used a computer-assisted telephone interview method)
Empirical	Boo, Busser and Baloglu (2009)	To developed a destination branding model with the adoption of consumer-based brand equity (CBBE).	They found destination brand experience as an emerging concept in destination branding. It had a positive effect on destination brand value but no direct influence on loyalty. This implied	Survey (online survey method)

			that tourists' positive experience doesn't necessarily mean they will be willing to recommend or revisit the destination.	
Empirical	Qu, Kim and Im (2011)	Developed a model that integrates the concept of destination branding and branding image.	Found overall image to mediate the relationship between three components of brand association (cognitive image, affective image, and unique image) and tourists' intention to visit and recommend.	Questionnaire
Empirical	Cai (2002)	Proposed a conceptual model of destination branding, founded on spreading activation theory and image formation process.	The study found that in projecting a consistent cognitive image based on shared destination attributes, cooperative branding have benefited both the region and its member communities. The study also found that cooperative branding built stronger linkages of attributes-based image to the brand identity and more favourable affective and attitudes-based brand associations for a region than for individual communities.	Questionnaire
Conceptual	Hankins on (2004)	Developed a conceptual model of place branding with a focus on behaviours and brand reality, rather than	The study identified four main streams of conceptualisation, which are; brands as perceptual entities, brands as relationships, brands as	N/A

		communications and image.	communicators, and brands as value enhancers.	
Conceptual	Harrison-walker (2012)	Expanded Hankinson's (2004) model and clearly reflected on relational nature of brands.	The study showed that the core place brand consists of identity, personality, and positioning, while the corresponding audience elements are image, affect, and position. The study also defined the six constructs involved in the relational brand process.	N/A
Conceptual	Hsu and Cai (2009)	Conceptualised a destination branding model that reflects the process of tourist decision making.	The model introduced brand trust and loyalty as distinct but causally related branding blocks, and as the consequence of brand knowledge. The model further highlights the strategic importance of branding by promoting branding as a strategic concept instead of treating it as a marketing tactic or tool.	N/A
Empirical	García, Gómez and Molina's (2012)	Focused on three stakeholder groups of entrepreneurs, local people, and visitors.	Entrepreneur group found to be more important as they contribute more than the other stakeholders.	Survey (Telephone and personal interviews)

The examination of extant literature presents a lack of research on the destination branding of medical tourism. The proposed destination branding model (Figure 3.5) for medical tourism fills this gap in knowledge by extending Keller's CBBE model and testing it to a medical tourism destination. Therefore, this will help to understand the post-purchase behaviour of

medical tourists towards Malaysia as a medical tourism destination. Next section will present a detailed explanation of the variables and proposes the hypothesis of the study.

3.2 Proposed model of destination branding for medical tourism

This section presents the proposed destination branding model for medical tourism. The model (Figure 3.5) below shows the different constructs that will be tested for this study. The destination brand image component was extended to include cognitive, affective and conative image components and will be tested to see its influence on satisfaction and loyalty. This study will also test the influence of destination brand awareness and quality on both satisfaction and loyalty. Destination brand satisfaction will serve as a mediating variable to mediate the relationship between awareness, image, and quality, and loyalty.

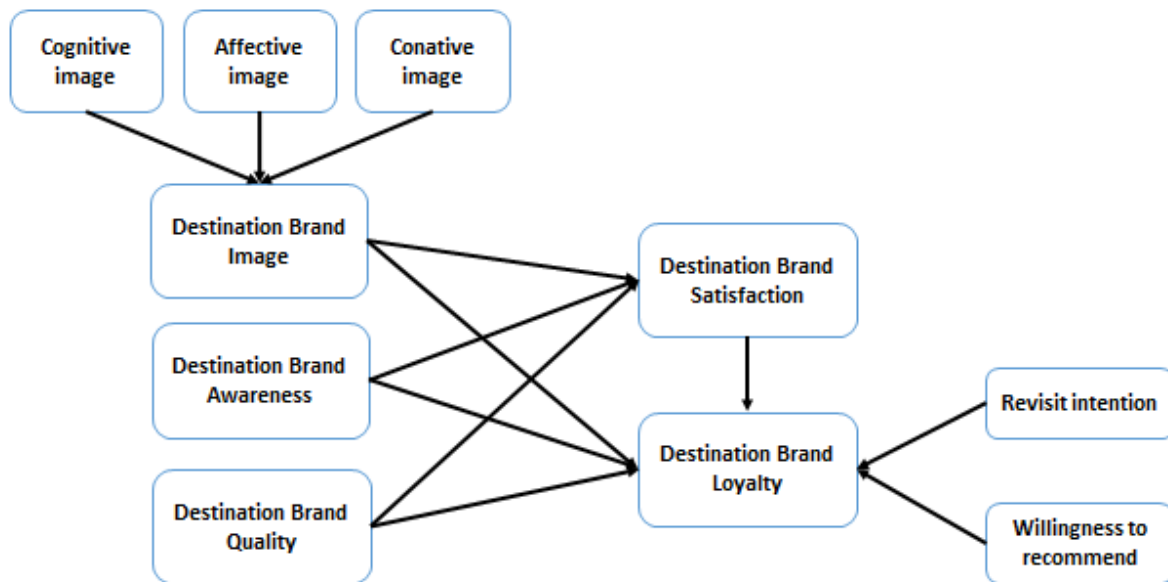


Figure 3.5: Proposed model of destination branding for medical tourism

3.2.1 Destination brand image

Destination image plays an important role in promoting tourism destinations, and several studies have covered its various aspects (Ramkissoon, Uysal & Brown 2011; Zhang et al. 2014). Assaker (2014) explained the destination image as a set of ideas, emotional thoughts, impressions, and expectations an individual has of a particular place (Crompton 1979). Blain, Levy, and Ritchie (2005) argued that the intent of destination image is to convey an individual's overall experience and the idea of a destination, while (Govers, Go, and Kumar (2007) noted

that it could include more unique or distinguishing events, auras, feelings, and feature or common psychological or functional traits. Cai (2002) simplified that destination image reflects tourists' perception of a destination in their memory. Several scholars regarded destination image as multidimensional, consisting of many components that contribute to the formation of a total image of a destination in the consumers mind (Zhang et al. 2014; Hosany, Ekinci & Uysal 2006). Gartner (1994) argued that three distinctively different but hierarchically interrelated components of Cognitive, Affective, and Conative make up a destination image. Others studies on destination image have based on these three main components of destination image (Chen & Phou, 2013; Kim & Chen, 2016; Kim & Yoon, 2003; Stylos, Vassiliadis, Bellou, & Andronikidis, 2016; Tasci, Gartner, & Cavusgil, 2007).

Cognitive component refers to the knowledge or belief an individual holds of the destination attributes (Ramkissoon, Uysal & Brown 2011; Song, Kim & Yim 2017; Chen & Phou 2013). Pike (2009) went further to suggest that cognitive refers to associated knowledge of that could or could not be derived from a previous visit, as well as the sum of what an individual's belief or knowledge of a tourism destination. Affective represents the emotional response or feelings towards the characteristics or features of a place (Ramkissoon, Uysal & Brown 2011; Chen & Phou 2013; Hallmann, Zehrer & Müller 2015; Song, Kim & Yim 2017). Conative represents the behavioural or attitudinal intention of the tourists and might affect their future perception of a destination (Gartner, 1993; Stylos et. al., 2016; Chen and Phou, 2013). Many studies have considered conative as similar to intention as it represents tourists' feelings of a destination (Pike & Ryan 2004; Prayag 2009; King, Chen & Funk 2015; Tasci, Gartner & Cavusgil 2007). As an interrelation in image formation, an individual forms the cognitive image of a destination, based on which the affective image is developed and then the conative image (Chen and Phou, 2013; Gartner, 1994; Zhang et. al., 2014). With a focus on only cognitive and affective image, Lin, Morais, Kerstetter, and Hou (2007) found that a combination of the two will create a unique destination image in the mind of tourists.

Numerous studies have found a positive relationship between destination brand image and destination brand loyalty (Konecnik & Gartner 2007; Boo, Busser & Baloglu 2009; Lee & Back 2008; Im et al. 2012). Im et al. (2012) found that the perception of a brand image has played a critical role in understanding tourists' intentions to visit a destination. Additionally, CBBE model was applied in Slovenia to test the perception of German tourists; the result

showed that destination image plays an important role in both first visit and revisit intentions (Gartner & Ruzzier 2011). Moreover, further studies found that destination image not only significantly predicts revisit intention, it also positively influences satisfaction (Chen & Phou 2013; Hallmann, Zehrer & Müller 2015; Kim 2018; Prayag et al. 2017). This implies that tourists with a favourable destination image and a higher level of satisfaction will likely engage in positive behavioural intentions. Hence, it is assumed that medical tourists with a favourable image towards a destination and satisfaction of a destination will likely revisit and recommend the destination to other.

The present study will focus on the cognitive, affective and conative image as antecedents of the destination image. There is a need for more research to strengthen the understanding of destination image as an influence on tourists' travel behaviour (Kim, 2017; Prayag et al. 2017). As a result, the present study proposes to investigate destination images as part of destination branding determinants of tourists' behavioural intentions to consume medical services. Based on the above discussion, the following hypotheses are proposed for this study:

Hypothesis 1a: Essential conditions of cognitive image is positively associated with medical tourist intention to revisit and recommend a destination (Destination brand loyalty).

Hypothesis 1b: Essential conditions of cognitive image has a positive effect on destination brand satisfaction

Hypothesis 1c: Attractive conditions of cognitive image is positively associated with medical tourist intention to revisit and recommend a destination (Destination brand loyalty).

Hypothesis 1d: Attractive conditions of cognitive image has a positive effect on destination brand satisfaction

Hypothesis 1e: Appealing conditions of cognitive image is positively associated with medical tourist intention to revisit and recommend a destination (Destination brand loyalty).

Hypothesis 1f: Appealing conditions of cognitive image has a positive effect on destination brand satisfaction

Hypothesis 1g: Affective image is positively associated with medical tourist intention to revisit and recommend a destination (Destination brand loyalty).

Hypothesis 1h: Affective image has a positive effect on destination brand satisfaction

Hypothesis 1j: Conative image is positively associated with medical tourist intention to revisit and recommend a destination (Destination brand loyalty).

Hypothesis 1k: Conative image has a positive effect on destination brand satisfaction

3.2.2 Destination brand awareness

Im et al. (2012) defined brand awareness as the strength of a brand's presence in the mind of a consumer, while Gartner & Ruzzier (2011) argued that awareness is the first step in building and increasing value of a brand which makes it essential to brand equity. Other past studies have referred to brand awareness as the ability of potential consumers to identify or recall and recognise a brand under different situations (García, Gómez & Molina 2012; Berry & Seltman 2007; Dwivedi et al. 2016; Gartner 1994; Hsu & Cai 2009). Gartner (1994) found awareness to imply that potential tourists have an image of a destination in mind. Tasci (2018) suggested that familiarity can be used instead of awareness and can be a measurement of awareness. Keller (2013) argued that brand associations may contain and/or reflect independent aspects of a product while acknowledging the concept as pieces of information linked to the nodes that contain a consumers' perceived meaning of a brand (Keller 2013).

Previous studies have considered brand awareness as one of the important dimensions of destination branding. Boo, Busser and Baloglu (2009) included brand awareness as a salient destination brand measurement from tourists' perspective. Konecnik and Gartner's (2007) CBBE measured four dimensions (image, loyalty, quality, and awareness) and identified brand awareness as a vital construct in destination evaluation. Existing consumer behaviour models argued that brand awareness is a necessary first step, but not sufficient in itself for repeat or trial purchase (Konecnik & Gartner 2007). Although awareness might not directly lead to purchase intentions, it will lead to curiosity about the product and in this case about a destination. Thus, it is important for destinations striving to be successful to first gain tourists' awareness.

Various studies have recognised the relationship between destination brand awareness and destination loyalty (Pike et al. 2010; Konecnik & Gartner 2007; Lee & Back 2008; Boo, Busser

& Baloglu 2009). Im et al. (2012) found that raising awareness of a destination increases the likelihood of tourists' preference of the destination, which in turn increases the likelihood of visitation. Further studies also found brand awareness to positively affect tourists post-purchase intention (Kuang Chi & Ren Yeh 2009; Ehsan Malik et al. 2013; Osman & Subhani 2010; Yuan & Jang 2008). Moreover, Lemmetyinen, Dimitrovski, Nieminen, and Pohjola (2016) found that brand awareness had a positive effect on satisfaction. Bilal & Malik (2014) also found a strong association between brand awareness and satisfaction. This implies that tourists' awareness of a destination will likely lead to a higher level of satisfaction of that destination. Thus, medical tourists' awareness of a destination will likely increase their satisfaction of the destination as well as influence their intention to revisit or recommend the destination. Hence, the following hypotheses are proposed for this study:

Hypothesis 2a: Destination brand awareness is positively associated with destination brand loyalty.

Hypothesis 2b: Destination brand awareness has a positive effect on destination brand satisfaction

3.2.3 Destination brand quality

The perceived quality of a destination is one of the constructs that has been used frequently by scholars in conceptualising destination brand equity models (Pike et al. 2010; Boo, Busser & Baloglu 2009; Gartner & Ruzzier 2011; Konecnik & Gartner 2007). Few studies (Kuang Chi & Ren Yeh 2009; Konecnik & Gartner 2007; Gartner & Ruzzier 2011) explained quality as a subjective judgement which can be made operational through a variety of scales, while Gartner and Ruzzier (2011) viewed it as simply meeting or exceeding expectations. Pike et al. (2010) viewed it as the perception of the quality of social amenities, hospitality services, and destination infrastructures. Im et al. (2012) and Pappu, Quester, and Cooksey (2005) found the perceived quality to be an important dimension of brand equity as it provides value to customers, giving them a reason to buy and differentiate the brand from competitors. Other studies refer to perceived quality as consumer perception of brand excellence or superiority (Keller 2013; Dwivedi et al. 2016).

Gartner & Ruzzier (2011) found that the perceived quality of a destination is significantly important for both repeat and revisit intentions. This implies that the perceived quality of a

destination is an important consideration for brand loyalty. Few other studies also found the perceived quality to positively influence tourist intention to revisit (Allameh et al. 2015; Tosun, Dedeoğlu & Fyall 2015; Liu & Lee 2016). Additionally, several studies have shown empirical evidence of the positive relationship between perceived quality and satisfaction (Baker & Crompton, 2000; Bigné, Sánchez, & Sánchez, 2001; Chen & Chen, 2010; Jin, Lee, & Lee, 2015; Lee, Jeon, & Kim, 2011; Petrick, 2004). With the above positive relationship, the current study assumes that quality of a medical tourism destination will likely lead to medical tourists' satisfaction of the destination as well as influences their intention to revisit and recommend the destination. Therefore, the following hypotheses are proposed for this study;

Hypothesis 3a: Destination brand quality is positively associated with destination brand loyalty

Hypothesis 3b: Destination brand quality has a positive effect on destination brand satisfaction

3.2.4 Destination brand satisfaction

Satisfaction has been explained in different ways in past literature. Some studies explained satisfaction as a comparison between experience and expectation (Petrick, Morais & Norman 2001; Chen & Chen 2010). Other studies referred to it as the degree to which an individual believes an experience evokes positive feelings (Lee, Yoon & Lee 2007; Kotler & Armstrong 2014; Altunel & Erkut 2015). Ibrahim and Gill (2005) described satisfaction as the emotional state of a tourist after experiencing a destination, while Oliver (2014) described it as tourists' judgement about products or service fulfilment. Chen and Chen (2010) noted that satisfaction in the tourism context is primarily referred to as a function of pre-travel expectations and post-travel experiences.

Past studies have widely explored and confirmed the relationship between satisfaction and loyalty (Miguel-Dávila et al. 2010; Nam, Ekinci & Whyatt 2011; Pleshko & Heiens 2015; Wu, Zhou & Wu 2012; San Martín, Herrero & García de los Salmones 2019; Lai, Chu & Petrick 2016). Furthermore, some studies found satisfaction to have a positive effect on tourists' intention to revisit and recommend a destination (Ali, Ryu, & Hussain, 2016; Cevdet Altunel & Erkut, 2015; Kim, 2018; Suhartanto, 2018). Hutchinson et al. (2009) found that satisfaction had a higher influence on word of mouth than on intention to revisit. This implies that tourists'

satisfied with a destination are more likely to recommend the destination to others than revisit themselves. Tasci (2018) tested two different CBBE models and found that satisfaction has a positive effect on loyalty in a cross-brand and cross-market CBBE model. Hence these findings show that satisfied medical tourists' might be positively associated with loyalty.

Moreover, there has been less study on the influence of satisfaction on destination brand image, brand awareness, and perceived quality. A study by Nazari, Ghasemi, and Saeidi (2015) found a positive influence between satisfaction and perceived quality, as well as between satisfaction and brand awareness. Subsequently, Saleem and Sarfraz Raja (2014) found a positive influence between satisfaction and brand image. Therefore, the present study will test the mediating relationship between satisfaction and destination brand image, brand awareness, and perceived quality. Hence, the following hypotheses are proposed for this study,

Hypothesis 4a: Destination brand satisfaction is positively associated with destination brand loyalty.

Hypothesis 4b: Destination brand satisfaction will positively mediate the relationship between destination brand awareness and destination brand loyalty.

Hypothesis 4c: Destination brand satisfaction will positively mediate the relationship between destination brand quality and destination brand loyalty.

3.2.5 Destination brand loyalty

Oliver (1999) provided a comprehensive definition of customer loyalty as:

“... a deeply held commitment to rebuy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same-brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour” (p. 34).

The study further categorised loyalty into two phases; attitudinal phase and behavioural phase of loyalty (Oliver 1999). Other studies have also categorised consumer loyalty into behavioural and attitudinal intentions (Chen & Chen 2010; Zhang et al. 2014; Ekinci, Sirakaya-Turk & Preciado 2013; Han, Kim & Kim 2011). Behavioural intentions which Oliver (1999) referred to as the action stage of loyalty, is the continuous patronage and ability to recommend (Chen & Chen 2010; Zhang et al. 2014, Han, Kim, & Kim 2011). Yoon and Uysal (2005) argued that a positive attitude towards a destination is shown when tourists demonstrate behavioural

intention, which may lead them to recommend to relatives and friends or revisit. An attitudinal phase is defined as the beliefs that value of the product or service received will lead to overall attitude such as repurchase intention (Zhang et al. 2014; Chen & Chen 2010, Han, Kim, & Kim 2011). Oliver (1999) argued that the attitudinal phase of loyalty goes through three stages which he classified as cognitive, affective, and conative stages. The first stage was cognitive and individuals develop loyalty at this stage through comparison with alternative products or services. A deeper sense of loyalty was developed at the second stage (affective stage) as it mainly involved emotions and satisfaction towards the brand. In the last stage (conative stage), consumers build a deeper level of loyalty which leads to a commitment or an intention to behave (Oliver 1999; Han, Kim & Kim 2011; Yuksel, Yuksel & Bilim 2010).

Zhang et al. (2014) classified brand loyalty into three; behavioural, attitudinal, and composite loyalty. Composite loyalty is also known as combined loyalty is the integration of both behavioural and attitudinal loyalty (Zhang et. al 2014). Baker and Fulford (2016) and Chen and Tsai (2007) argue that the degree of loyalty to a destination is usually reflected on the tourist willingness to recommend and intention to revisit the destination. Other studies have argued that an individual's future intention of consuming a product or service is more important than the actual consumption (Jang, Bai, Hu, & Wu, 2009; Petrick, Morais, & Norman, 2001; Yoon, Lee, & Lee, 2010). This is because future intention involves revisiting and recommending the destination to others. It also reflects the importance of consumer loyalty to a destination, which could lead to a positive post-purchase behavioural intention through word of mouth. Additionally, Hutchinson, Lai, and Wang (2009) argued that tourists are more likely to recommend a destination to others if they have revisit intentions.

As a result, tourists' intentions seem to be a salient concept in understanding their decisions on the choice of destination and future motives. Hence, a further contribution to the tourism base knowledge will be gained in an attempt to understand the intention of medical tourists towards a destination. Consequently, the process through which individuals decide on the consumption of medical tourism services might be an important niche to be considered in tourism marketing research. Medical tourists' intentions to consume medical services of a destination remain complex as further studies need to be done for successful positioning and promotion of a medical tourism destination. It is also vital for destination marketers to understand how destination branding affects the intention of medical tourists.

The medical tourism industry has become an essential sector in tourism, attracting individuals from different parts of the world for medical treatment. Malaysia has been one of the most attractive destinations for medical tourism due to its cost of medical services, quality of treatment, the less waiting time for major medical procedures and a vast tourist attraction. Therefore, it will be logical to analyse destination branding for medical tourism in Malaysia, with useful data from medical tourists, to establish a better marketing strategy for the medical tourism industry. For this reason, the present study will examine the influence of destination branding factors on satisfaction and behavioural intentions of medical tourists' by testing the above-mentioned hypotheses.

3.3 Summary

The current chapter extensively reviewed and discussed destination branding models and their proposed impact on the medical tourism industry. The derived factors are destination brand image, destination brand awareness, and destination brand quality, destination brand satisfaction, and destination brand loyalty. Destination brand image was extended to cover cognitive, affective and conative image, while destination brand loyalty was also extended to cover medical tourists' intention to revisit and willingness to recommend the destination to others. A proposed destination brand model for medical tourism that interlinks all variables was derived, and proposed hypotheses presented.

Chapter 4: Methodology 1 (Operationalisation of variables)

The previous chapter examined the destination branding models and the resulting factors that influence tourists' choice of a destination. To establish the research model, it is imperative that the proposed factors are operationalised and tested to determine their influence on medical tourism destinations. The current chapter presents the first part of the methodology by presenting how each construct in the present study will be operationalised. The second part of the methodology (Chapter 5) presents the decisions regarding research epistemology and approach to the research, and data collection method.

The first section of this chapter identifies and justifies the pre-existing measurement scales chosen to capture each of the three independent variables of destination brand image, destination brand awareness, and destination brand quality. The second section identifies and justifies the pre-existing measurement scales chosen to capture each of the two dependent variables which are; destination brand satisfaction, and destination brand loyalty. The list of the items to be used in the present study is presented at the end of each construct.

4.1 Operationalisation of Independent Variables

4.1.1 Destination Brand Image

There has been extensive research on the destination brand image which is likely to influence tourists' behaviour, intentions, and preference of a destination. Three distinct destination brand image constructs, namely, cognitive image, affective image and conative image, have been identified and widely used in the past studies (Jang & Feng, 2007; Batra & Ahtola, 1991; Boo, Busser, & Baloglu, 2009; Chen, 2001; Echtner & Ritchie, 1993; Konecnik & Gartner, 2007; Russell, Ward, & Pratt, 1981; Stylos & Andronikidis, 2013). The measurement scales were chosen to assess tourists' destination brand image and originate from past studies. Some items were modified, but others remain similar to the items capturing each construct. Items that were modified were tested for validity.

The measurement scale chosen for capturing medical tourists' destination brand image was developed by Echtner and Ritchie (1993), and Russell et al. (1981). Russell et al.'s (1981) measurement scale development focused on the affective image, where the study measured 105 commonly used items describing affective behaviour. The study was later validated by Batra and Ahtola (1991) who apply an evaluative semantic differentiation scale in which the items tailored specifically to brands. Moreover, Echtner and Ritchie (1993) developed a more generalised destination brand image measurement scale which was made up of 34 items. The study applied a six-point Likert-type scale, and a Cronbach's alpha score of 0.72 to determine the reliability of the items.

The measurement scale operationalised by Echtner and Ritchie (1993) attracted criticism despite wide-spread adoption. Dann (1996), emphasised on the need for investigators to bring the tourists' back to the investigation while supporting Pearce (1982) who argued that the attributes for destination image were 'chosen at random' and as such needed a more qualitative approach. In a later study, Pike (2002) reviewed 142 journal articles on destination image published between 1973 and 2000. The study revealed that 114 articles used a structured questionnaire, of which less than half used the qualitative method at the questionnaire design stage. However, in the context of our study, these criticism is unlikely to pose a risk as Pike (2002) concluded that the multidimensional method of measurement is accepted as there is no particular alternative to measure destination image. Further studies by Pike (2007) supported this and highlighted that only a few research has reported this criticism in destination attributes and tourism literature, and as such is still insignificant.

Although these studies did not categorically divide the items into distinct constructs, later studies (Chen, 2001; Chen & Funk, 2010; Kim & Morrision, 2005) adapted the items in measuring the influence of destination brand image on tourists. Konecnik and Gartner (2007) described the cognitive image as what tourists know or think they know about a destination; the affective image is for how they feel about such knowledge, and conative image as the action they take about how they feel or the information available to them. Hence, the measurement scale represents three core constructs (sub-constructs) of the cognitive, affective, and conative image, with six, three, and four items respectively. The study used a 5-point Likert-type scale ranging from "strongly disagree" (1) to "strongly agree" (5), with Cronbach's alpha reliability test ranging from 0.73 to 0.84.

More recently, several studies adapted the three core constructs with modifications as destinations utilise different strategies to attract tourists (Qu, Kim & Im 2011; King, Chen & Funk 2015; Stylos et al. 2016, 2017). The present study will adapt more recent measurement scales by Stylos, Vassiliadis, Bellou and Andronikidis (2016) to measure the perception of a destination for medical tourists. The scale captures the three sub-constructs of destination image and has shown high reliability. In one study, Stylos et al. (2017) adapted the scale and investigated the relationship between destination brand image and revisit intention among British and Russian tourists. They found cognitive, affective, and conative image constructs to have a positive relationship with tourist intention to revisit a destination (n=1362 British, n=1164 Russians). The following table (Table 4.1) shows the Cronbach's alpha and the number of items that were used to capture the destination brand image variables in different studies.

Table 4.1: Cronbach's Alpha and Number of items for DBI in previous studies

<i>Studies</i>	<i>Number of items</i>			<i>Cronbach's alpha</i>		
	<i>Cognitive Image</i>	<i>Affective Image</i>	<i>Conative Image</i>	<i>Cognitive Image</i>	<i>Affective Image</i>	<i>Conative Image</i>
Qu et al. (2011)	5	4	3	0.88	0.65	0.76
King et. al. (2015)	14	3	3	0.92* 0.90**	0.76* 0.85**	0.80* 0.85**
Stylos, Vassiliadis, Bellou and Andronikidis (2016)	21	7	8	0.82	0.92	0.92
Stylos et al. 2017	21	7	8	0.91* 0.92**	0.92* 0.92**	0.86* 0.87**
Konecnik & Gartner (2007)	6	3	4	0.84	0.74	0.73

Note: *UK, **Russia (Stylos et al. 2017); *data collected 3 weeks after an event, ** collected 10 months after the event (King et al. 2015)

Stylos, Vassiliadis, Bellou and Andronikidis's (2016) measurement scale is chosen in the present study as it captures all three constructs of interest. For the cognitive image of individuals, the study measured the perceived consequence (PC) and evaluated importance (VC). A 7-point Likert-type scale was employed to rate the items, ranging from "1 = strongly disagree" to "7 = strongly agree" (PC), and "1 = totally unimportant" to "7 = totally important"

(VC), and “0 = I do not know/I cannot answer” to avoid false neutral evaluations. For the affective image construct, a 7-point semantic differential scale was used to measure the 8 items while 7-point Likert-type scale with anchors of “1 = strongly disagree” to “7 = strongly agree”, with an option of “0 = I cannot answer” was utilised for conative image (Stylos et al. 2016). This scale is appropriate in the present study because it showed high and consistent reliability. Furthermore, the study has more items that will help to capture more in-depth analysis especially when analysing using Structural Equation Modelling.

The following adapted items (shown in Table 4.2) will be used to determine medical tourists’ cognitive, affective, and conative image of Malaysia as a medical tourism destination. The original scale was developed by Echtner and Ritchie (1993), and Russell et al. (1981), however, Stylos, Vassiliadis, Bellou and Andronikidis (2016) categorised into different sub-constructs, free from criticism, and have shown better reliability with their slightly modified items. Some of the items have been modified for clarity and to ease understanding of respondents. Any changes are highlighted in italic and underlined text.

Table 4.2: Items capturing Cognitive, Affective, and Conative destination image

Original Sub-Construct: Cognitive Image		
<i>No</i>	<i>Adapted items</i>	<i>Operationalised items</i>
1	Good quality of infrastructure	Good quality of <i>medical facilities & infrastructure</i>
2	Standard hygiene & cleanliness	As-is
3	Political stability	As-is
4	Good reputation of destination	<i>The</i> good reputation of <i>the</i> destination
5	Unpolluted/unspoiled natural environment	As-is
6	Implementation of policies towards sustainability & environmental protection	As-is
7	Availability of hotels/lodgings/camping	As-is
8	Relaxing/avoidance of daily routine	As-is
9	Safe place to travel	<u>A</u> safe place to travel
10	Easily accessible from permanent residence	As-is
11	Family-oriented destination	As-is
12	Good value for money	As-is
13	Satisfactory customer care on behalf of various professionals	Satisfactory <i>medical</i> care on behalf of various professionals
14	Various shopping opportunities	As-is
15	Interesting cultural attractions	As-is

16	Interesting historical monuments & relevant events	As-is
17	Nice opportunities for biking/fishing/hunting/climbing	As-is
18	Nice opportunities for wine-tourism	Nice opportunities for <i>medical</i> tourism
19	Good climate	As-is
20	Great beaches	As-is
21	Beautiful landscape	As-is
Original Sub-Construct: Affective Image		
<i>No</i>	<i>Adapted items</i>	<i>Operationalised items</i>
1	Rate Greece as a tourism destination for the following set of feelings: Unpleasant - Pleasant	Rate <i>Malaysia</i> as a <i>medical</i> tourism destination for the following set of feelings: Unpleasant - Pleasant
2	Gloomy - Exciting	As-is
3	Distressing - Relaxing	As-is
4	Negative - Positive	As-is
5	Unenjoyable - Enjoyable	As-is
6	Unfavorable - Favorable	As-is
7	Boring – Fun	As-is
Original Sub-Construct: Conative Image		
<i>No</i>	<i>Adapted items</i>	<i>Operationalised items</i>
1	Greece as a tourism destination.....Was always a dream-destination to visit sometime during my lifetime	<i>Malaysia</i> as a tourism destination.....Was always a dream-destination to visit sometime during my lifetime
2	Expresses myself as a suitable vacation choice	As-is
3	Helps me put in use knowledge that I have (i.e. history, geography, philosophy)	As-is
4	Was always/constitutes a personal goal for vacations	As-is
5	As a choice, it stems from a personal need of mine that had to be fulfilled	As-is
6	Has evoked a persistent wish to visit it	As-is
7	Encapsulates positive attributes that help in the growth of my personality	As-is
8	Makes me believe that my vacations there may be the best reward/gift I can offer myself	As-is

4.1.2 Destination Brand Awareness

The measurement scale for destination brand awareness was developed by Yoo, Donthu and Lee (2000); Aaker (1991); and Motameni and Shahrokhi (1998) citing past studies on branding. Other studies (Yoo & Donthu 2001; Arnett, Laverie & Meiers 2003; Pappu & Quester 2006; Boo, Busser & Baloglu 2009; Konecnik & Gartner 2007; Lee & Back 2008) applied and validated this measurement scale with a few modifications. Aaker (1991) focused on the product category to describe brand awareness as a consumers' ability to recall or recognise a brand as a member of a certain product category. Yoo, Donthu and Lee's (2000) measurement scale development was validated by Washburn and Plank (2002) and used six items in a multi-item scale to measure a mixed form of brand awareness and brand association. The study focused on individual brands and was not tailored to a destination. It utilised a 5-point Likert-type scale, with the reliability of 0.94 determined. Subsequently, Arnett, Laverie and Meiers (2003) adapted these measures and similar to (Pappu, Quester & Cooksey 2005) considered brand awareness as a separate dimension not mixed with brand association.

As past studies focused on product and brand categories, Konecnik and Gartner (2007) and Boo, Busser and Baloglu's (2009) study focussed on a destination, asserting that brand awareness describes the strength of a brands presence in the mind of tourists. Despite Konecnik and Gartner's (2007) focussed measurement scale on a destination, the study measured only two items with a 5-point Likert-type scale. The Cronbach's alpha was 0.61 which makes it below the reliability threshold of 0.65 (Konecnik & Gartner 2007). Boo, Busser and Baloglu (2009) used a 7-point Likert-type scale from (1) "strongly disagree" to (7) "strongly agree" to test four items measuring brand awareness. Cronbach's alpha of 0.88 was determined and the study focused its measurements on a destination, making it suitable for a measurement of a medical tourism destination. Thus, the present study has chosen to adopt the widely used and validated Boo, Busser and Baloglu's (2009) as one of the scales to measure medical tourists perspective of Malaysia as a destination for medical tourism.

In-depth literature review revealed that brand awareness is one of the most important components of brand equity and plays an important role in the travel decision process (Keller 1993). In the brand equity model of a destination, brand awareness is the first and necessary step leading to post-purchase behaviour (Konecnik & Gartner 2007). Keller's (2001) brand equity pyramid referred to it as brand salience and an important step in building brand equity.

Im et al. (2012) note that a positive strong brand awareness will lead to a positive purchase intention. Hence, researchers (Aaker 1991; Keller 1993) have acknowledged in their different models that the strength of awareness is an important component of brand equity. Further findings also suggest the appeal for potential tourist will likely increase only when awareness has been achieved. Hence, in terms of a destination, the component of brand awareness can be referred to as the level of information and knowledge a tourist hold about a particular destination. As a result, brand awareness can be measured to determine the perception of medical tourists towards a destination as utilised in brand equity models.

In recent years, various studies have used destination brand awareness for determining the extent a destination is perceived as important in the mind of a tourist (Im et al. 2012; Yousaf & Amin 2017; Yang, Liu & Li 2015; Dwivedi et al. 2016; San Martín, Herrero & García de los Salmones 2019; Ferns & Walls 2012). Yousaf and Amin (2017) applied the scale in determining the relationship between dimensions of destination brand equity. They found that a causal relationship exists between destination awareness, image, perceived quality, and loyalty. This means that a destination will have a better image if attributed by tourist as high brand awareness destination, and this will lead to higher quality and eventually to behavioural intention. Additionally, San Martín, Herrero and García de los Salmones (2019) explored the consumer-based brand equity of a destination with a focus on individuals visiting Cantabria in the north of Spain. They found that destination brand awareness to have a positive influence on the development of brand equity.

Konecnik and Gartner's (2007) brand equity model which was tailored to travel destination suggests that like other brand equity constructs, brand awareness is an important element of brand equity and could lead to the recommendation and revisit intentions. Moreover, from an individual tourist's perspective, Ferns and Walls (2012) conceptualised brands and destination brand equity based on their perception a particular destination brand and its components. The study tested five items measuring brand awareness, and found that brand awareness has a positive impact on purchase intention. Cronbach's alpha of 0.89 was determined and the study focused its measurements on individual perception of a particular destination, making it one of the suitable measurement scales for measuring the perception of medical tourists towards a destination.

Apart from the focus on the destination, strong reliability score (0.88 and 0.89), and a reasonable number of items (four and five items) compared to other studies, most of these recent studies have adapted Boo, Busser & Baloglu (2009); Ferns & Walls (2012) in their research. The following table (Table 4.3) shows the number of items and reliability scores (Cronbach's alpha) reported in previous studies that have used this scale.

Table 4.3: Cronbach's Alpha and Number of items for DBA in previous studies

<i>Studies</i>	<i>Number of items</i>	<i>Cronbach's alpha</i>
San Martín, Herrero, & García de los Salmones (2019)	3	0.87
Yousaf & Amin (2017)	3	0.85
Dwivedi et. al (2016)	5	0.89
Yang, Liu, and Li (2015)	3	0.75
Im et. al. (2012)	3	0.70
Ferns and Walls (2012)	5	0.89
Boo, Busser & Baloglu (2009)	4	0.88
Lee & Back (2008)	2	0.79

The adapted items used to assess destination brand awareness are listed below in Table 4.4 with a few modifications. For any changes made, the texts are underlined and highlighted with italic.

Table 4.4: Items capturing destination brand awareness

Original construct: Destination brand awareness		
<i>No</i>	<i>Adapted items</i>	<i>Operationalised items</i>
1	I am aware of the place as a travel destination	I am aware <i>of Malaysia as a medical tourism</i> destination
2	This destination has a good name and reputation	This destination has a good reputation
3	I can recognise the destination among other similar destinations	I can recognise <i>Malaysia</i> among other similar <i>medical tourism</i> destinations
4	Some characteristics of the destination come to my mind quickly	<i>The</i> characteristics of <i>this</i> destination come to my mind quickly, when I think about <i>medical tourism</i>
5	I can quickly recall the marketing about the destination	As-is

4.1.3 Destination Brand Quality

There has been extensive research on destination brand quality (DBQ) that is likely to influence tourists' preference of a destination. Parasuraman, Zeithaml and Berry (1988) developed a multiple-item scale called SERVQUAL to measure perceived service quality. The study developed 22 items with a focus on retailing and service organisations, and has been widely adopted across several industries (Oh 1999; Keller 1993; Aaker 1991, 1996). Parasuraman et al.'s (1988) scale were tested and validated by Bojanic and Rosen (1994); Saleh and Ryan (1991) in the hospitality sector. Saleh and Ryan (1991) applied the model to the lodging industry, while Bojanic and Rosen (1994) tested the model in the restaurant industry.

Other studies have attempted to develop and apply a scale measurement for perceived service quality in different sectors (Knutson et al. 1993; Patton, Stevens & Knutson 1994; Barsky 1992; Getty & Thompson 1994; Dodds, Monroe & Grewal 1991; Dabholkar, Thorpe & Rentz 1996). Knutson et al.'s (1993) 26-item scale called LODGSERV focussed on measuring expectations of service quality specifically for hotel experiences, while Dodds, Monroe and Grewal's (1991) measurement scale is focused specifically on the products and not destination. Furthermore, several studies in the early 2000s modified and applied Parasuraman, Zeithaml and Berry's (1988) measurement scale for perceived quality and applied it in different sectors (Yoo, Donthu & Lee 2000; Yoo & Donthu 2001; Arnett, Laverie & Meiers 2003; Pappu, Quester & Cooksey 2005; Baker & Crompton 2000). Yoo, Donthu and Lee's (2000) six-item scale development was validated by Yoo and Donthu (2001). Moreover, the study was focused on the consumer product brand and not tailored to a destination.

The measurement scale chosen for capturing respondents destination brand quality was developed by Konecnik and Gartner (2007). When applied to a destination, Konecnik and Gartner (2007) identified brand quality as the main dimension of consumer-based brand equity which means that perceived service quality is a vital element affecting tourists' purchase intention. Konecnik and Gartner's (2007) measurement scale captures tourists perceived service quality towards a destination. The scale represents aspects of quality such as accommodation, infrastructure, and safety. It consists of five items measured on a 5-point bipolar semantic differential Likert-type scale, where 1 = "strongly disagree" and 5 = "strongly agree".

Several studies have used Konecnik and Gartner's (2007) scale in different scenarios (Bianchi & Pike 2011; Boo, Busser & Baloglu 2009; Quintal & Polczynski 2010; Žabkar, Brenčič & Dmitrović 2010; Pike et al. 2010). Pike et al. (2010) and Bianchi and Pike (2011) applied this measurement scale in Australia as a long-haul destination for tourists in emerging markets with a focus on South American tourists, while Žabkar, Brenčič and Dmitrović (2010) focussed on Slovenia as a tourist destination. Recently, more studies have used the measurement scale in various scenarios (Yousaf & Amin 2017; Pike & Bianchi 2016; Yang, Liu & Li 2015; San Martín, Herrero & García de los Salmones 2019; Bianchi, Pike & Lings 2014). In one study, Yang, Liu and Li (2015) examined the impact of tourists' experience on consumer-based brand equity for a destination with a focus on mainland Chinese tourists. They found destination brand quality to positively impact the behavioural intention of tourists (n=502).

The following table (Table 4.5) shows the number of items and the Cronbach's alpha (internal reliability test) of a range of studies that have used this scale.

Table 4.5: Cronbach's Alpha and Number of items for DBQ in previous studies

<i>Studies</i>	<i>Number of items</i>	<i>Cronbach's alpha</i>
San Martín, Herrero, & García de los Salmones, 2018	3	0.82
Yousaf & Amin (2017)	7	0.76
Pike & Bianchi (2016)	4	0.93
Yang, Liu, and Li (2015)	4	0.92
Bianchi, Pike & Lings (2014)	4	0.95
Bianchi & Pike (2011)	3	0.92
Zabkar et. al. (2010)	5	0.73
Pike et. al. (2010)	4	0.93
Boo et al. (2009)	4	0.91
Konecnik & Gatner (2007)	5	0.84

Konecnik and Gartner's (2007) measurement scale is appropriate for the present study as it captures perceived service quality specifically designed for tourist destinations. The measurement scale has shown high reliability and the subsequent studies also indicated consistent reliability measures when tested. Additionally, other measurement scales were applied in different products categories and sectors of the hospitality industry and not directed to the destination as a brand. Adapting these scales might not be suitable for the present study.

Moreover, the chosen measurement scale of Konecnik and Gartner (2007) captures the extent to which tourists perception of a destination’s quality of infrastructure and non-physical aspects affect brand performance. Thus this scale is considered appropriate for the present study.

The following adapted items (shown in Table 4.6) will be used to determine the perception of medical tourists of the quality of medical services in Malaysia.

Table 4.6: Items capturing destination brand quality

Original construct: Destination brand quality		
<i>No</i>	<i>Adapted items</i>	<i>Operationalised items</i>
1	High quality of accommodation	As-is
2	High quality of infrastructure	<u>The high quality of <i>medical</i> infrastructure and facilities</u>
3	High level of cleanliness	<u>The high quality of cleanliness <i>at the medical facilities</i></u>
4	High level of personal safety	As-is
5	Appealing local food (cuisine)	As-is

4.1.4 Section Summary

Three key independent variables of tourist destination brand image; awareness and quality are proposed as key variables that are likely to influence medical tourists’ satisfaction and behavioural intentions towards Malaysia. A pre-existing measurement scale has been chosen to determine each of these constructs. Stylos, Vassiliadis, Bellou and Andronikidis's (2016) measurement scale was chosen to capture medical tourists destination brand image incorporating cognitive image, affective image, and conative image. These three constructs are captured through a set of 21, seven, and eight items respectively. Boo, Busser & Baloglu's (2009); Ferns & Walls (2012) measurement scales comprising of four and five items respectively were combined to capture respondents’ awareness of Malaysia medical tourism. Lastly, Konecnik and Gartner's (2007) measurement scale comprising of five items was chosen to capture medical tourists’ perception of quality. The next section describes the measurement scale for the dependent variables: destination brand satisfaction (DBS) and destination brand loyalty (DBL).

4.2 Operationalisation of Dependent Variables

4.2.1 Destination Brand Satisfaction

Oliver (1980) developed a measurement scale to capture the satisfaction of both consumers and non-consumers of flu vaccination. The study developed six items to measure the extent of consumer satisfaction in getting the vaccination. Oliver's (1980) measurement scale was widely adopted, validated and applied in various industries in the 1980's (Westbrook & Oliver 1981; Oliver 1981; Oliver & Linda 1981). Westbrook and Oliver (1981) adopted the measurement scale with some modifications to measure health, marital, life, and job satisfaction. Later, Oliver (1981) refined the measurement scale and applied it to the retail industry, while Oliver and Linda (1981) tested and applied the measurement scale as a two-stage measure to determine the consumer satisfaction for garments.

Other studies have attempted to develop and apply a scale measurement for brand satisfaction in different sectors (Spreng, MacKenzie & Olshavsky 1996; Westbrook & Oliver 1991; Oliver 1997; Oh 1999; Oliver, Rust & Varki 1997). In one study, Oh (1999) applied the measurement scale in the hospitality industry, specifically testing tourists in two large luxury hotels in the north-eastern city of United States. The study found that the perception of a destination has a negative relationship with brand satisfaction. Rather, perception is found to have a significant influence on consumer satisfaction through perceived service quality (n=545). This finding is somewhat contradictory to Oh & Parks's (1996) review that supported a positive relationship among satisfaction and post-purchase behaviour. In another study, Westbrook and Oliver (1991) acknowledged brand satisfaction as a post-purchase behaviour; but applied the modified measurement scale to determine the interrelationship between patterns of consumption emotion and satisfaction. Their study measured identified five different patterns which are; happy/content, pleasant-surprise, unemotional, unpleasant-surprise, and angry/upset. They found that only two patterns (happy/content and pleasant-surprise) are positively associated with satisfaction, while the other three (unemotional, unpleasant-surprise, and angry/upset) were negatively associated with satisfaction (n=125).

Moreover, several studies in the early 2000s modified and applied Oliver's (1980) measurement scale for brand satisfaction (Bigné, Sánchez & Sánchez 2001; Hellier et al. 2003; Bigné, Andreu & Gnoth 2005; van Dolen, de Ruyter & Lemmink 2004). Bigné, Andreu and

Gnoth (2005) investigated how tourists' emotions in a theme park destination influence satisfaction and behavioural intention. They found that emotions have a positive influence on satisfaction, and satisfaction directly influences behavioural intention. A study by Hellier et al. (2003) developed a general service sector model of repurchase intention and applied the measurement scale to different insurance companies. They found that brand satisfaction has a strong direct influence on brand preference. Additionally, their study found that brand satisfaction does not have a direct influence on repurchase intention, rather it has an indirect influence through brand preference. This shows that this measurement scale might be suitable to apply in the present study measuring the satisfaction of medical tourists.

The measurement scale chosen for capturing respondents destination brand satisfaction was developed by Bigné, Andreu and Gnoth (2005). The five-item scale represents different aspects of destination satisfaction and captures the extent of tourists' satisfaction of a particular sector of a destination (e.g., theme parks). These items were measured using a 5-point Likert-type scale, where 1 = "strongly disagree", and 5 = "strongly agree". The present study will use this measurement scale to determine the destination brand satisfaction of medical tourists in Malaysia.

Several studies have used Bigné, Andreu and Gnoth's (2005) measurement scale in different scenarios (Lee et al. 2008; del Bosque & Martín 2008; Chen & Tsai 2007; Žabkar, Brenčič & Dmitrović 2010; Quintal & Polczynski 2010). Žabkar, Brenčič and Dmitrović (2010) explored the perception of tourist towards a destination by measuring the extent of their satisfaction, the perception of quality and the resulting behavioural intention. Four different destinations in Slovenia were tested to determine the relationship between the different constructs. It was found that although there is a link between satisfaction and behavioural intention, satisfaction alone is not enough to predict that relationship, rather satisfaction partly mediates the impact of quality on behavioural intention (n=1056).

Recently, more studies have adapted the measurement scale with few modifications in different scenarios (Veasna, Wu & Huang 2013; Jin, Lee & Lee 2015; Prayag, Hosany & Odeh 2013; Kim, Holland & Han 2013; Altunel & Erkut 2015; San Martín, Herrero & García de los Salmones 2019; Rather & Sharma 2016; Kim 2018). Prayag, Hosany and Odeh (2013) tested a model measuring tourists' satisfaction, emotion and behavioural intention. The study confirmed emotions as strong predictors of satisfaction. This implies that positive emotions

(love, joy, and positive surprise) have a significant influence on satisfaction, while negative emotions (displeasure, disappointment, and regret) have a negative influence. Additionally, Prayag, Hosany and Odeh (2013) found a positive relationship exists between satisfaction and behavioural intention, while noting that satisfaction does not mediate the relationship between emotions and behavioural intention (n=248).

Table 4.7, following, shows the number of items and the Cronbach's alpha (internal reliability test) of a range of studies that have used this scale capturing destination brand satisfaction (DBS).

Table 4.7: Cronbach's Alpha and Number of items for DBS in previous studies

<i>Study</i>	<i>Number of items</i>	<i>Cronbach's alpha</i>
San Martín, Herrero, & García de los Salmenes (2018)	3	0.91
Kim (2017)	3	0.89
Rather & Sharma (2016)	4	0.97
Cevdet & Erkurt (2015)	3	0.88
Jin, Lee & Lee (2015)	3	0.91
Prayag et. al. (2013)	3	0.90
Veasna, Wu & Huang (2013)	5	0.93
Kim, Holland & Han (2012)	3	0.89
Zabkar et. al. (2010)	3	0.73
Quintal & Polczynski (2010)	3	0.83
Bigné, Andreu and Gnoth (2005)	5	0.91

Table 8, following, shows the adapted items utilised to determine the extent medical tourists are satisfied with the medical services in Malaysia. Despite the wide adoption of Bigné, Andreu and Gnoth's (2005) measurement scale, Veasna, Wu and Huang's (2013) recently modified measurement scale showed better reliability and has been adapted in the present study. The measurement scale developed by Bigné, Andreu and Gnoth's (2005) focused on a particular activity (theme park) and does not represent a tourist destination as a whole. Therefore, Veasna, Wu and Huang's (2013) measurement scale will be more appropriate for the present study. Table 4.8 below shows the measurement items with some modifications.

Table 4.8: Items capturing destination brand satisfaction

Original constructs: Destination brand satisfaction		
<i>No</i>	<i>Adapted items</i>	<i>Operationalised items</i>
1	I am sure it was the right thing to be a tourist in (X)/(Y)	I am sure it was the right thing to be a <u>medical</u> tourist in <u>Malaysia</u>
2	Using (X)/(Y) has been a good experience	Using <u>the medical services in Malaysia</u> has been a good experience
3	I feel good about my decision to visit (X)/(Y)	I feel good about my decision to visit <u>Malaysia as a medical tourist</u>
4	I have truly enjoyed (X)/(Y)	I have truly enjoyed <u>the medical services in Malaysia</u>
5	I am satisfied with my decision to visit (X)/(Y)	I am satisfied with my decision to visit <u>Malaysia as a medical tourist</u>

Veasna, Wu and Huang's (2013) measurement scale is appropriate for the present study as it captures the destination brand satisfaction designed for international tourists. Some of the other measurement scales were applied to different product categories or other hospitality sectors, which do not fit the present study. Moreover, this measurement scale has also shown high reliability (0.93), with subsequent studies showing consistent reliability measured when tested. Veasna, Wu and Huang's (2013) measurement scale of destination brand satisfaction captures respondents' satisfaction on a 7-point Likert-type scale (i.e.1 = "strongly disagree" to 7 = "strongly agree") and will be applied in the present study.

4.2.2 Destination Brand Loyalty

The measurement scale chosen to capture destination brand loyalty in the present study is developed by Zeithaml, Berry and Parasuraman (1996). In total, five items were taken from their measurement of behavioural and financial consequences of service quality that was used to capture the behavioural intention of consumers.

Before Zeithaml, Berry and Parasuraman's (1996) measurement scale development, some studies attempted to develop a measurement scale for brand loyalty (Beatty, Homer & Kahle 1988; Backman & Crompton 1991; Cronin & Taylor 1992; Boulding et al. 1993). Cronin and Taylor's (1992) measurement scale used only one item to measure the behavioural intention, while Boulding et al. (1993) used 2-items scale in their study. Despite a limited number of

items used, both studies found that brand satisfaction and quality are significant to brand loyalty (Boulding et al. 1993; Cronin & Taylor 1992).

Several studies have used Zeithaml, Berry and Parasuraman's (1996) measurement scale to investigate the tourists intention to revisit and recommend a destination (Baker & Crompton 2000; Oppermann 2000; Maio Mackay 2001; Back & Parks 2003; Bigné, Sánchez & Sánchez 2001; Chi & Qu 2008; Lam & Hsu 2006; Kim & Kim 2005; Konecnik & Gartner 2007; Boo, Busser & Baloglu 2009). Kim and Kim (2005) examined the dimensions of brand equity and how it influences organisational performance in the hospitality industry, specifically luxury hotels and chain restaurants. Their study found that brand loyalty, brand image, and perceived quality are important components of consumer-based brand equity, and has a positive relationship with luxury hotels and chain restaurants performance. Specifically, brand loyalty has a significant positive effect on luxury hotel performance only and not o chain restaurants. Therefore, this relationship might be similar to medical tourists when measured with Zeithaml, Berry and Parasuraman's (1996) measurement scale.

In one study, Bigné, Sánchez and Sánchez (2001) explored the relationship between tourists' perceived image of a destination and their behavioural intention. Their study adapted Zeithaml, Berry and Parasuraman's (1996) measurement scale and found that a positive correlation exists between the destination image and behavioural intention variables. This implies that the destination image is a vital factor in influencing the choice of a travel destination. Hence, medical tourists' perception of a positive destination image will likely affect their post-purchase behaviour. Therefore, satisfied medical tourists can revisit or recommend a destination with an improved image to relatives or family members. In another study, Chi and Qu (2008) proposed an integrated model to understanding destination loyalty by examining its relationship with the destination image and tourists' attributes. They found that tourists' destination loyalty was enhanced by high satisfaction and a positive destination image. This implies that destination brand loyalty has a causal relationship with satisfaction and image, as a result destinations have to improve on their image to satisfy tourists which might enhance their intention to recommend or return to the destination in future.

Moreover, several recent studies have adopted, modified, and used Zeithaml, Berry and Parasuraman's (1996) measurement scale to measure tourists' behavioural intention (Yousaf & Amin 2017; Kim 2018; Stylos et al. 2016, 2017; Rather & Sharma 2016; Pike & Bianchi 2016;

Yang, Liu & Li 2015; Bianchi, Pike & Lings 2014; Jin, Lee & Lee 2015; Bianchi & Pike 2011). The measurement scale operates using a 7-point Likert-type scale from “strongly disagree” (1) to “strongly agree” (7). Zeithaml, Berry and Parasuraman's (1996) reported a reliability test of 0.93 and has been widely used. Kim (2018) explored the effect of tourists’ experience on their behavioural intention. The study found a direct, as well as an indirect relationship, exists between tourists’ experience and behavioural intention through destination image and satisfaction. Additionally, tourists’ experience was found to be the most influential determinant of behavioural intention. Therefore, tourists who express a positive image of a destination are also satisfied with the destination and will likely revisit or recommend the destination in future.

In one study, Jin, Lee and Lee (2015) examined the influence of tourists’ perception of quality experience on destination image, perceived value, satisfaction, and behavioural intention. They found that perceived value, satisfaction, and image have a significant relationship with behavioural intention. Additionally, the study found that satisfaction has a significant mediating relationship between image and behavioural intention. Therefore, tourists’ satisfaction is an important motivation to revisit and positively recommend a destination. Another study by Rather and Sharma (2016) investigates the relationship between brand commitment, brand identification, brand satisfaction and brand loyalty with focus on the hospitality industry in India. Their study found a significant and positive relationship between all constructs which means that an interrelationship exists between brand commitment, satisfaction, identification and loyalty. Therefore, both studies show that Zeithaml, Berry and Parasuraman's (1996) measurement scale can be applied in different sectors of the economy with Jin, Lee and Lee (2015) focused on the water park and Rather and Sharma (2016) on hospitality (hotel) industry.

The following table (Table 4.9) shows the number of items and reliability scores (Cronbach’s alpha) reported in previous studies.

Table 4.9: Cronbach's Alpha and Number of items for DBL in previous studies

<i>Study</i>	<i>Number of items</i>	<i>Cronbach's alpha</i>
Yousaf and Amin (2017)	3	0.75
Kim (2017)	3	0.91
Stylos et al. (2017)	4* 4*	0.92* 0.94**
Rather and Sharma (2016)	6	0.90
Pike and Bianchi (2016)	4	0.88
Stylos et al. (2016)	4	0.94
Yang, Liu and Li (2015)	3	0.91
Jin, Lee and Lee (2015)	3	0.94
Bianchi, Pike and Lings (2014)	3	0.95
Bianchi and Pike (2011)	3	0.84
Zeithaml, Berry and Parasuraman (1996)	5	0.93

Note: *UK, **Russia

Zeithaml, Berry and Parasuraman's (1996) measurement scale is appropriate for the present study as it captures the ability to revisit and recommend the destination to friends and relatives in the future. Their measurement scale has been widely used and applied in different hospitality sectors. Additionally, this measurement scale has shown high reliability ($\alpha = 0.93$), with subsequent studies showing consistent reliability measures when tested. The adapted items used to assess the destination brand loyalty are listed below in Table 4.10 with modifications made for clarity and ease of understanding.

Table 4.10: Items capturing destination brand loyalty

Original constructs: Destination brand loyalty		
<i>No</i>	<i>Adapted items</i>	<i>Operationalised items</i>
1	Say positive things about XYZ to other people	<i>I will</i> say positive things about <u>Malaysia medical tourism</u> to other people
2	Recommend XYZ to someone who seeks your advice	<i>I would</i> recommend <u>Malaysia</u> to someone who seeks advice <u>for medical tourism</u>
3	Encourage friends and relatives to do business with XYZ	<i>I would</i> encourage friends and relatives to <u>visit Malaysia for medical tourism</u>
4	Consider XYZ your first choice to buy services	<i>I consider <u>Malaysia as the</u> first choice <u>for medical tourism</u></i>
5	Do more business with XYZ in the next few years	<i>I will revisit <u>Malaysia</u> in the next few years <u>if the need arises</u></i>

4.2.3 Section Summary

The measurement scale for capturing the dependent variables of medical tourists' destination brand satisfaction and loyalty was adapted from pre-existing measurement scales. Veasna, Wu and Huang's (2013) measurement scale comprising of five items have been chosen to measure the destination brand satisfaction of medical tourists. Zeithaml, Berry and Parasuraman's (1996) measurement scale was chosen to capture medical tourists intention to revisit and recommend Malaysia as a destination. The construct is captured through a set of five items.

4.3 Chapter Summary

This chapter presented how the dependent and independent variables to be used in the present study were operationalised. Pre-existing and robust measurement scales were chosen for capturing the independent variables of destination brand image, awareness and quality. These scales are represented by 36, four, and five items respectively. The two dependent variables of destination brand satisfaction and loyalty were also captured through pre-existing and robust measurement scales. These scales were represented by five items each. The next chapter presents the methodological design and decisions regarding the research approach and for collecting data

Chapter 5: Methodology 2

This chapter presents the second part of the research methodology which is crucial to attaining the research objectives. This chapter is arranged into two sections, the first section presents the pre-data collection decisions and describes the research design and rationale. The section also explains and justifies all pertinent choices regarding the chosen research paradigm, epistemology, ontology, method and approach to research used. This section also provides the rationale for the choice of data collection i.e., questionnaire, and concludes with details of data collection and sample size determination

The second section presents post-data collection decisions and the rationale behind these choices. The section covers the decisions about data coding processes, the steps undertaken to clean the data and handle missing data. It also presents a detailed description of respondent profiles.

5.1 Pre-data collection decisions

5.1.1 Research design

Numerous scholars have posited various ways of considering the epistemological and ontological approaches to research. These ideologies often considered to be knowledge and how it is acquired, form the basis of research. Some of the paradigms and approaches adopted in the present study are explained in this section.

Crotty (1998) suggests that four basic elements of any research process exist, and researchers need to find answers to these elements. These four elements pertain to the methods, the methodology described as the action plan, process or strategy behind the choice of methods, the theoretical perspective informing the methodology, and the epistemology embedded in both theoretical perspective and methodology. Although these questions appear straight forward, whether philosophical learnings should favour a particular method of inquiry or dictate the research process is still being debated. Critically, some researchers view that details about research methods are overemphasized at the expense of explanations about philosophical stances of epistemology and ontology (Bryman 1984; Tashakkori & Teddlie 1998). Nevertheless, Higgs (2001) proposed a five-stage model of research paradigm as an alternative

way to tackle the issue. The model comprises of research paradigm, research goals, philosophical stance, research approaches and methods. The approach is similar but slightly different from Crotty's (1998) four-stage (methods, methodology, theoretical perspective and epistemology) research framework.

Inspired by earlier work of Denzin and Lincoln (2005) who proposed five phases of the research process, Wellington and Szczerbi ski (2007) added to the discussion by developing a framework of six layers of discussion in the research process. Although the term 'layers' does not capture the complexity of the process, it was the closest term to remind that the process is not linear as reflected by Saunders, Lewis and Thornhill's (2016) analogy of 'the research onion'. The layers consist of philosophies, methodological choices, time horizon, approaches to theory development, strategies, and techniques and procedures. The study describes the research onion as a process of unfolding multiple layers of research-oriented decisions which is important for deciding on a choice of design to adopt. The following sections present the layers of research decision for this study as well as the rationale behind such decisions.

This research aims to investigate the influence of destination branding on medical tourist decisions. The research inquiry instrument must, therefore, be designed to capture an insight into tourists' perceptions of destination brand image, destination brand awareness, destination brand quality, destination brand satisfaction and destination brand loyalty that might influence their preference for a destination. The data in the present study is independent of any interpretation or judgement from the researcher. Hence, a positivistic ontological view is adopted with objectivistic epistemology, as there is no direct or indirect relationship between the participants and the researcher. Crotty (1998) defined objectivism as "... *the epistemological view that things exist as meaningful entities independently of consciousness and experience, that they have truth and meaning residing in them as objects and that careful research can attain that objective truth and meaning*" (p.5).

5.1.1.1 Deductive approach

The next level of decision for the present study is to determine the approach that is more suitable for the research being undertaken. There are two main contrasting approaches to the reasoning that a research design can adopt; a deductive or inductive approach (Saunders, Lewis & Thornhill 2016, p.144). In Crotty's (1998) analogy, researchers usually start with a certain

research approach or methodology in mind and then try to find a corresponding epistemology to follow. Previous studies have adopted the same approach to methodological decisions (Rajaratnam et al. 2015; Qu, Kim & Im 2011; Heung, Kucukusta & Song 2010; Sarwar 2013), and hence, the present study was started in the same manner and a decision regarding the approach to methodology was derived after an initial examination of the literature.

The deductive approach follows a positivistic ontology. The deductive approach usually involves developing a theory, and/or hypothesis and designing a research strategy to test the hypothesis. Traditionally, this approach is considered by many as the dominant approach in natural science (scientific approach) as it follows a set pattern of “hypothesis, test, conclude” (Saunders, Lewis & Thornhill 2016). The deductive approach suits the present study because this study is exploring research questions, developing hypotheses based on literature gaps, and testing hypotheses by collecting appropriate data. This approach has been adopted in the present study.

5.1.1.2 Quantitative research

Ary et al. (2010) described the quantitative research method as the use of objective measurement to gather numeric data which will further be used for predetermined hypotheses or to answer questions (p.22). This methodology requires the researcher to be objective, impartial, and independent. Naturally, this approach corresponds with the positivism/objectivism epistemology (Ary et al. 2010, p.23), intending to predict, explain and control social phenomena (Wellington & Szczerbi ski 2007, p. 19). The nature of data in quantitative research is numerical and data analysis is hypothesis-driven as it relies on statistical techniques to explore the relationship between relevant variables. Furthermore, this approach takes a third-person perspective in search of objective and generalisable knowledge. This type of research also adopts an impersonal and passive tone with a typical anonymous writing style (Wellington & Szczerbi ski 2007).

5.1.1.3 Mono-method

The next layer to be addressed in the proposed research onion is the choice of methodology (Saunders, Lewis & Thornhill 2016). Researchers have the choice to adopt single or multiple methods of inquiry. The methodological choice can either be mono, mixed or multi-methods and the aim of selecting a suitable one for the study is to achieve coherence in research design.

The mono method employs the use of one instrument of inquiry. This method is usually associated with a deductive approach to theoretical development where the focus is on using data to test a theory, and a favoured style of data collection and analysis technique is quantitative (p.166). The widely used research instruments are usually surveys which can be conducted through face-to-face (self-administered), telephone, online, or mail (Saunders, Lewis & Thornhill 2016). As the mono-method employs the use of a single data collection technique, the multi-method employs more than one data collection technique. However, researchers can decide to use a mixed method approach where more than one instrument of enquiry is employed by adopting different methodologies (p.166). For instance, this can be the use of both quantitative and qualitative method for one study.

The present study has chosen to undertake the mono-method by employing a single instrument of inquiry, which is through face-to-face (self-administered) contact with potential respondents. Although this method can either be employed with qualitative or quantitative research, the choice of method is sufficient for achieving the study objectives. Hence, the missed and multi-methods were deemed unnecessary for the present study.

x Research enquiry instrument

The use of surveys from a representative cross-section of the population is the most commonly used data collection technique (Ary et al. 2010), and it is considered to be an accurate and a quick method of data collection originating from a particular population segment (Babin & Zikmund 2015; Malhotra 2010). One of the basic functions of survey instruments is to obtain data from respondents scientifically, and it serves as a tool for researchers to achieve their research objectives through measurements of variables of interest (De Vaus 2002).

Questionnaires help researchers to gather the information that addresses the research questions, hence, designing the questionnaire is an important component of the research process as it can significantly affect the quality of data collected (De Vaus 2002). The present study uses a questionnaire as a survey instrument, and most of the questions in the questionnaire were adapted from existing literature with some modifications to fit the context of this research. The data collected through questionnaires can be used for quantitative analysis and it allows researchers to examine multiple variables simultaneously. Specifically, this procedure allows researchers to collect data about opinions, situations or practices at once through the use of

questionnaires and these data could be gathered from a representative sample of people (Babin & Zikmund 2015; Leedy & Ormrod 2016). Questionnaires can be administered through face-to-face (self-administered), telephone, mail or electronically.

A self-administered questionnaire has some advantages. With the right sampling techniques, this method allows the researcher to get the best representative sample and permits higher flexibility of data collection (De Vaus 2002). Additionally, it allows the researcher to collect a broad range of data from respondents and has a higher return rate (Neuman 2014). Furthermore, it presents an opportunity for the researcher to answer complex questions (if any) from the respondents (Fowler 2013, p.72). There are also some disadvantages to using a self-administered questionnaire. First, the respondents may be unwilling or unable to provide an answer that accurately represents their feelings or motive (Malhotra 2010). Additionally, the respondents might also be unwilling to respond to sensitive questions (Malhotra 2010, p. 179).

Mail and online survey methods were not considered for this study as a result of the difficulty obtaining information from respondents. As the present study respondents are medical tourists, the sensitivity behind the release of personal information of patients or previous patients made this method of survey difficult to use. Hence, the present study considers the use of a self-administered questionnaire as a suitable data collection method.

5.1.1.5 Target population

The use of self-administered techniques requires that the researcher travel to meet the potential respondents in person or through their affiliated institutions to request participation. This process eliminated the dependency of obtaining respondents supposed sensitive (email and mail addresses) information from medical institutions that they attended for treatment. The present study adopted a cross-sectional design, where data was collected from a sample drawn from a specified population at a specific point in time as opposed to longitudinal research where data is collected from the population at multiple point in time (Hair, Ringle & Sarstedt 2012; Neuman 2014).

The participants were recruited from different medical institutions in Malaysia. The focus was on the Joint Accreditation Commission (JCI) accredited and Malaysian Healthcare Travel Council (MHTC) approved medical facilities for medical tourism in Malaysia. Other medical facilities where foreign patients seek medical services were also considered. Written

permission was sought from the hospitals for permission to survey the patients after they had received medical treatment and were not in a serious recovery stage. When the permission was granted, the questionnaire was sent, accompanied by a cover letter informing participants that all their responses would be anonymous, and the information would be treated in strict confidence. The minimum age of the participants was 18 years and there was no maximum age limit.

Recruiting the participants from the medical institutions ensured that the researcher obtained a suitable response required for the research. Additionally, it ensured that the confidentiality and anonymity of the participants was maintained as there was no personal information required of them. This means that the participants cannot be identified in future in any way from the data, thus ensuring their complete anonymity and privacy was respected. This practice follows the Swinburne University of Technology human research ethics policy.

5.1.1.6 Sampling method, rationale, procedure and size

Sampling is a process of selecting a segment of an underlying population and a vital part of any empirical research (De Vaus 2002; Saunders, Lewis & Thornhill 2016). According to Hair et al. (2017), “... *sampling involves selecting a relatively small number of elements from a larger defined group of elements and expecting that the information gathered from the small group will enable accurate judgments about the larger group*” (p.139). Two basic sampling designs are; probability and nonprobability sampling. For probability sampling, the study targets all the respondents of a target population, and they all have equal opportunity of being randomly selected. Non-probability sampling on the other hand allows selection of respondents based on prescribed criteria, therefore, a respondent can be selected over another based on purpose (Gantz 2015; Bornstein, Jager & Putnick 2013).

The present study uses random probability sampling (Hair et al. 2017). With all target respondents having an equal opportunity of being randomly selected, all medical tourists that have visited Malaysia for medical purposes received the same questionnaire. Probability sampling ensures a lack of bias in selection as everyone in the target population has an equal opportunity of being selected, it equally ensures a high degree of representation, and it is relatively easy to calculate (Levy & Lemeshow 2013; Brewer & Hanif 2013; Bornstein, Jager & Putnick 2013; Gantz 2015). Some criteria were applied in compliance with ethics

requirements and to ensure the respondents are fit to fill the questionnaire as the researcher is aware of the condition of respondents. These criteria include:

- The respondent will be willing to participate in the survey.
- The respondent must have undergone a medical treatment (minor or major procedures) in a medical facility in Malaysia.
- The respondent would have finished his or her medical treatment before participating in the survey.

There has been debate in the literature as to what an exact sample size for Structural Equation Modelling (SEM) should be (MacCallum et al. 1999; Kline 2011; Hair et al. 2014; Wolf et al. 2013). Wolf et al. (2013) systematically evaluated the sample size by applying the Monte Carlo data simulation techniques and suggested sample size from 30 to 460 depending on the complexity. MacCallum et al. (1999) found that determining the minimum sample size is not invariant across studies, hence, is dependent on the level of commonality of the variables and level of over-determination of the factors. Kline (2011) recommended sample size of 200 for SEM while acknowledging that the complexity of a model might require an increase in sample size.

The determination of appropriate sample size is very important for SEM as it is more sensitive to sample size than other multivariate approaches (Hair et al. 2014; Tabachnick & Fidell 2007). Although there is no agreement on what constitutes a sufficient sample size, Hair et al. (2014) recommend a minimum sample size of 300 for models with seven constructs or fewer, and multiple under-identified constructs. With no specific agreement on sufficient sample size and past studies utilizing about 300, this study will adopt this sample size as a benchmark. Although the actual number of sample size sufficient for SEM is still contentious, this study considers that 300 sample size will be sufficient for the data analysis procedures proposed, namely, Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM).

However, having a huge sample is not advisable either. Hair et al. (2014) suggests that anytime the sample size exceeds 200 to 400 respondents, it is important for the researcher to examine all significant results to ensure they are significant to the study due to increased statistical power. Hence it was important to ensure that a sample from medical institutions across Malaysia was obtained, as it would allow for generalisation of the findings to the broader study

population. Hence, the sample distribution was based on a list of medical institutions in Malaysia where foreigners go for various medical services. By using the self-administered survey option, it was possible to cover all the medical institutions, thereby giving participants an opportunity without bias.

5.1.1.7 Ethical considerations

Swinburne University of Technology has a code of conduct for human research and the present study adhered to all ethical considerations required. An ethics application was submitted with the Swinburne University Human Research Ethics Committee (SUHREC) in October 2018. The application detailed the rationale behind using the self-administered questionnaire as the study instrument and the medical institutions for recruiting potential respondents. Malaysian Healthcare Travel Council (MHTC) estimated that about one million medical tourists visited Malaysia in 2017 and this figure was obtained from different medical institutions in Malaysia. Hence, appropriate permission was required from the medical institution before the survey can be carried out.

With these details, together with information about the respondents' protection, data management, and the survey instrument, full ethics approval was granted by the committee in February 2019. The ethics approval number is 2018/404 (see Appendix 1).

5.1.1.8 Sampling duration and challenges

The current study uses a self-administered questionnaire as an instrument of study, and the target respondents are medical tourists visiting Malaysia from different countries. As a result of privacy violations and sensitivity in the getting the contact details of past medical tourists, the researcher was left with the option of collecting data from the medical tourists who have finished their medical treatments and are about to exit the medical facility. The challenge in getting these medical tourists to participate in the survey is that medical facilities do not allow third parties to have contact with the patients while still within the facility. Hence, initial letters to the medical facilities (requesting permission to conduct a survey) sent between May and June 2019 either did not get a response or were declined.

The International conference of Health-Oriented Tourism and Hospitality (ICoHOTH) was organised in by Sunway University in Malaysia and coincidentally became an opportunity for the researcher to make contacts for data collection. The main aim of attending this conference

was to look at the current issues and trends in medical tourism (as it is related to my research) and to share his research in the process. Additionally, it was an opportunity to network and interact with other researchers, medical tourism practitioners and corporate heads in the medical tourism industry. In a quick turn of events, the researcher shared challenges with collecting data as a result of sensitivity and hospital procedures during networking. Few participants and organisers' provided advice on how to collect data and who to approach in different hospitals.

The networking was very helpful, contacts were made for data collection and it was found that some medical facilities allowed for data to be collected when the patients are discharged from the facility and about the exit. The researcher was not allowed to distribute the questionnaire when the patients were waiting to clear their payments. Rather, the questionnaire was only allowed once patients had been cleared from the medical facility. This ensured that the medical institutions have no conflict of interest with the data collected and was not liable. As a result, the total duration of data collection was approximately five months because the researcher had to visit several different hospitals in Malaysia for data collection.

5.1.1.9 Pre-Test of the questionnaire

The questionnaire for this study was developed by adopting items from past literature with a minor amendment to suit the study, including a range of demographic variables. Steps were taken to pre-test the instruments. The ease of understanding and readability was established by the researcher, supervision team, and other academics in the Business faculty. A total of 12 people pre-tested the survey. Based on the initial feedback, improvements were made to the questionnaire. These steps were taken to ensure the wordings of the questionnaire are easily understood by the respondents. Appendix 4 shows the questionnaire utilised for this study. Each question has the guidelines on how to respond and an explanation of the actual construct.

5.1.1.10 Section summary

This section clarifies that the present study is adopting a positivistic ontological view with an objectivistic epistemology by presenting various levels of research methodology related decisions. This study adopted the deductive approach and used the quantitative design; hence, hypotheses are drawn to fill the research gap found in existing knowledge. A self-administered questionnaire option was chosen as the instrument of inquiry, with a sample of 300 respondents

deemed to be the minimum sufficient sample size for this study. This section also presented the target population, sample method, procedure and size. It was concluded with ethical considerations and challenges with data collection.

5.2 Post-data collection decisions

Post-data collection decisions present different procedural preparations performed after data collection. These preparations include data screening, treatment of missing data, coding, identifying outliers and establishing the normality of data. This section also provides information regarding respondents' profiles.

5.2.1 Data screening

The data for this study was collected from the medical institutions located across Malaysia. This was done by physically going to the hospitals and handing out questionnaires to medical tourists who had completed their treatment and were about to leave the premises. The completed questionnaires were then converted into Statistical Package for Social Sciences (SPSS) file for cleaning and analysis. Additionally, straight liners (also known as flat liners) were determined and removed from the analysis. This means respondents who answered questions without variation such as choosing only three (for neutral) or seven (for strongly agree) for all or most of the questions (Abel et al. 1998). This suggests that the respondents did not take time to read and respond properly, and/or have not engaged with the questions. In these cases, the response data was removed from the analysis as it is deemed flawed (Allen & Bennett 2014). To ensure that the data collected were as robust as possible, several other steps were taken to clean the data and prepare for data analysis. These steps are explained below.

5.2.1.1 Missing data

Overall, a total of 486 respondents participated in filling out the questionnaire. Upon close examination, it was found that 46 of the respondents did not complete their questionnaires properly. It was not deemed necessary to keep the data with high levels of missing responses as the researcher was fortunate to collect more responses than anticipated. Due to the difficulty of dealing with missing data in SEM, the decision was made to remove these respondents. As a result, the entirety of the questionnaires with a high level of missing responses was removed from further analysis. Hence, after this removal process, 440 useable responses were deemed suitable for further data analysis.

5.2.1.2 Data coding

A total of 67 questions were included in the questionnaire which incorporated all the questions for this study. In order to enable easier data analysis, the data were coded according to the

constructs and sub-constructs each item belongs to. The items were coded accordingly with reverse items also properly coded. All items were also numbered with the initials of their constructs and sub-constructs.

5.2.1.3 Univariate outliers

Outliers are cases with extreme values, unusually high or low, which makes the cases distinctly different from other cases, or scores that fall at outside the distribution range (Hair et al. 2014; Orr, Sackett & Dubois 1991). It is important to screen the datasets for outliers as it might skew the results and might have a disproportionate influence on the result (Field 2009; Orr, Sackett & Dubois 1991). Outliers are univariate or multivariate depending on the number of variables of the research model. A univariate outlier is when a score is noticeably distinct at a single variable level, whereas when the score exists across a set of variables, it is termed multivariate outlier (Hair et al. 2014). Univariate outliers are identified via the histogram, Q-Q plots, steam-leaf diagrams or SPSS outliers report. The multivariate outlier detection with Mahalanobis distance was preferred in this research involving multiple variables (Tabachnick & Fidell 2007; Stevens 2009).

Given the covariance (multidimensional variance) of the distribution, the Mahalanobis principle measures the distance of a case from the centroid (multidimensional mean) of a distribution. Mahalanobis is the distance divided by the degree of freedom (Hair et al. 2014). Although Hair et al. (2014) suggest a distance ranging from 2.5 to 4.0, the Mahalanobis distance differs depending on the research. The distance is relatively dependent on the number of the sample under consideration. However, the choice of cut-off range from Mahalanobis is dependent on the cases and variables. Choosing a far too high value for the Mahalanobis distance leads to bias and wastage in the cut of samples, hence, this research considers 3.5 cut-off marks for 440 cases under review. The calculations lead to the detection of seven outliers and invariably dropping the total cases to 433.

5.2.1.4 Reflective versus Formative indicators

The two types of indicators for measuring latent constructs are reflective and formative observed variables. Anderson and Gerbing (1988) argued that distinguishing both measures allows for proper specification of measurement model which is vital in deriving meaningful structural relationship. Reflective indicators are either correlated or unidimensional and are

ones that reflect the latent variables (Gefen, Straub & Boudreau 2000; Anderson & Gerbing 1988), whereas formative indicators represent different dimensions of latent variables and in most cases, cause or form change in a latent variable (Diamantopoulos & Winklhofer 2001; Chin 1998; Gefen, Straub & Boudreau 2000). Coltman et al. (2008) argued that the nature of formative construct is such that the latent construct is a combination of its indicators and the direction of casualty is from item to the latent construct. Also, internal consistency assessment is less important as formative indicators have no specific magnitude or pattern that characterise the correlations (Diamantopoulos & Winklhofer 2001). Additionally, it is characterised by items that define the construct, meaning the items do not need to share a common theme and are not interchangeable. Thus the conceptual domain of the constructs may change by adding or dropping an item (Gefen, Straub & Boudreau 2000; Coltman et al. 2008; Diamantopoulos & Winklhofer 2001).

The nature of reflective indicators is such that the latent constructs exist independent of the measures used and the direction of casualty is from the latent construct to items (Coltman et al. 2008; Gefen, Straub & Boudreau 2000). Furthermore, reflective indicator is characterised by items manifested by the constructs, meaning the items share a common theme and are interchangeable. Hence, the conceptual domain of the construct will not be affected with adding or dropping an item (Coltman et al. 2008). Moreover, assessment of discriminant and convergent validity is another key feature of a reflective indicator. Inter-correlation of items should be positive and high. Assessment of internal consistency and reliability through Cronbach's alpha, average variance extracted (AVE) and Confirmatory factor analysis (CFA) are important for reflective indicator (Coltman et al. 2008). Hence, the present study will adopt the reflective measure.

5.2.1.5 Normality of data

Normality of data is dependent on the shape of the distribution curve. Normally distributed data form an important role in underlying assumptions for multivariate analysis (Field 2009; Hair et al. 2014). The descriptive techniques used to determine the normality of data are skewness and kurtosis. The shape of the distribution is measured by skewness, kurtosis, and standard errors. Skewness can either be negatively skewed (right) or positively skewed (left), while kurtosis can either be flat peaked (negative) distribution or high peaked (positive) distribution (Field 2009; Hair et al. 2014). Furthermore, a negatively skewed distribution of

data shows fewer small values, whereas fewer large values show when the skewed distribution is positive (Field 2009; Hair et al. 2014).

The present study checked the normality of data through the test of skewness and kurtosis. This involved the use of histograms as they show a clear indication of the distribution of any data. According to Hair et al. (2014), both skewness and kurtosis should not exceed the absolute value of one. The initial examination of descriptive showed that all the items except one, generally fell within the acceptable limit of -1 to +1 as they show some level of skewness. A detailed descriptive statistic for each construct and sub-construct, including the skewness, kurtosis, mode, median, and mean of each item in each measurement scale, are produced below.

The following table (Table 5.1) shows the descriptive statistics including skewness, kurtosis, mean, mode, and median of each item in the measurement scale of a cognitive image of Malaysia as a medical tourism destination.

Table 5.1: Cognitive image of Malaysia as a medical tourism destination

<i>Coded items</i>	<i>Mean</i>	<i>Median</i>	<i>Mode</i>	<i>Skewness</i>	<i>Std. error of skewness</i>	<i>Kurtosis</i>	<i>Std. error of Kurtosis</i>
Cognitive1	6.0139	6	6	-.277	.117	-.576	.234
Cognitive2	5.7044	6	6	-.204	.117	-.494	.234
Cognitive3	5.7575	6	6	-.203	.117	.036	.234
Cognitive4	5.8383	6	6	-.182	.117	-.709	.234
Cognitive5	5.4942	6	6	-.160	.117	-.109	.234
Cognitive6	5.4319	5	5	-.229	.117	.111	.234
Cognitive7	5.7691	6	6	-.055	.117	-.704	.234
Cognitive8	5.6374	6	6	-.094	.117	-.700	.234
Cognitive9	5.7090	6	6	-.185	.117	-.754	.234
Cognitive10	5.6836	6	6	-.312	.117	-.662	.234
Cognitive11	5.5612	6	5	-.144	.117	-.480	.234
Cognitive12	5.8637	6	6	-.571	.117	.625	.234
Cognitive13	5.7991	6	6	-.059	.117	-.936	.234
Cognitive14	5.6767	6	6	-.298	.117	-.347	.234
Cognitive15	5.7344	6	6	-.364	.117	-.124	.234
Cognitive16	5.7921	6	6	-.394	.117	.118	.234
Cognitive17	5.4734	6	6	-.368	.117	.236	.234
Cognitive18	5.7067	6	5	-.001	.117	-.672	.234
Cognitive19	5.5266	6	6	-.158	.117	-.632	.234
Cognitive20	5.4619	6	6	-.249	.117	-.246	.234
Cognitive21	5.5150	5	5	.039	.117	-.662	.234

The following table (Table 5.2) shows the descriptive statistics including skewness, kurtosis, mean, mode, and median of each item in the measurement scale of an affective image of Malaysia as a medical tourism destination.

Table 5.2: Affective image of Malaysia as a medical tourism destination

<i>Coded items</i>	<i>Mean</i>	<i>Median</i>	<i>Mode</i>	<i>Skewness</i>	<i>Std. error of skewness</i>	<i>Kurtosis</i>	<i>Std. error of Kurtosis</i>
Affective1	5.9723	6	6	-.691	.117	.150	.234
Affective2	5.7783	6	6	-.547	.117	.218	.234
Affective3	5.8037	6	6	-.304	.117	-.593	.234
Affective4	5.7875	6	6	-.077	.117	-.615	.234
Affective5	5.6674	6	6	-.239	.117	-.021	.234
Affective6	5.7691	6	6	-.476	.117	-.079	.234
Affective7	5.7159	6	6	-.354	.117	-.788	.234

The following table (Table 5.3) shows the descriptive statistics including skewness, kurtosis, mean, mode, and median of each item in the measurement scale of a conative image of Malaysia as a medical tourism destination.

Table 5.3: Conative image of Malaysia as a medical tourism destination

<i>Coded items</i>	<i>Mean</i>	<i>Median</i>	<i>Mode</i>	<i>Skewness</i>	<i>Std. error of skewness</i>	<i>Kurtosis</i>	<i>Std. error of Kurtosis</i>
Conative1	5.4157	6	6	-.438	.117	-.036	.234
Conative2	5.4965	6	6	-.085	.117	-.569	.234
Conative3	5.1109	5	5	-.201	.117	-.273	.234
Conative4	5.0670	5	5	-.118	.117	-.455	.234
Conative5	4.9908	5	5	-.002	.117	-.569	.234
Conative6	5.1339	5	5	-.321	.117	.796	.234
Conative7	5.0924	5	5	.230	.117	-.491	.234
Conative8	5.2102	5	5	.219	.117	-.379	.234

The following table (Table 5.4) shows the descriptive statistics including skewness, kurtosis, mean, mode, and median of each item in the measurement scale of destination brand awareness.

Table 5.4: Destination brand awareness

<i>Coded items</i>	<i>Mean</i>	<i>Median</i>	<i>Mode</i>	<i>Skewness</i>	<i>Std. error of skewness</i>	<i>Kurtosis</i>	<i>Std. error of Kurtosis</i>
DBA1	5.4434	6	6	-.087	.117	-.889	.234
DBA2	5.4203	5	5	.084	.117	-.669	.234
DBA3	5.3464	5	5	.260	.117	-.803	.234
DBA4	5.2841	5	5	.124	.117	-.741	.234
DBA5	5.2979	5	5	.018	.117	-.426	.234

The following table (Table 5.5) shows the descriptive statistics including skewness, kurtosis, mean, mode, and median of each item in the measurement scale of destination brand quality.

Table 5.5: Destination brand quality

<i>Coded items</i>	<i>Mean</i>	<i>Median</i>	<i>Mode</i>	<i>Skewness</i>	<i>Std. error of skewness</i>	<i>Kurtosis</i>	<i>Std. error of Kurtosis</i>
DBQ1	5.8476	6	6	-.487	.117	1.327	.234
DBQ2	5.7829	6	6	-.331	.117	.016	.234
DBQ3	5.5289	6	6	-.112	.117	-.206	.234
DBQ4	5.6998	6	6	-.125	.117	.360	.234
DBQ5	5.8476	6	6	-.519	.117	.430	.234

The following table (Table 5.6) shows the descriptive statistics including skewness, kurtosis, mean, mode, and median of each item in the measurement scale of destination brand satisfaction.

Table 5.6: Destination brand satisfaction

<i>Coded items</i>	<i>Mean</i>	<i>Median</i>	<i>Mode</i>	<i>Skewness</i>	<i>Std. error of skewness</i>	<i>Kurtosis</i>	<i>Std. error of Kurtosis</i>
DBS1	5.8152	6	6	-.217	.117	-.483	.234
DBS2	5.7575	6	6	-.421	.117	.112	.234
DBS3	5.7806	6	6	-.082	.117	-.538	.234
DBS4	5.7783	6	6	-.643	.117	.901	.234
DBS5	5.8684	6	6	-.583	.117	.702	.234

The following table (Table 5.7) shows the descriptive statistics including skewness, kurtosis, mean, mode, and median of each item in the measurement scale of destination brand loyalty.

Table 5.7: Destination brand loyalty

<i>Coded items</i>	<i>Mean</i>	<i>Median</i>	<i>Mode</i>	<i>Skewness</i>	<i>Std. error of skewness</i>	<i>Kurtosis</i>	<i>Std. error of Kurtosis</i>
DBL1	6.2702	6	7	-.610	.124	-.391	.247
DBL2	6.1755	6	7	-.752	.124	-.120	.247
DBL3	6.0831	6	6	-.541	.124	-.350	.247
DBL4	5.8961	6	6	-.654	.124	-.176	.247
DBL5	6.0393	6	7	-.722	.124	-.260	.247

5.2.2 Respondent profiles

The questionnaire included several demographic questions which provided further information about the respondents. These questions include gender, age, level of education, marital status, and country-of-origin. Other questions asked include whether it's their first time to visit Malaysia either as a tourist or a medical tourist, how they heard about medical tourism in Malaysia, the purpose of visit, and type of treatment sought. Additionally, the respondents were asked to rank five factors based on their importance during their visit as medical tourists. These factors include the cost of treatment, reputation of physicians, quality of medical services, waiting time, and accreditation of medical facilities. The following tables (Tables 5.8 – 5.17) provide the detailed characteristics of the respondents' profile. The table (Table 5.8) below showed that the age group with the highest proportion was 42 – 51 (36 per cent) followed by 52 – 61 (26 per cent).

Table 5.8: Age group of respondents

<i>Age group (years)</i>	<i>Frequency (n=433)</i>	<i>Percentage</i>
• 18 – 23	1	.2
• 24 – 35	42	9.7
• 36 – 41	88	20.3
• 42 – 51	156	36.0
• 52 – 61	112	25.9
• 62 and above	34	7.9

A wide variety of ages was included in the sample with the youngest being 18 and the oldest above 62 years of age. Table 5.9 shows that there were slightly more female (53 per cent)

respondents than male (47 per cent) respondents. This could mean that more female medical tourists visit Malaysia for treatment.

Table 5.9: Gender of respondents

<i>Gender</i>	<i>Frequency (n=433)</i>	<i>Percentage</i>
Male	202	46.7
Female	231	53.3

Approximately, 52 per cent of the respondents had completed their high school and college education, whereas only 5% completed vocational education. The data also showed that about 43 per cent of the respondents completed their undergraduate or postgraduate degrees. The break-down of respondents' level of education is provided in Table 5.10 below

Table 5.10: Education level of the respondents

<i>Level of education</i>	<i>Frequency (n=433)</i>	<i>Percentage</i>
• Some high school	106	24.5
• College	119	27.5
• Vocational education	23	5.3
• University degree	164	37.9
• Post-graduate degree	21	4.8

The data showed that majority of the respondents were married (73 per cent). Approximately, 10 per cent are not married (either single or in a relationship), while the rest were either separated (7%), widowed (5%), or divorced (5%). The details of respondents' marital status are provided in Table 5.11 below.

Table 5.11: Marital status of respondents

<i>Marital status</i>	<i>Frequency (n=433)</i>	<i>Percentage</i>
• Single (never married)	30	6.9
• In-a-relationship	12	2.8
• Married	314	72.5
• Separated	31	7.2
• Widowed	23	5.3
• Divorced	23	5.3

The majority of respondents were from Indonesia (147), with the second-largest group being from China (54). The remaining came from many countries, for example, Brunei (34),

Philippines (24), Singapore (28), Vietnam (24), and the rest of the world (119). The following table (Table 5.12) gives details about the geographic areas from which respondents originated.

Table 5.12: Nationality of respondents

<i>Nationality</i>	<i>Frequency (n=433)</i>	<i>Percentage</i>
Indonesia	147	33.9
China	54	12.5
Brunei	34	7.9
Singapore	28	6.5
Philippines	24	5.5
Vietnam	24	5.5
India	14	3.2
Thailand	14	3.2
South Korea	10	2.3
Laos	10	2.3
Japan	9	2.1
Cambodia	9	2.1
Myanmar	7	1.6
Taiwan	7	1.6
Hong Kong	4	0.9
Oman	4	0.9
USA	4	0.9
Australia	3	0.7
Bangladesh	3	0.7
Timor-Leste	3	0.7
Nigeria	2	0.5
Afghanistan	1	0.2
Bahrain	1	0.2
France	1	0.2
Germany	1	0.2
Hungary	1	0.2
Iran	1	0.2
Italy	1	0.2
Kazakhstan	1	0.2
Kenya	1	0.2
Maldives	1	0.2
Mongolia	1	0.2
Pakistan	1	0.2
Papua New Guinea	1	0.2
Sri Lanka	1	0.2
Syria	1	0.2
Turkey	1	0.2

The survey showed that a large percentage (72 per cent) of respondents have visited Malaysia in the past as tourists, while about 28 per cent are first-time visitors to Malaysia as tourists. The statistics are presented in the table (Table 5.13) below.

Table 5.13: First-time visit as a tourist in Malaysia

<i>First-time visit as a tourist</i>	<i>Frequency (n=433)</i>	<i>Percentage</i>
Yes	120	27.7
No	313	72.3

The sample showed that there were more respondents (236 respondents) who were visiting Malaysia for medical tourism, whereas 197 respondents representing about 45 per cent of the sample were first-time medical tourists. The data is presented in the table (Table 5.14) below

Table 5.14: First-time visit as a medical tourist in Malaysia

<i>First-time visit as a medical tourist</i>	<i>Frequency (n=433)</i>	<i>Percentage</i>
Yes	197	45.5
No	236	54.5

Approximately, 39 per cent of the respondents heard about medical tourism in Malaysia from friends or relatives, 31 per cent were informed by online search and 25 per cent from travel agents. The remaining 5% heard from television advertisements, tourism magazines, or other means. More details of the itemised analysis are provided in Table 5.15 below

Table 5.15: How respondents heard about medical tourism in Malaysia

<i>How they heard about medical tourism in Malaysia</i>	<i>Frequency (n=433)</i>	<i>Percentage</i>
• Friends / Relatives	170	39.3
• Tourism magazines	22	5.1
• Agents	106	24.5
• Online search	132	30.5
• Television advertisement	1	.3
• Others	2	.5

The majority of respondents' purpose of the visit was for both medical service and recreation (83 per cent), while about 17 per cent of respondents came only to receive medical services. The following table (Table 5.16) gives details about the respondents' purpose of visit.

Table 5.16: Respondents' purpose of visit

<i>Purpose of visit</i>	<i>Frequency (n=433)</i>	<i>Percentage</i>
<ul style="list-style-type: none"> • Medical service and recreation 	358	82.7
<ul style="list-style-type: none"> • Medical service only 	75	17.3

The question on the type of treatment sought showed that majority of the respondents came for major medical treatment (81 per cent) such as surgical procedures, whereas about 19 per cent of respondents came for minor medical treatments such as recuperation, check-up, etc. The following table (Table 5.17) gives details about the respondents' purpose of visit.

Table 5.17: Type of treatment sort by respondents

<i>Type of treatment</i>	<i>Frequency (n=433)</i>	<i>Percentage</i>
<ul style="list-style-type: none"> • Major medical treatment (Surgical procedures) 	351	81.1
<ul style="list-style-type: none"> • Minor medical treatment (recuperation, check-up, etc) 	82	18.9

5.3 Chapter summary

This chapter was divided into two sections. The first section presented the pre-data collection decisions essential for the present research. These decisions include a rigorous assessment of all elements of research design. This study adopted a positivistic ontology with objectivistic epistemology. To address the research questions, hypotheses are generated for testing in the current research. Furthermore, a deductive approach is taken, and a self-administered questionnaire chosen as an instrument of inquiry to test these hypotheses. The respondents were recruited through JCI and MHTC accredited medical facilities in Malaysia and a sample of 433 valid responses was received. The researcher received full ethics approval before embarking on data collection from the Swinburne University of Technology's human ethics committee.

The second section presented all the post-data collection processes for this study. These included data cleaning and coding, dealing with missing data, identifying outliers, and ensuring normality of the distribution. This section also provided an overview of the respondents' profile. The profile demonstrated that the sample was a diverse group of foreigners, belonging

to different age groups, different levels of education, gender and marital group, all visiting Malaysia for a myriad of medical services as well as recreation.

The next chapter presents the procedure adopted for purifying the scales used in the present study.

Chapter 6: Preliminary findings

This chapter provides details on the process undertaken for purifying the measurement scale used in this study. It is necessary to purify the data to ensure the robustness of the scale and statistical rigour in capturing the various latent variables used for this study.

This chapter is divided into six sections.

- Section one presents a detailed procedure for scale purification, with detail on the process and procedures for confirmatory factor analysis (CFA).
- Section two provides the details of the purification process on the dependent variables. These scales capture destination brand satisfaction and destination brand loyalty.
- Section three explains how the independent variables have been purified. These scales capture the cognitive, affective, and conative image as part of destination brand image, destination brand awareness, destination brand quality as other independent variables.
- Section four presents a detailed confirmatory factor analysis for the present study.
- Section five presents the tests of invariance for demographic factors included in this study. This test will help to determine and identify whether medical tourists of different groups have fundamental differences in their perception of Malaysia as a medical tourism destination. These factors are age, level of education, gender, marital status, the purpose of visit, and the type of treatment.
- Section six concludes with the presentation of the factors that motivate medical tourists to choose a destination for medical tourism. The section presents the most important factors that medical tourists consider while making their choice, as well as the least important factors.

6.1 Scale evaluation

The measurement scales used in the present study have been assessed by conducting reliability and validity tests. These tests are used to determine the extent to which the measurement scales accurately represent the concept. Reliability and validity tests were conducted on the data to determine the psychometric properties of the measurement scales (Tabachnick & Fidell 2013). Further explanation of what these tests are, and how they are conducted is presented below.

6.1.1 Reliability

Neuman (2014) refers to reliability as the consistency and dependability of a variable, while Carmines & Zeller (1979) defined reliability as the extent to which a test or an experiment yields the same results on repeated trials. In other words, under identical or similar situations, the indicator yields the same result when repeated. The reliability test is done to reduce the possibility of measurement error and to test whether an instrument can be interpreted consistently across various situations (Field 2009; Byrne 2016). Two types of such measurement errors include a Type I and Type II error. Type I error is termed alpha level while Type II error is termed beta-level (Field 2009; Hair et al. 2014). In testing hypotheses with 95 per cent confidence, a Type I error usually occurs when a correlation or significant difference is believed to exist, when in fact it does not exist. However, Type II error occurs when it is believed that there is no correlation or significance when in reality it does exist (Field 2009; Hair et al. 2014). Hence, both types of error are problematic and cause problems in analysis.

6.1.1.1 Cronbach's Alpha

The coefficient alpha popularly known as the Cronbach's (Cronbach 1951) coefficient alpha is the most recognised and widely used measure of reliability for assessing a measurement scale with multiple items (Netemeyer, Bearden & Sharma 2003; DeVellis 2003). Cronbach's alpha measures the correlation of the research instrument measured by scale items. Churchill (1979) referred to alpha as the basic statistic for determining the reliability of a measure. Although Cronbach's alpha is widely used and reliable, some studies have criticised its use. Cronbach's alpha is dependent on both the number of items in the scale and the magnitude of correlations among items is a problem as it may suggest a high level of item redundancy (Streiner, Norman & Cairney 2015). Ten Berge and Socan (2004) argued that Cronbach's alpha does not represent a measure of internal consistency and unidimensionality. Sijtsma (2009) found the greater lower bounds (GLB) to be a more accurate measure of reliability which has not been used because of its lack of popularity. However, GLB is prone to sampling bias and as a result, this study will use Cronbach's alpha for reliability testing. Even though both measures are problematic, the present study will utilise Cronbach's alpha based on the reasons mentioned above.

The derived values from the measurement while using alpha express how strong or weak the measured constructs are. For this measurement, high values express a higher measure, whereas

low value expresses a low measure of the construct (Hair et al. 2014). Although a various range of acceptable scores has been proposed by statisticians, DeVellis (1991) proposed a Cronbach's alpha score of 0.65 as minimum acceptable score and 0.90 as very good. Furthermore, the study recommends shortening of the scale if the score exceeds 0.90 due to the positive relationship between Cronbach's alpha and the number of items in the scale (DeVellis 1991). Hence the present study calculated Cronbach's alpha and item-scale of each construct separately to ensure acceptable values are determined.

6.1.1.2 Internal consistency

The internal consistency assesses the degree of interrelationship between the items. According to DeVellis (2003), the high inter-item correlation suggests that the items are interrelated and are measuring the same thing. Hence, items in a scale to report high internal consistency. For the present study, reliability assessment was employed through Cronbach's alpha and CFA to assess and maintain internal consistency. As a result, items with lowest item-to-item correlation (values < 0.50), items with less than 0.30 inter-item correlation, or the lowest squared multiple correlations were removed to improve the internal validity of scales.

6.1.2 Validity

Validity is the extent to which any variable measures what it is intended to measure (Carmines & Zeller 1979). Hair et al. (2017) referred to validity as a measure of accuracy in measurement (p.168). For a measure to be valid, the differences in observed scores have to reflect the true differences of the characteristic measured and nothing more (Churchill 1979; Saunders, Lewis & Thornhill 2016). There are many ways to judge the validity of a measure. These include; how they correlate with other measures (construct validity), how the scale was constructed (content validity), and the expected performance of the scale (criterion-related validity) (Churchill 1979; Saunders, Lewis & Thornhill 2016). These types of validity are further explained below.

6.1.2.1 Content validity

Content validity is sometimes referred to as face validity. This type of validity depends on the extent to which the measurement scale reflects a specific domain of content (Carmines & Zeller 1979). Although content validity alone is not a sufficient measure of validity because of its subjective nature, it helps ensure that common-sense interpretation of scales scores is done

(Malhotra 2010). Hence, the present study examined the scale items used to ensure that it adequately represents all constructs.

6.1.2.2 Criterion-related validity

Criterion-related validity is sometimes referred to as predictive validity. This type of validity examines the expected behaviour of a scale concerning other variables selected as meaningful criteria (Carmines & Zeller 1979; Malhotra 2010; Saunders, Lewis & Thornhill 2016). This validity can take two forms: concurrent and predictive validity. The concurrent validity concerns a present criterion, expresses and is assessed by correlating a measure and the criterion at the same point. Predictive validity is concerned with the future and is assessed by correlating with the relevant measure (Carmines & Zeller 1979; Malhotra 2010). In relation to the present study, this means that using the data collected through questions within the questionnaire to predict medical tourists post-purchase behaviour, the test of criterion-related validity will be the extent to which the responses actually predict medical tourists' post-purchase behaviour.

6.1.2.3 Construct validity

The construct validity measure is central to the measurement of theoretical concepts. This type of validity is concerned with the extent to which a set of measured items is consistent with the theoretical assumption it intends to measure (Carmines & Zeller 1979; Hair et al. 2014). This validity type ensures that the item measures taken from the sample reflect the actual true score of the population (Hair et al. 2014). To establish construct validity, Churchill (1979) suggested that it is important to determine the extent to which the measure correlates with other measures designed to measure the same constructs and if the measure behaves as expected. Hence, it shows the accuracy of the measurement. This validity can be determined by checking the convergent, discriminant, and nomological validity (Bearden, Netemeyer & Haws 2011; Hair et al. 2014). These construct validity types are detailed below.

6.1.2.3.1 Convergent validity

Convergent validity is concerned with the extent items in similar construct positively correlate with each other (Saunders, Lewis & Thornhill 2016; Hair et al. 2017; Bearden, Netemeyer & Haws 2011; Loehlin 2004). This type of construct validity occurs when multiple items converge with one another or operate in a similar way (Neuman 2014). In Confirmatory Factor

Analysis (CFA), convergent validity is vital in determining whether the items of a particular variable share a proportion of variance. The support for this validity is shown in the present study when items loaded significantly on their respective variables in CFA. The convergent validity is denoted by values significantly different from zero, while the statistical significance is determined by the values of critical ratio and p-values (<0.05) that is vital to assessing factor validity (Hair et al. 2014).

6.1.2.3.2 Discriminant validity

Discriminant validity is the extent to which the measure is both a reflection of other variables and at the same time, novel (Churchill 1979). This means that although the measures of a particular construct converge together, they are also negatively associated with an opposing construct (Neuman 2014). This type of construct validity captures phenomena that other measures do not and provides evidence of the uniqueness of the construct (Hair et al. 2014). Discriminant validity was demonstrated in the present study by showing that the Average Variance Extracted (AVE) by the latent construct is greater than the squared correlation between two latent measures. Therefore, internal consistency can be determined through Construct Reliability (CR) and AVE. The recommended threshold for AVE and CR are values greater than 0.50, and 0.60 respectively. The calculations for these validity and reliability measures are produced for each factor in relevant sections and the formulae (Hair et al. 2014) used are illustrated following.

Construct reliability =

$$\frac{(\sum \text{standardised loadings})^2}{(\sum \text{standardised loadings})^2 + \sum (\text{indicator measurement errors})}$$

The average variance extracted =

$$\frac{\sum (\text{standardised loadings})^2}{\text{Number of items}}$$

6.1.2.3.3 Nomological validity

Nomological validity assesses the extent to which constructs that are theoretically related are significant as predicted (Bearden, Netemeyer & Haws 2011). This type of construct validity helps researchers to determine whether the scale demonstrates the predicted relationship shown to exist based on prior research or theory (Hair et al. 2014). For example, it is hypothesised that the medical tourists' who are satisfied with medical services received in Malaysia, will likely recommend Malaysia to others asked.

6.1.3 Scale Dimensionality

The dimensionality of a scale is employed to ensure that the operationalised scale is unidimensional as it involved creating a summated scale. This means that the items represent a single construct and are strongly associated with each other (Hair et al. 2014; Bearden, Netemeyer & Haws 2011). In assessing the dimensionality of a set of items, factor analysis plays a pivotal role by determining the number of factors and the loadings of each construct on the factor (Hair et al. 2014). Factor analysis is one of the oldest and most widely used statistical techniques for describing and examining the correlations among latent variables and identifying a cluster of highly interrelated variables that reflect underlying themes within a data (Kline 2016; Leedy & Ormrod 2016). Two broad categories of factor analysis exist: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA).

Exploratory factor analysis deals with theory building as the researcher is concerned with exploring the underlying dimensions that could have caused a correlation between observed constructs (Gaur & Gaur 2009). EFA is considered to be a data reduction technique to reduce a large number of items to a smaller meaningful set and factors subjectively named based on which share common variance (Schumacker & Lomax 2016). Additionally, the indicators with strong inter-correlation in EFA are grouped together under one construct, as such, all indicators are assumed to be related to all constructs (Kline 2016). As each construct is relatively independent of other constructs, it is recommended that EFA be conducted on newly proposed models.

The measurement items for the present study were adopted from previous studies and have been well established as seen in the chapter on the operationalisation of variables. Thus, EFA was not performed for this study as the scales are pre-existing and have been validated in previous studies. However, further validation of the scales will be performed through CFA to ensure the measurement scale is suitability for the current study and test that it fits the data collected from medical tourists visiting Malaysia.

6.1.4 Confirmatory factor analysis

Confirmatory factor analysis (CFA) mostly deals with theory testing as it helps the researcher test whether the correlation among observed constructs is consistent with the hypothesised factor structure (Gaur & Gaur 2009; Byrne 2016). CFA is used to simultaneously test multiple hypotheses and confirm the structure of a developed scale which collectively constitute a measurement model (Hoyle 2004; Stevens 2009). CFA is carried out by Structural Equation Modelling (SEM) to derive construct validity and the best-fit indices. This is performed on the premise of a theoretical framework to derive a measurement model (Hair et al. 2014; Tabachnick & Fidell 2007). While EFA is statistically driven, CFA is based on theory. Hence, the items directly related to the construct is been calculated and tested by CFA (Schumacker & Lomax 2016; Kline 2016).

The most widely adopted estimation method is Maximum Likelihood (ML), and with the sample size obtained for the present study reasonably large ($n=433$), using this method is possible (Eliason 2004; Hair et al. 2014). This estimation is used to confirm latent structures by testing one-factor measurement models for each construct. It displays robustness which invariably accommodates the present violations of multivariate normality assumptions (Olsson et al. 2000; Iacobucci 2010). Criticism for the use of ML has noted that if the normality of multivariate data is violated, the estimation method is susceptible to bias in standard errors (Kolenikov & Yuan 2009; Wang & Drton 2017). However, researchers found that ML estimates error variances and factor loadings freely, and generally performs better than weighted least squares, and generalized least squares (Hu & Bentler 1998; Ding, Velicer & Harlow 1995; Olsson et al. 2000; Iacobucci 2010).

The error terms associated with observed variables are depicted by “e” in a circle and represents unobserved variables (Byrne 2016). Researchers have two different thoughts on the treatment

of these error terms. The first thought does not allow error terms to be co-varied and this recommendation is considered strict. The second recommends error terms to be co-varied if they belong to the same construct. The rationale for this allowance is that the items on the same factor are bound to correlate as they capture the same latent construct. Hence, some researchers have adopted this second thought as a way to improve the model fit (Byrne 1998, 2001, 2010; Kline 2011; Schumacker & Lomax 2010). The first thought was adopted in the present study as the researcher did not co-vary the error terms (Blunch 2013; Terry, Lane & Fogarty 2003).

The present study conducted CFA on all the variables to check for unidimensionality of the variables. To ensure the data fit the measurement model, widely used model fit indices such as CFI, GFI, RMSEA, RMR and NFI were used. If the proposed model does not fit, the guidelines for appropriate modifications include a check of the modification indices, path estimates, and standardized residual (Hair et al. 2014; Malhotra 2010). The path estimates or factors loadings are significant with estimates ideally at 0.7 and above or minimum estimate greater than 0.5. Path estimates are considered non-significant if the estimate is below 0.5 and in that case should be dropped (Hair et al. 2014; Malhotra 2010). Residuals can either be negative or positive and refer to the difference between the observed covariance terms and the estimated covariance term (Hair et al. 2014; Malhotra 2010). The items are considered problematic if the standardized residual exceeds 4.0. Although the error might be attributed to sampling error, if the residuals show a consistent pattern of values above 4.0, the item might be dropped (Hair et al. 2014). Lastly, modification indices greater than 4.0 indicate that the fit might be improved by freely estimating the path (Malhotra 2010). Hair et al. (2014) recommend that changes should not be made based solely on modification indices but acknowledge that it provides information on potential cross-loadings.

The above guidelines were followed before dropping any items from further analysis. Additionally, composite constructs were developed and construct reliability was checked to ensure there is no evidence of cross-loading (Hair et al. 2014; Byrne 2016). AVE was further calculated to demonstrate construct validity. This process was repeated for all items in each scale. A representation diagram of the process is shown in subsequent sections.

6.1.4.1 Model fit indices

The ability to explain or describe how well a specific factor model represents the data is an essential feature of CFA. Model fit indices determine the extent to which sample variance-covariance data fit the structural equation model (Schumacker & Lomax 2016). Numerous fit indices have been developed to assess and assist in interpreting the unidimensionality of the factors and overall model fit. These indices can be used to determine whether the structural model and hypothesized measurement fit the actual model (Jöreskog 1993). Hence, the primary focus is to establish a correct model fit as this will determine the accuracy of the structural model (Anderson & Gerbing 1982). The categories of model fit indices as proposed by past literature include; absolute, incremental, parsimony, and non-centrality fit indices (Hu & Bentler 1995; Hair et al. 2014; Reisinger & Mavondo 2007). The most commonly used ones are explained below.

6.1.4.1.1 Absolute fit indices

Absolute fit indices provide a basic measure of how well a priori model fits or explains data (Kline 2016). These indices indicate the extent to which the model as a whole including measurement and path provide an acceptable model fit without any adjustments (Reisinger & Mavondo 2007). These indices include; Goodness-of-fit index (GFI), Adjusted goodness-of-fit index (AGFI), Root mean square residual (RMR), Standardised root mean square residual (SRMR), CMIN, and CMIN/df (Hu & Bentler 1995; Reisinger & Mavondo 2007). Apart from comparison measurement between the original and alternate model, these indices provide a measure for the path models and all other models.

The Chi-square is one of the most important absolute fit index and the only statistically based SEM measure of fit (Hair et al. 2014). It provides a Goodness-of-Fit (GOF) comparison between the estimated and observed covariance matrices (Fornell & Larcker 1981). The acceptable model should have a p-value greater than 0.05. Although Chi-square is an important measure, it is dependent on sample size and cannot be singularly used for this assessment (Bagozzi, Yi & Phillips 1991). Like any other statistic measure, it is associated with some limitations. Firstly, the measure is affected by sample size. In cases of large sample size, it produces a larger value which can be inflated (Maruyama 1998). Additionally, with a large number of variables, it produces larger values (Reisinger & Mavondo 2007; Bentler & Bonett

1980). Lastly, it is usually considered inaccurate when the assumptions of multivariate normality are violated (Baumgartner & Homburg 1996).

CMIN represents a ratio of Chi-Square value to the degree of freedom and it is a widely used index for assessing model fit. The acceptable limit for this index range is from 2:1 to 5:1 and it is also susceptible to sample size (Reisinger & Mavondo 2007).

The Goodness-of-Fit Index (GFI) is another fit statistic that is sensitive to sample size and is widely used to measure model fit (Hair et al. 2014). It assesses the relative amount of variance and covariance explained by the model. The values typically range from 0 to 1, as higher values indicate a better fit (Maruyama 1998; Reisinger & Mavondo 2007).

6.1.4.1.2 Incremental fit indices

Incremental fit indices also called comparative or relative fit indices measures how well the estimated model fits over that of a baseline model (Kline 2016; Hair et al. 2014). These indices assess improvements in fit and the acceptable fit value vary between 0 to 1. Incremental fit indices include; Normed Fit Index (NFI), Comparative Fit Index (CFI), Incremental Fit Index (IFI), and Tucker Lewis Index (TLI) (Hair et al. 2014; Hu & Bentler 1995; Maruyama 1998). Although Reisinger & Mavondo (2007) suggested an acceptable fit of 0.95, there is little agreement as to the cut off value of an acceptable fit. While most of the incremental fit indices are normed (can vary between 0 and 1), some are non-normed (can have negative or above 1 values).

Another widely used fit measure is the Root Mean Square Error of Approximation (RMSEA). This index is relatively insensitive to sample size and does not require baseline model specifications (Loehlin 2004). It is based on the non-centrality of Chi-square distribution (Blunch 2013). Different studies have given a range of acceptable minimum for this index. Hu & Bentler (1995) suggest <0.06 as a good fit, whereas Reisinger & Mavondo (2007) suggest <0.05 represent a good fit and <0.08 as an acceptable fit.

Different researchers have their preferred fit indices even though disagreements as to which or how many fit indices should be used to demonstrate a good model fit still exist (Kline 2011; Byrne 2016; Reisinger & Mavondo 2007). Hence Reisinger & Mavondo (2007) noted that a

good model fit only imply plausible and not that the model is correct. Table 6.1 below shows the model fit indices used in this study and their acceptance criteria.

Table 6.1: Suggested goodness-of-fit statistics and acceptable cut-off criteria

<i>Goodness-of-Fit Statistic</i>	<i>Type</i>	<i>Cut-off Criteria</i>	<i>Considerations</i>
Chi-square	Model fit – absolute. Test of the null hypothesis that the estimated variance-covariance matrix deviates from the sample variance-covariance matrix only because of sampling error	Probability level > ($p \geq 0.05$)	Greatly influenced by the sample size (the larger the sample, the more likely the p-value will indicate a significant difference between the model and the data).
Goodness-of-fit (GFI)	Absolute fit. Non-statistical measure representing a comparison of the squared residuals from prediction with the actual data not adjusted for the degrees of freedom	Value close to, or > 0.95	0 = no fit, to 1 = perfect fit. Values of 0.90 – 0.95 may also indicate a satisfactory fit.
Adjusted Goodness-of-fit (AGFI)	Absolute fit; (incremental) Non-statistical measure representing a comparison of the squared residuals from prediction with the actual data adjusted for the degrees of freedom	Value close to, or > 0.95	0 = no fit, to 1 = perfect fit. Values of 0.90 – 0.95 may also indicate a satisfactory fit. This index is independent of sample size and relatively robust against departures from normality.
Normed Chi-square (Chi-square / df)	Absolute fit and model parsimony. As the chi-square statistic is only meaningful when taking into account the degrees of freedom, the chi-square value is divided by the number of degrees of freedom	A ratio between 1 and 2	A ratio close to one reflects a good fit. Values less than one indicate overfit, too many parameters.

<i>Goodness-of-Fit Statistic</i>	<i>Type</i>	<i>Cut-off Criteria</i>	<i>Considerations</i>
Root Mean Square Residual (RMR)	Absolute fit; A non-statistical measure representing the square root of the mean of the squared standardised residuals	Value < 0.05	Large values for RMR when all other fit statistics suggest a good fit may indicate outliers in the data.
Tucker-Lewis Index (TLI)	Incremental fit: Non-statistical measure representing a comparative index between the proposed and null models adjusted for the degrees of freedom	Value close to, or > 0.95	Values of 0.90 – 0.95 may also indicate a satisfactory fit. This statistic tends to over reject true-population models at small sample size, and thus is less preferable when the sample size is small. Further, it seems to decline as more observed variables are added to a model.

Normed Fit Index (NFI)	Incremental fit: Non-statistical measure representing a comparative index between the proposed and null models not adjusted for the degrees of freedom	Value close to, or > 0.95	0 = no fit, to 1 = perfect fit. It seems to decline as more observed variables are added to a model.
Root Mean Square Error of Approximation (RMSEA)	Absolute fit: A non-statistical measure representing how well the fitted model approximates the population variance-covariance matrix per degree of freedom	Value < 0.05	Values up to 0.08 are reasonable. This statistic tends to over reject true-population models at small sample size, and thus is less preferable when the sample size is small. Further, it seems to improve as more observed variables are added to a model.
Comparative Fit Index (CFI)	Incremental fit: Non-statistical measure representing a comparative index between the proposed and null models adjusted for the degrees of freedom	Value close to, or > 0.95	0 = no fit, to 1 = perfect fit.

Table 6.2: Suggested goodness-of-fit statistics and acceptable cut-off criteria for $N > 250$, and $12 < m < 30$, where m = number of observed variables

<i>Goodness-of-Fit Statistic</i>	<i>Cut-off Criteria</i>
Chi-square	Significant p values can be expected
CLI or TFI	Above 0.92
RNI	Above 0.92 but do not use with $N > 1,000$
SRMR	0.08 or less (with CFI above 0.92)
RMSEA	Values < 0.07 with CFI of 0.92 or higher

Adopted from (Hair et al. 2014; Kline 2016; Schumacker & Lomax 2010)

6.2 Purifying the dependent variables

The dependent variables in the present study are destination brand satisfaction (DBS) and destination brand loyalty (DBL). The selected measurement scales for each of these dimensions are well established and adopted from pre-existing studies. Hence, there was no need to validate them through EFA. However, to ensure the scales retain its suitability with the current sample size, further validation is done through CFA. The purification procedure for these constructs includes conducting CFA, a check of model fit indices to ensure the data collected is suitable for the study, construction of composite construct and assessment of validity and reliability through AVE and CR methods.

6.2.1 CFA on dependent variables

The first factor assessed is the five-item measuring destination brand satisfaction (DBS). All the items were measured to ensure that it fits the data collected. One item, “*DBS2: Using medical services in Malaysia has been a good experience*” was found to have a squared multiple correlation (0.42) lower than the acceptable limit of 0.50. This might be a result of similarity in the wordings or the response pattern. Further examination found that the item has a low factor loading, which affected the model fit. Past studies that maintained all five items of the constructs was focused on theme park visitation and leisure tourism (Bigné, Andreu & Gnoth 2005; Veasna, Wu & Huang 2013), but not medical tourism. Rather and Sharma (2016) used only four items which is consistent with the current study. The low loading and squared multiple correlations might be as a result of the item not applicable to the medical tourism industry. As a result, the item was dropped from further analysis and a measurement model constructed with the remaining four items. Table 6.3 below shows the standardised regression weight for the items.

Table 6.3: DBS - Standardised regression weights

<i>No</i>	<i>Item</i>	<i>Standardised regression weights</i>
DBS1	I am sure it was the right thing to be a medical tourist in Malaysia	.69
DBS3	I feel good about my decision to visit Malaysia as a medical tourist	.72
DBS4	I have truly enjoyed the medical services in Malaysia	.73
DBS5	I am satisfied with my decision to visit Malaysia as a medical tourist	.85

The five-item of destination brand loyalty (DBL) were measured next to ensure that it fits with the data collected. Two of the items, “*DBL4: I consider Malaysia as the first choice for medical tourism*” and “*DBL3: I would encourage friends and relatives to visit Malaysia for medical tourism*” were found to have low factor loadings and squared multiple correlations. The initial model was focused on manufacturing companies where all five items were validated and used for the study (Zeithaml, Berry & Parasuraman 1996). A recent focus on tourism destination has seen different studies retain only three to four items in measuring destination loyalty (Yousaf & Amin 2017; Bianchi, Pike & Lings 2014; Stylos et al. 2016). With the focus on the medical tourism industry, the two items might not be applicable for medical tourists. Hence, both items were dropped from further analysis and measurement model constructed with the remaining three items.

Table 6.4 shows the standardised regression weight for the items, while the model fit indices for the full dependent measurement scale are shown in Table 6.5

Table 6.4: DBL - Standardised regression weights

<i>No</i>	<i>Item</i>	<i>Standardised regression weights</i>
DBL1	I will say positive things about Malaysian medical tourism to other people	.76
DBL2	I would recommend Malaysia to someone who seeks advice for medical tourism	.84
DBL5	I will revisit Malaysia in the next few years if the need arises	.72

Table 6.5: Model fit indices for dependent variables

<i>X²</i>	<i>df</i>	<i>X²/df</i>	<i>GFI</i>	<i>CFI</i>	<i>NFI</i>	<i>RMR</i>	<i>RMSEA</i>	<i>P</i>
28.63	13	2.202	.98	.98	.97	.02	.05	.044

The model fit indices for the dependent variables show a good fit between the measurement model and the data. Apart from one item, the squared multiple correlations were all above the minimum threshold of 0.5, indicating that the items are a good reflective indicator of medical tourists' perception of destination brand satisfaction and loyalty. Reliability and validity were checked through AVE and CR, with a composite variable of the dependent variables through summation. Table 6.6 below presents the calculations.

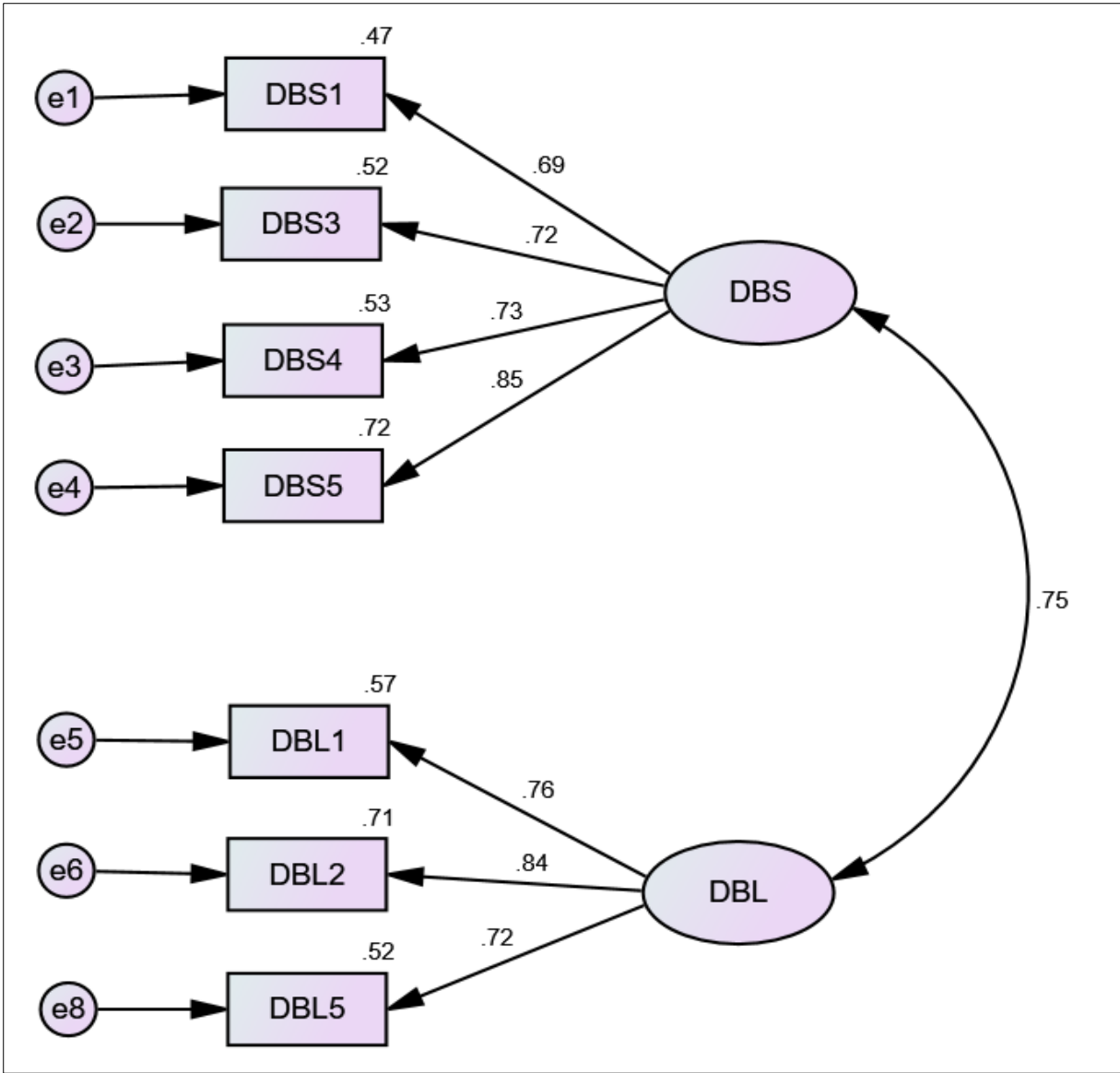
Table 6.6: Mean, composite reliability & AVE for dependent variables

<i>Construct</i>	<i>Mean</i>	<i>Composite reliability</i>	<i>Average variance extracted</i>
DBS	.74	.83	.56
DBL	.77	.82	.60

The above table showed AVE is at 0.56 and 0.60 for DBS and DBL respectively. Both are within the acceptable limit of 0.50 which demonstrates good validity for the items measured. The CR is at 0.83 and 0.82 for DBS and DBL respectively. Both are within the acceptable limit of 0.60 which demonstrates good reliability for the items measured.

6.2.2 Full CFA model for dependent variables

The CFA of the two dependent variables showed a good model fit which means the model is an adequate representation of the data captured. Logically, strong correlations are expected within DBS and DBL. With the squared multiple correlations slightly below 0.50 for one of the item in DBS, there is an opportunity to improve this by conducting second-order CFA. The second-order CFA will help to demonstrate construct validity for all dimensions if the correlations are right. Hence, the full measurement model and fit indices for dependent variables can be seen below in Figure 6.1.



χ^2	df	χ^2/df	<i>GFI</i>	<i>CFI</i>	<i>NFI</i>	<i>RMR</i>	<i>RMSEA</i>	<i>P</i>
28.63	13	2.202	.98	.98	.97	.02	.05	.044

Figure 6.1: Full measurement model and fit indices for dependent variables

From the figure above, it is evident that the constructs of DBS and DBL have strong correlations, as their correlation value is 0.75. Hence, the model fit confirms the acceptable fit between the measurement model and the data for both dependent variables. Although the p-value is slightly below the accepted value of 0.05, the initial p-value before Bollen-Stine test was assessed showed a highly significant value (0.007). With a sample of 500 bootstraps, the

Bollen-Stine test show that the model fits better in 479 bootstrap samples as well as in 0 bootstrap samples, and failed or fit worse in 21 bootstrap samples. Byrne (2016) found that once the Bollen-Stine test is better than the initial value, the model can be acceptable notwithstanding the significant value. Several statisticians argue that it is acceptable due to chi-square sensitivity to sample size (Kim & Millsap 2014; Walker & Smith 2017; Schermelleh-Engel, Moosbrugger & Müller 2003). Others also found that other fit indices should be considered without basing the decision on chi-square alone (Bentler 1990; Hu & Bentler 1995; Vandenberg 2006; Byrne 2016).

6.3 Purification of independent variables

The following section presents the CFA on the independent variables. These include destination brand image with three dimensions which are cognitive, affective and conative image. The other independent variables are destination brand awareness and destination brand quality. The validation of these measurements scales was done through CFA to ensure that the scales retain their validity. Hence, CFA was conducted on each of these scales to ensure the items represent a good reflective indicator of the variable. Additionally, validity and reliability checks through AVE and CR methods for all the constructs was done and a model fit for the constructs determined.

6.3.1 CFA on the independent variables

The three dimensions of destination brand image (DBI) assessed for the present study are cognitive image, affective image and conative image. With regards to medical tourist perception of destination brand image (DBI), it was assumed that medical tourists with the cognitive image would more likely have some knowledge or belief about the destination. The affective image was assumed to be the emotional feelings (positive or negative) of medical tourists towards the characteristics of the destination. Whereas it was assumed that conative image represents the behavioural intention of medical tourists towards the destination. Hence, these three DBI dimensions were treated separately as independent variables. The standardised regression weights, validity and reliability check of these variables are presented below.

A 21-item measure captures the cognitive image of a destination. As the measurement scale for this construct was adopted from the pre-existing scale, three factors emerged from this measure. Of the three factors, appealing conditions contained a 3-item scale, whereas essential and attractive conditions of the cognitive image contained 2-items each. The other items such as “*cognitive1: Good quality of medical facilities and infrastructure, cognitive2: Standard of hygiene & cleanliness, cognitive3: Political stability, cognitive11: Family-oriented destination and others*” showed a very low standardised regression weight and squared multiple correlations. Upon closer inspection, it can be seen that some of the items also have high residual values. Although Stylos et al. (2016; 2017) tested the items for tourism destinations, these items might not be appealing to medical tourism destinations in relation to the cognitive image. As a result, the respondents might disagree in rating the items as high as others. Hence,

in other to ensure consistency with the perception of medical tourists towards a destination, these items were dropped from further analysis.

Even though four items emerged in the pre-existing scale (Stylos et al. 2016; 2017; King, Chen & Funk 2015), the fourth factor (natural conditions) showed very low estimates and squared multiple correlations which indicate low variance extracted by each item due to measurement error. This factor includes items such as “*cognitive19: good climate, cognitive22: great beaches and cognitive21: beautiful landscape*”. Therefore, the factor was not considered a good indicator of cognitive image perception of medical tourists. Table 6.7 below shows the standardized regression weights for the measurement items, while table 6.8 presents the mean, composite reliability and average variance extracted (AVE).

Table 6.7: DBI (Cognitive image) - Standardised regression weights

No	Item	Standardised regression weights
Attractive conditions		
Cognitive5	Unpolluted/unspoiled natural environment	.86
Cognitive6	Implementation of policies towards sustainability & environmental protection	.76
Essential conditions		
Cognitive8	Avoidance of daily routine	.77
Cognitive9	A safe place to travel	.87
Appealing conditions		
Cognitive14	Various shopping opportunities	.69
Cognitive15	Interesting cultural attractions	.88
Cognitive16	Interesting monuments historical & relevant events	.81

Table 6.8: Mean, Composite reliability and AVE for DBI (Cognitive image)

<i>Construct</i>	<i>Mean</i>	<i>Composite reliability</i>	<i>Average variance extracted</i>
Attractive conditions	.81	.79	.66
Essential conditions	.82	.81	.68
Appealing conditions	.79	.84	.64

The above table showed AVE for Attractive, Essential and Appealing conditions were at 0.66, 0.68 and 0.64 respectively, which are within the acceptable limit of 0.50. The CR for Attractive,

Essential and Appealing conditions were at 0.79, 0.81 and 0.84, which are higher than the acceptable limit of 0.60. This demonstrates acceptable construct validity and reliability for all seven items.

A seven-item scale was used to represent the affective image construct of destination brand image. A measurement model was constructed with these seven items. Items; “*Affective1: Unpleasant to pleasant*”, “*Affective3: Distressing to relaxing* and *Affective4: Negative to positive*”, were found to have very high residual values which is an indication of measurement error. Further examination of the items found that some of them have low factor loadings. Initial studies that tested this model to a destination are consistent with the outcome of four items (Qu, Kim & Im 2011), while some used three items as a benchmark for testing affective image of a destination (King, Chen & Funk 2015; Konecnik & Gartner 2007). Even though Stylos et al. (2016; 2017) used seven items, the current study focuses on a medical tourism destination. Hence, to ensure that the perception of medical tourists’ is maintained, the three items were dropped from further analysis and a measurement model constructed with the remaining four items. The standardised regression weights of the affective image are shown in Table 6.9, while the AVE and CR are shown in Table 6.10.

Table 6.9: DBI (Affective image) - Standardised regression weights

<i>No</i>	<i>Item</i>	<i>Standardised regression weights</i>
Affective2	Gloomy – Exciting	.67
Affective5	Unenjoyable – Enjoyable	.75
Affective6	Unfavorable – Favorable	.80
Affective7	Boring - Fun	.79

Table 6.10: Mean, Composite reliability and AVE for DBI (Affective image)

<i>Construct</i>	<i>Mean</i>	<i>Composite reliability</i>	<i>Average variance extracted</i>
Affective image	.75	.84	.57

The above table showed AVE is at 0.57 which is within the acceptable limit of 0.50 and CR is at 0.84 which is much higher than the acceptable limit of 0.60. This demonstrates acceptable construct validity and reliability.

The measurement scale used to represent conative image perception of a destination consists of eight items and a measurement model was constructed with these items. Some of the items; “Conative2: Expresses oneself as a suitable vacation choice, Conative8: Makes me believe that my vacations there may be the best reward/gift I can offer myself, Conative1: Was always a dream-destination to visit sometime during my lifetime and Conative6: Has evoked a persistent wish to visit it”, showed low squared multiple correlations (between 0.40 to 0.44) below the acceptable limit of 0.50. Upon further examination, it was found that Konecnik and Gartner (2007) applied only four items in conceptualizing conative image of a destination. Apart from Stylos et al. (2016; 2017) who used eight items in a comparative study of two different destinations, other destination studies have applied only three items in measuring the conative image of a destination (King, Chen & Funk 2015; Qu, Kim & Im 2011). Hence, medical tourists might not perceive these items as relevant to their perception of a destination. As a result, these items were dropped from further analysis and a measurement model constructed with the remaining four items. The standardised regression weights are shown in Table 6.11 whereas the CR and AVE are shown in Table 6.12.

Table 6.11: DBI (Conative image) - Standardised regression weights

<i>No</i>	<i>Item</i>	<i>Standardised regression weights</i>
Conative3	Helps me put in use knowledge that I have (i.e. history, geography, philosophy)	.73
Conative4	Was always/constitutes a personal goal for vacations	.84
Conative5	As a choice, it stems from a personal need of mine that had to be fulfilled	.86
Conative7	Encapsulates positive attributes that help in the growth of my personality	.70

Table 6.12: Mean, Composite reliability and AVE for DBI (Conative image)

<i>Construct</i>	<i>Mean</i>	<i>Composite reliability</i>	<i>Average variance extracted</i>
Conative image	.78	.86	.62

The AVE and CR are 0.62 and 0.86 respectively; both are higher than the acceptable limit of 0.50 and 0.60. This demonstrates a sound construct validity and reliability of the conative image of the destination.

The measurement scale used to represent DBA consists of five items and a measurement model was constructed with these items. One item; “*DBA2: This destination has a good reputation*”, was found to have low factor loadings and low squared multiple correlations (0.42) lower than the acceptable limit of 0.50. This might be a result of similarity in the wordings or the response pattern. Further examination found that the item has a low factor loading, which affected the model fit. Past studies that maintained all five items of the constructs was focused on consumer brand engagement and leisure tourism (Dwivedi et al. 2016; Ferns & Walls 2012), but not medical tourism. Boo, Busser and Baloglu (2009) used only four items in awareness of a tourism destination, which is consistent with the current study. With other studies using three items to measure destination awareness (Yousaf & Amin 2017; Yang, Liu & Li 2015; San Martín, Herrero & García de los Salmones 2019), the low loading and squared multiple correlations might be as a result of the item not applicable to the medical tourism industry. Hence, the item was dropped from further analysis and a measurement model constructed with the remaining four items. The standardised regression weights are provided in Table 6.13, and the CR and AVE are shown in Table 6.14.

Table 6.13: DBA - Standardised regression weights

<i>No</i>	<i>Item</i>	<i>Standardised regression weights</i>
DBA1	I am aware of Malaysia as a medical tourism destination	0.67
DBA3	I can recognize Malaysia among other similar medical tourism destinations	0.80
DBA4	The characteristics of this destination come to mind quickly when I think about medical tourism	0.85
DBA5	I can quickly recall the marketing about the destination	0.76

Table 6.14: Mean, Composite reliability and AVE for DBA

<i>Construct</i>	<i>Mean</i>	<i>Composite reliability</i>	<i>Average variance extracted</i>
DBA		0.85	0.60

The above table showed AVE is at 0.60 which is above the acceptable limit of 0.50 and CR is at 0.85 which is much higher than the threshold limit of 0.60. This demonstrates acceptable construct validity and reliability.

The measurement scale used to represent DBQ consists of five items and a measurement model was constructed with these items. Two items; “*DBQ2: The high quality of medical infrastructures and facilities*” and *DBQ2: High quality of accommodation*, were dropped due to low standardised regression weights and squared multiple correlations. Both DBQ1 and DBQ2 had standardised estimates of 0.49 and 0.41 respectively. The squared multiple correlations were 0.24 for DBQ1 and 0.16 for DBQ2. The initial model was focused on leisure tourism destination where all five items were validated and used for the study (Konecnik & Gartner 2007). Recent studies on tourism destination have seen different researchers retain only three to four items in measuring destination quality (Pike & Bianchi 2016; Bianchi & Pike 2011; Bianchi, Pike & Lings 2014; San Martín, Herrero & García de los Salmones 2019). With a focus on the medical tourism industry, the two items might not be applicable for medical tourists. Therefore, both items were dropped from further analysis and measurement model constructed with the remaining three items. Table 6.15 below presents the standardised regression weights, whereas Table 6.16 presents the AVE and CR of DBQ.

Table 6.15: DBQ - Standardised regression weights

<i>No</i>	<i>Item</i>	<i>Standardised regression weights</i>
DBQ3	The high quality of cleanliness at the medical facilities	.68
DBQ4	High level of personal safety	.79
DBQ5	Appealing local food (cuisine)	.73

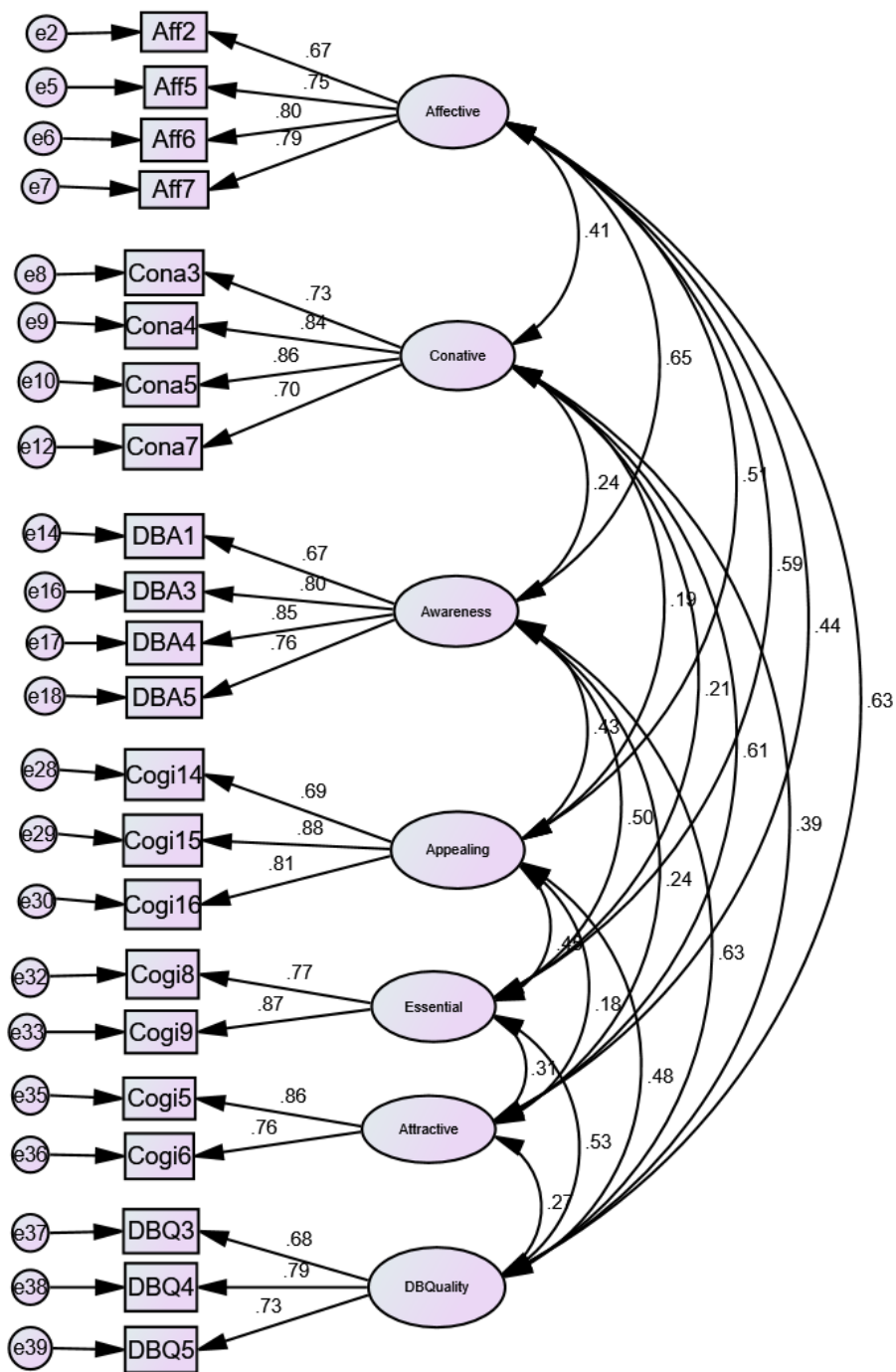
Table 6.16: Mean, Composite reliability and AVE for DBQ

<i>Construct</i>	<i>Mean</i>	<i>Composite reliability</i>	<i>Average variance extracted</i>
DBQ	.73	.78	.54

The AVE and CR are 0.54 and 0.78 respectively; both are higher than the acceptable limit of 0.50 and 0.60. This demonstrates a sound construct validity and reliability of the DBQ dimension. Hence, the construct will be retained for analysis.

6.3.2 Full CFA model for independent variables

The CFA of the independent variables showed a good model fit which means the model is an adequate representation of the data captured. The constructs are expected to have a strong correlation amongst each other and that was achieved. The squared multiple correlations are within the acceptable limit of 0.50 and above which indicate that the items are good reflective indicators of the variables. The full measurement model and fit indices for the independent variables can be seen below in Figure 6.2.



X^2	df	X^2/df	GFI	CFI	NFI	RMR	$RMSEA$	P
495.42	188	2.63	.91	.94	.90	.03	.06	.002

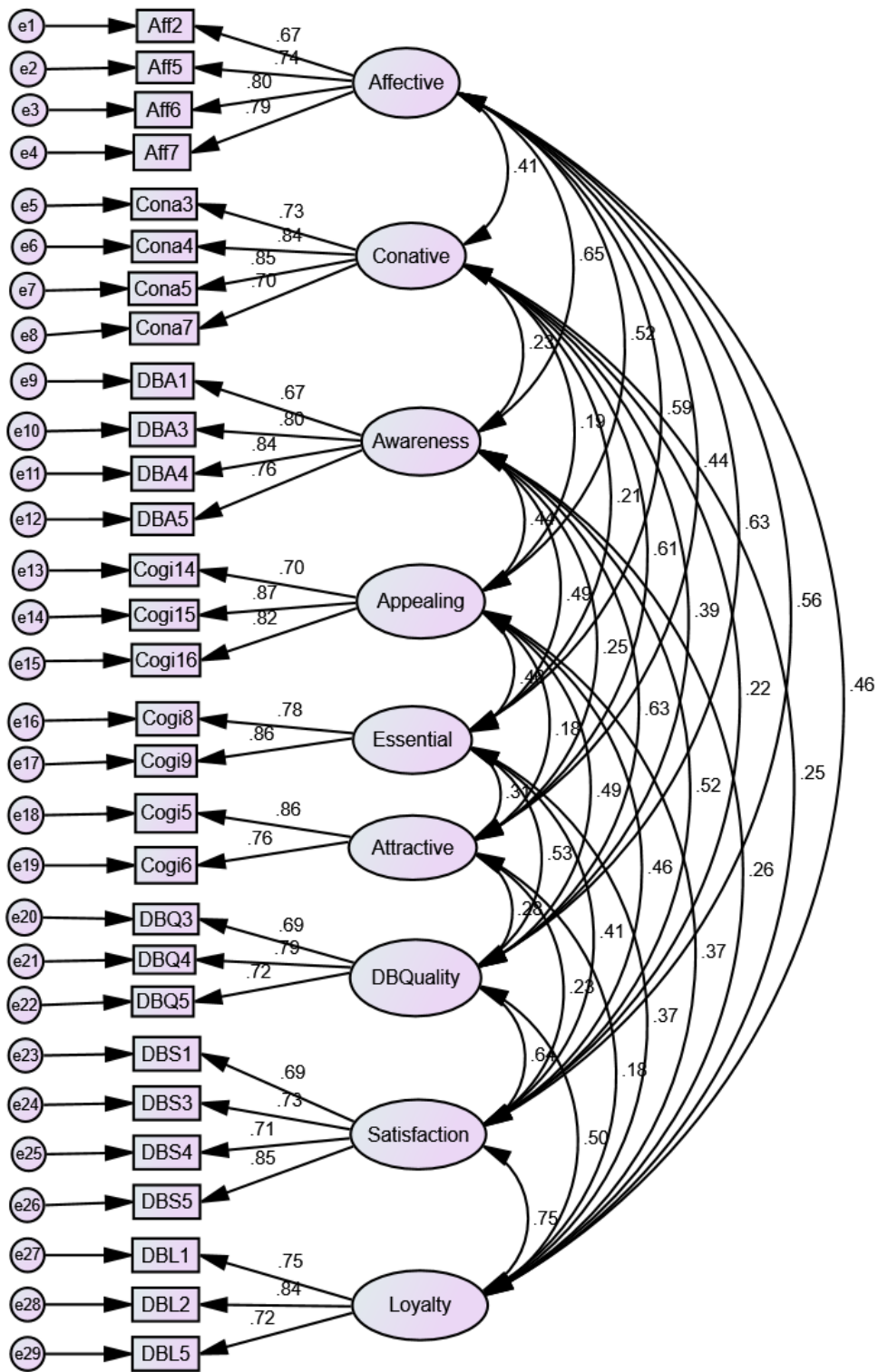
Figure 6.2: Full measurement model and fit indices for independent variables

The figure above presents the CFA model for the independent variables. The constructs have strong correlations among each other with the fit indices showing a good fit to data. With the

p-value showing significant value (0.000), the Bollen-Stine test was conducted. The bootstrap test of 500 bootstrap samples show that the model fits better in 500 bootstrap samples as well as in 0 bootstrap samples and fail or fit worse in 0 bootstrap samples. Based on Byrne (2016) recommendation, the model is can still be accepted. Several studies argued that other fit indices should be considered before rejecting a model due to the sensitivity of chi-square test to sample size (Hu & Bentler 1995; Schermelleh-Engel, Moosbrugger & Müller 2003; Walker & Smith 2017; Byrne 2016).

6.4 Overall CFA measurement model

The present study conducted CFA on all dependent (destination brand satisfaction and destination brand loyalty) and independent (Cognitive image, affective image, conative image, destination brand awareness and destination brand quality) variables and can see seen in Figure 6.3.



X^2	df	X^2/df	GFI	CFI	NFI	RMR	$RMSEA$	P
798.09	341	2.34	.89	.92	.88	.03	.05	.002

Figure 6.3: Overall CFA measurement model

The model fit indices show a good fit between the measurement model and data. Although the p-value is below the accepted value of 0.05, the initial p-value before Bollen-Stine test was assessed showed a highly significant value (0.000). With 500 bootstrap samples, the Bollen-Stine test show that the model fits better in 500 bootstrap samples as well as in 0 bootstrap samples and failed or fit worse in 0 bootstrap samples. Byrne (2016) found that once the Bollen-Stine test is better than the initial value, the model can be acceptable notwithstanding the significant value as a result of chi-square sensitivity to sample size. Several statisticians argue that it is acceptable due to chi-square sensitivity to sample size (Kim & Millsap 2014; Walker & Smith 2017; Schermelleh-Engel, Moosbrugger & Müller 2003). Others also found that other fit indices should be considered without basing the decision on chi-square alone (Bentler 1990; Hu & Bentler 1995; Vandenberg 2006; Byrne 2016).

The check for construct validity and reliability was calculated through AVE and CR as shown below in Table 6.17.

Table 6.17: Composite mean, standard deviation, reliability &AVE

<i>Construct</i>	<i>Composite reliability</i>	<i>Average variance extracted</i>
Attractive condition (COGIA)	.80	.66
Essential condition (COGIB)	.80	.67
Appealing condition (COGIC)	.84	.66
Affective image	.84	.57
Conative image	.86	.62
Destination brand awareness	.85	.60
Destination brand quality	.78	.54
Destination brand satisfaction	.84	.56
Destination brand loyalty	.82	.60

The above table demonstrated good reliability as the construct reliability for all variables were above the acceptance value of 0.60. The AVE for all the variable is also above the threshold of 0.50 which shows good validity.

The discriminant validity test for all variables can be seen in Table 6.18 below.

Table 6.18: Discriminant validity of constructs

	<i>DBS</i>	<i>Affective</i>	<i>Conative</i>	<i>DBA</i>	<i>Appealing</i>	<i>Essential</i>	<i>Attractive</i>	<i>DBQ</i>	<i>DBL</i>
DBS	0.749								
Affective	0.557	0.752							
Conative	0.224	0.406	0.785						
DBA	0.525	0.646	0.234	0.773					
Appealing	0.461	0.516	0.187	0.437	0.797				
Essential	0.414	0.594	0.208	0.494	0.457	0.821			
Attractive	0.226	0.435	0.610	0.246	0.179	0.308	0.813		
DBQ	0.645	0.635	0.388	0.633	0.486	0.530	0.276	0.735	
DBL	0.748	0.462	0.249	0.261	0.370	0.369	0.185	0.497	0.774

6.4.1 Common Method Bias

Common method bias (CMB) happens when variation in responses is caused by the instrument rather than the intrinsic thought of the respondents (Gorrell et al. 2011). Fuller et al. (2016) explained that CMB happens when responses systematically vary as a result of a common scaling approach of data collection. As a result, the instrument introduces bias and the result contaminated by such bias. Past studies have presented several measures to determine the extent of bias and to minimise CMB in studies. This study applied Harman’s single factor test, to test the extent of CMB in the variables. Two assumptions behind Harman’s technique is that for method bias to occur, either a single factor emerges from the factor analysis or a factor accounts for the majority of the covariance among measure (Podsakoff et al. 2003). Hence, all the items were loaded for the test to be carried out. The results show that the first factor explains 30.28 per cent of total variance explained and 10 factors were found to have Eigenvalues greater than one. This result confirms that there is no problem of method bias as the first factor does not explain majority of total variance (Podsakoff et al. 2003). Additionally, this study checked the impact of common latent factor in the measurement model. The result of this assessment show that significant relationships exist between the hypothesised items and their respective constructs. This also indicates the absence of method bias.

6.5 Invariance testing

There is a need to examine whether the items measuring a particular construct provide the same answer when applied to different populations of respondents (Byrne 2010). The difference in the population of respondents can arise from being of different age group, gender, level of education, etc. Additionally, invariance testing provides a way to address causal paths that might appear as the test is conducted. The test provides surety to the factorial structure of the measurement instrument by looking at the latent means of the constructs across the different population. Thus, the present study conducted an invariance test on the final CFA model to determine whether any differences exist in the data based on respondents' demographic factors. The test was conducted on five demographic factors of gender, age group, level of education, the purpose of visit and treatment type. The findings are presented below.

6.6.1 Gender variances

The test of invariance was conducted in the present study to captures any differences that might exist in the structural model due to respondents' gender difference. The study data contained female and male respondents.

Prior to conducting the interrelationship and stability test between the two groups, the metric and configural invariance of the final model was tested using CFA (Steenkamp & Baumgartner 1998; Horn & Mcardle 1992). Before constraining factor loadings to be equal as a metric invariance test, the CFA allows for model fit examination computed as a single input matrix. The unconstrained CFA displayed an acceptable model fit to the data ($\chi^2 = 1301.576$, $df = 682$, $CMIN/df = 1.908$, $CFI = .90$, $RMR = .04$, $RMSEA = .05$). This supports the configural invariance of a final model (Vandenberg & Lance 2000). Therefore, adequate goodness of fit was obtained when analysing a freely estimated model across two groups.

Researchers have suggested that configural invariances require the dimensional structure of the measurement model to remain the same between groups (Vandenberg & Lance 2000; Steenkamp & Baumgartner 1998; Horn & Mcardle 1992). Furthermore, to determine whether the factor loading pattern for items within dimensions was statistically equivalent, a metric invariance test was conducted. To test for metric invariance, two models were specified in CFA; the fully constrained model where the item loadings for each repeated measure is set to be equal, and the unconstrained model which is a freely estimated model (Steenkamp &

Baumgartner 1998). The fully constrained model produced $\Delta\chi^2 = 1395$ (711), whereas the overall unconstrained model produced $\Delta\chi^2 = 1302$ (682). This showed a $\Delta\chi^2 = 93$ (29), indicating that at the model level, a slight difference exists between the gender groups

Although metric invariance using chi-square difference test was not supported by CFA, Cheung and Rensvold (2002) argued that like the overall model fit, a test of metric invariance should be done using more than just one measure; especially with chi-square sensitive to sample size. CFI analysis indicates that the change in comparative model fit (Unconstrained model, CFI = .894, Constrained model, CFI = .885) was within 0.01 CFI boundary and metric invariance should not be rejected (Cheung & Rensvold 2002). Hence, the test of invariance applied to the model provided evidence of metric invariance on the boundary of recommended CFI and partial configural invariance.

This result confirms that the male and female respondents understood the items capturing the constructs in the same manner. Both respondent groups have shown the same response pattern as to their perception of medical tourism in Malaysia. The impact of all independent variables of the cognitive, affective and conative image, as well as destination brand quality and destination brand awareness also show no significant differences between female and male respondents.

An independent samples t-test was further conducted to compare the medical tourists' perception of destination brand satisfaction and loyalty reported by female respondents to the responses with male respondents. The result showed that the Levene's test was not significant, therefore, equal variances can be assumed. The t-test was also statistically non-significant, thereby confirming that there were no significant differences in the female and male respondents' perception of destination brand satisfaction and loyalty towards medical tourism in Malaysia.

6.6.2 Age group variances

The test of invariance was conducted to captures any differences that might exist in the structural model due to respondents' belonging to different age group. The study data was divided into three containing generation X (born between 1965 and 1979), generation Y (born between 1980 and 1994) and baby boomers (born between 1946 and 1964). The remaining age brackets were not considered because the age bracket was between 18 and 23 and only have

one respondent. Thus, it was insufficient to be included in the analysis. As a result, generation X, Y and baby boomers make up 432 respondents.

The unconstrained CFA displayed an acceptable fit to data ($\chi^2 = 1942.573$, $df = 1023$, $CMIN/df = 1.899$, $CFI = .870$, $RMR = .05$, $RMSEA = .04$), which supported the configural invariance of the final model (Vandenberg & Lance 2000). Additionally, the metric invariance test was conducted to determine whether the pattern of factor loading for items within the dimensions was statistically equivalent for all age groups. Two models were specified in the CFA for metric invariance test; The fully constrained model where the items loading for each repeated measure is set to be equal and the unconstrained model with freely estimated measures (Steenkamp & Baumgartner 1998). The fully constrained model produced $\Delta\chi^2 = 2105$ (1081), whereas the unconstrained model produced $\Delta\chi^2 = 1942$ (1023). This showed a $\Delta\chi^2 = 163$ (58), indicating a slight difference of the age groups at the model level

Although metric invariance using chi-square difference test was not supported by CFA, CFI analysis indicates that the change in comparative model fit (Unconstrained model, $CFI = .870$, Constrained model, $CFI = .855$) was within 0.015 CFI boundary and metric invariance should not be rejected (Cheung & Rensvold 2002). Hence, the test of invariance applied to the model provided evidence of metric invariance on the boundary of recommended CFI and partial configural invariance.

This finding endorses the assumption that respondents of generation X, Y and baby boomers did not understand the items capturing the constructs differently. The respondents have shown the same response pattern as to their perception of medical tourism in Malaysia. The age group of the respondents does not have any significant impact on the independent variables and the post-purchase intention. Hence, respondents of different age group have a similar perception of medical tourism in Malaysia.

An independent samples t-test was further conducted to compare the medical tourists' perception of destination brand satisfaction and loyalty reported by various age groups. The result showed that the Levene's test was not significant, therefore, equal variances can be assumed. The t-test was also statistically non-significant, thereby confirming that there were no significant differences in perception of respondents based on their age group.

6.6.3 Education variances

The test of invariance was conducted to capture any differences that might exist in the structural model due to different education levels of respondents. The study data were divided into two groups, which includes less educated (Completed some high school, college and vocational education), and highly educated (respondents that have completed their undergraduate and postgraduate studies). These groups contained 185 and 248 respondents within highly and less educated groups respectively.

The unconstrained CFA displayed an acceptable fit to data ($\chi^2 = 1430.400$, $df = 682$, $CMIN/df = 2.097$, $CFI = .890$, $RMR = .05$, $RMSEA = .05$), which supported the configural invariance of the final model (Vandenberg & Lance 2000). Additionally, the metric invariance test was conducted to determine whether the pattern of factor loading for items within the dimensions was statistically equivalent for both levels of education groups. Two models were specified in the CFA for metric invariance test; The fully constrained model where the items loading for each repeated measure is set to be equal and the unconstrained model with freely estimated measures (Steenkamp & Baumgartner 1998). The fully constrained model produced $\Delta\chi^2 = 1474$ (711), whereas the unconstrained model produced $\Delta\chi^2 = 1430$ (682). This showed a $\Delta\chi^2 = 44$ (29), indicating a slight difference of the education groups at the model level.

Although metric invariance using chi-square difference test was not supported by CFA, Cheung and Rensvold (2002) argued that like the overall model fit, a test of metric invariance should be done using more than just one measure; especially with chi-square sensitive to sample size. CFI analysis indicates that the change in comparative model fit (Unconstrained model, $CFI = .890$, Constrained model, $CFI = .888$) was within 0.002 CFI boundary and metric invariance should not be rejected (Cheung & Rensvold 2002). Hence, the test of invariance applied to the model provided evidence of metric invariance on the boundary of recommended CFI and partial configural invariance.

This finding endorses the assumption that less educated and highly educated respondents did not understand the items capturing the constructs differently. Both respondents have shown the same response pattern as to their perception of medical tourism in Malaysia. The impact of all independent variables of the cognitive, affective and conative image, as well as destination

brand quality and destination brand awareness also show no significant differences between less and highly educated respondents.

An independent samples t-test was further conducted to compare the medical tourists' perception of destination brand satisfaction and loyalty reported by less-educated respondents to the responses with highly educated respondents. The result showed that the Levene's test was not significant, therefore, equal variances can be assumed. The t-test was also statistically non-significant, thereby confirming that there were no significant differences in the less and highly educated respondents' perception of destination brand satisfaction and loyalty towards medical tourism in Malaysia.

6.6.4 Purpose of visit variances

Invariance testing was conducted to capture any differences that might exist in the structural model due to respondents' purpose of visit. The study data was divided into two with respondents visiting for medical services only and respondents visiting for both medical services and recreation. These groups contained 358 and 75 respondents within medical services and recreation, and medical services only groups respectively.

The unconstrained CFA displayed an acceptable fit to data ($\chi^2 = 1503.434$, $df = 682$, $CMIN/df = 2.204$, $CFI = .877$, $RMR = .05$, $RMSEA = .05$), which supported the configural invariance of the final model (Vandenberg & Lance 2000). Additionally, the metric invariance test was conducted to determine whether the pattern of factor loading for items within the dimensions was statistically equivalent for both groups. Two models were specified in the CFA for metric invariance test; The fully constrained model where the items loading for each repeated measure is set to be equal and the unconstrained model with freely estimated measures (Steenkamp & Baumgartner 1998). The fully constrained model produced $\Delta\chi^2 = 1629$ (711), whereas the unconstrained model produced $\Delta\chi^2 = 1503$ (682). This showed a $\Delta\chi^2 = 126$ (29), indicating that at the model level, a slight difference exists between the groups that came for medical services only and the ones that came for both medical services and recreation.

Although metric invariance using chi-square difference test was not supported by CFA, CFI analysis indicates that the change in comparative model fit (Unconstrained model, $CFI = .877$, Constrained model, $CFI = .863$) was within 0.014 CFI boundary and metric invariance should not be rejected (Cheung & Rensvold 2002). Hence, the test of invariance applied to the model

provided evidence of metric invariance on the boundary of recommended comparative fit indices and partial configural invariance.

This result verifies that respondents that visit for only medical services or medical services and recreation do not understand the items capturing the constructs differently. Both respondents have shown the same response pattern as to their perception of medical tourism in Malaysia. Thus, the purpose of the visit does not have any significant impact on their perception of medical tourism in Malaysia.

An independent samples t-test was further conducted to compare the medical tourists' perception of destination brand satisfaction and loyalty reported by both categories of respondents. The result showed that the Levene's test was not significant, therefore, equal variances can be assumed. The t-test was also statistically non-significant, thereby confirming that there were no significant differences in the respondents' perception of medical tourism in Malaysia.

6.6.5 Type of treatment variances

Invariance testing was conducted to capture any differences that might exist in the structural model due to the different type of treatment respondents came for. The study data was divided into two with respondents visiting for major treatment (Surgical procedures) and minor treatment (recuperation, check-up, etc.). These groups contained 351 and 82 respondents within respondents that came for major and minor treatments respectively.

The unconstrained CFA displayed an acceptable fit to data ($\chi^2 = 1503.336$, $df = 682$, $CMIN/df = 2.204$, $CFI = .879$, $RMR = .05$, $RMSEA = .05$), which supported the configural invariance of the final model (Vandenberg & Lance 2000). Additionally, the metric invariance test was conducted to determine whether the pattern of factor loading for items within the dimensions was statistically equivalent for both major and minor treatment groups. Two models were specified in the CFA for metric invariance test; The fully constrained model where the items loading for each repeated measure is set to be equal and the unconstrained model with freely estimated measures (Steenkamp & Baumgartner 1998). The fully constrained model produced $\Delta\chi^2 = 1570$ (711), whereas the unconstrained model produced $\Delta\chi^2 = 1503$ (682). This showed $\Delta\chi^2 = 67$ (29), indicating that at the model level, there is a slight difference between the major and minor treatment groups.

Although metric invariance using chi-square difference test was not supported by CFA, CFI analysis indicates that the change in comparative model fit (Unconstrained model, CFI = .879, Constrained model, CFI = .874) was within 0.005 CFI boundary and metric invariance should not be rejected (Cheung & Rensvold 2002). Hence, the test of invariance applied to the model provided evidence of metric invariance on the boundary of recommended CFI and partial configural invariance.

This result confirms that the respondents that seek either major or minor treatment did not understand the items capturing the constructs differently. The type of treatment they seek does not have any significant on their perception of Malaysia as a medical tourism destination. Hence, medical tourists that visit for either major or minor treatment have a similar perception about medical tourism in Malaysia.

An independent samples t-test was further conducted to compare the medical tourists' perception of destination brand satisfaction and loyalty reported by both major and minor treatment visitors. The result showed that the Levene's test was not significant, therefore, equal variances can be assumed. The t-test was also statistically non-significant, thereby confirming that there were no significant differences in the perception of respondents seeking major or minor treatment in Malaysia.

6.7 Factors influencing medical tourists' decision to choose a destination

A section of the questionnaire comprised five factors measuring the motivation of medical tourists to choose a destination. These five factors are 1) cost of treatment, 2) reputation of physicians, 3) quality medical services, 4) waiting time, and 5) accreditation of medical facilities.

The respondents were asked to rate the level of importance of each of the factors ranging from most important (represented by one) to least important (represented by five). With one as the most important factor and five the least important, the lowest mean score represents the most important factors, whereas the highest mean score represents the least important factor. Table 6.19 shows the mean scores and standard deviations, while Table 6.20 represents the respondents' rating of the five factors.

The top three most important factors that motivate medical tourists' choice of Malaysia as a destination were the cost of treatment, quality of medical services, and the reputation of physicians. These factors have the lowest mean score and the highest scores of one (most important), two (2nd choice) and three (3rd choice). Their selection reflects medical tourists' view on the affordability of medical services, quality of services and physician's reputation. The remaining two factors (accreditation of medical facilities and waiting time) are least favoured by respondents. Although few respondents chose the factors as most important, the majority of respondents consider them as least important in choosing a destination for medical tourism.

Table 6.19: Ranking of the factors based on the mean score

<i>Motivational Factors</i>	<i>Mean</i>	<i>Standard Deviation</i>
Cost of treatment	2.14	1.022
Quality of medical services	2.21	1.115
Reputation of physicians	2.37	0.961
Accreditation of medical facilities	3.87	1.239
Waiting time	4.43	0.829

Table 6.20 Respondents rating of the factors

<i>Items</i>	<i>Most Important</i>	<i>2nd Choice</i>	<i>3rd Choice</i>	<i>4th Choice</i>	<i>Least Important</i>
Cost of treatment	146	128	121	30	8
Quality of medical services	137	151	77	54	14
Reputation of physicians	99	117	181	29	7
Accreditation of medical facilities	37	33	43	157	163
Waiting time	12	4	11	163	242

6.8 Chapter summary

The measurement scales that were administered for this study through a questionnaire was presented in the current chapter. A detailed purification process for both independent and dependent variables was employed, with guidelines, purification techniques and processes explained. The same scale purification process was adopted for both dependent and independent variables which included CFA, validity and reliability checks, model fit, CR, convergent and discriminant validity checks. An iterative process was also followed when necessary to remove items and improve model fit.

Lastly, the test of invariance on CFA was conducted. The test was conducted on five different demographic groups, which includes age group (generation X, generation Y and baby boomers), gender (male and female), level of education (less educated and highly educated), type of treatment (major and minor treatment) and purpose of visit (medical services only and both medical services and recreation). All groups were found to be slightly non-variant, but partial invariance was achieved. Thus, confirming that there are no significant differences in medical tourists' perception. The chapter was concluded with the findings on the factors that motivate medical tourists' choice of a destination.

Chapter 7: Data Analysis

Chapter 6 assessed the quality of the constructs measures by considering the validity and reliability before and after forming the composite variables. The present chapter presents the main findings of this study by investigating these derived composite variables to determine whether the hypothesised relationships depicted in the “*destination branding factors that influence medical tourists’ post-purchase decisions*” are supported by the sampling data using Structural Equation Modelling (SEM). An initial model that extended Keller’s CBBE model to include different components of the destination image, was first constructed based on the SEM results, then the model was re-specified, and a final model composed. Direct, indirect and total effects of each path were calculated, and their statistical significance evaluated.

7.1 Evaluation of data analysis techniques

There is a range of data analysis and methodological techniques that could be considered for the present study. Some of these include partial least squares, conjoint and cluster analysis, and choice modelling. These techniques are evaluated below.

7.1.1 Partial least squares, conjoint and cluster analysis, and choice modelling

Partial Least Squares (PLS) is a multivariate technique and like SEM, allows comparison between multiple response and explanatory variables. It is also sometimes known as SEM and like SEM, has been designed to deal with similar types of data when the data or sample size is either small, the presence of multicollinearity, or there are missing values (Garthwaite 1994; Mehmood et al. 2012). PLS is popularly used in hard sciences such as chemistry, where there is usually a high number of correlated variables with a limited number of observations. In marketing and tourism destination studies, this technique has been used less, hence it was not a preferred analytical tool in the present study (Ryan, Rayner & Morrison 1999).

Conjoint analysis is a technique to elicit preferences and it uses ranking instead of Likert-type scale responses (Louviere, Flynn & Carson 2010). Louviere, Flynn and Carson (2010) suggest that theoretically, this technique is not concerned with the behaviour of humans or human

preferences, rather it is concerned with the behaviour of number systems as it is purely mathematical.

Choice modelling unlike conjoint analysis, can be used to assess human behaviour and not just numbers (Louviere, Flynn & Carson 2010). This technique has been used in marketing and tourism destination research to analyse tourist destination image and preference for a choice destination, consumer choice behaviour and product quality, product brand strategy and choice of destination ((McFadden 1986; Zhao, Zhao & Helsen 2011; Huybers 2003; Carballo et al. 2015).

In the present study, a full model entails investigating the post behavioural intentions of medical tourists (dependent), with destination branding factors that were likely to influence their post-purchase behaviour (independent variables) and not just one of the other. The measurement of the influence of destination branding factors on post behavioural intention through Likert-type scale enabled this study to identify broad categories of destination branding factors for deeper analysis. Therefore, this study is beyond the scope of both conjoint analysis and choice modelling, thereby opting for SEM. Factor analysis and SEM enable a broad range of testing and was deemed the most appropriate analysis technique for this study.

7.2 Structural Equation Modelling (SEM)

Hair et al. (2014) defined SEM as “*a family of statistical models that seek to explain the relationships among multiple variables*” (p. 546). There are three common characteristics seen in all SEM techniques; 1) the ability to estimate both interrelated and multiple dependence relationships, 2) the ability to incorporate latent variables into the analysis and account for measurement error in the estimation process and 2) defining a model to explain all the relationships (Hair et al. 2014). It is a widely used statistical technique that combines the CFA (measurement models) and path models (structural model) using latent variables. The relation among the latent variables is usually tested in the structural model after the measurement models achieve a good model fit (Schumacker & Lomax 2016; Hair et al. 2014). Apart from assessing relations between latent variables, SEM provides a measure of model fit and accounts for measurement errors. Therefore, SEM is deemed suitable for exploring the correlations in the present study.

7.2.1 Advantages and limitations of SEM

SEM provides a detailed and systematic means to assess and test theoretical models (Anderson & Gerbing 1988). It is considered to be the most comprehensive and attractive data analysis technique that can test complex relationships (Kelloway 1998; Hu & Bentler 1999). Compared to traditional factor analysis and multiple regression, SEM is viewed as being the superior technique because, instead of examining one single relationship at a time, it can accommodate simultaneous equations with many dependent variables (Fassinger 1987; Hair et al. 2010).

According to Islam and Faniran (2005), SEM allows the specification of relationships among different latent variables and measurement errors, as a result, it produces more accurate representations. Additionally, this data analysis technique is better than path analysis because it takes into account measurement errors in exogenous variables (Tabachnick & Fidell 2013). Although all these advantages exist, SEM is also considered to be a complex, demanding and difficult procedure (Kelloway 1998), with limitations. One of the most commonly cited limitations of SEM is that correlation is not the same as causation, and it does not provide the direction of relationships (Hair et al. 2010)

This chapter is organised in the following manner. Firstly, a step-by-step guide on how SEM was conducted is presented, as well as an explanation of various new terminologies used. Next, an initial hypothesised model is constructed, model fit was assessed, and hypotheses support was checked. Then, a rationale for re-specifying the model was provided before embarking on re-specification of the initial model. Thereafter, the model fit is assessed to ensure the model still fits and hypotheses tested for support.

7.2.2 Measurement models

The present study adopts a two-stage model recommended by past studies that starts by first developing a measurement model and then developing a structural model (Anderson & Gerbing 1988; Schumacker & Lomax 2016). The measurement model which they also referred to as the factor model shows the extent of the relationship among observed variables based on latent variables and provides an assessment of discriminant and convergent validity. The structural model examines the relationship among latent variables based on theory and provides an assessment of nomological validity (Anderson & Gerbing 1988; Schumacker & Lomax 2016).

This study tested the measurement model first to gauge the lack of fit attributable to measurement alone before testing the structural model.

7.2.3 Model evaluation

A variety of statistical tests of significance are provided in SEM can be used to identify the best model for the sample data. Hence, the present study used several goodness-of-fit criteria to test the model. The different model fit indices and statistics include; Comparative Fit Index (CFI), chi-square, Normed Fit Index (NFI), Tucker Lewis Index (TLI), Root Mean Square Residual (RMR), Root Mean Squared Error of Approximation (RMSEA) and Goodness-of-Fit Index (GFI). The previous chapter used the same indices to determine the model fit while conducting CFA.

7.2.4 Measurement model re-specification

Several scholars provided advice from which guideline for model re-specification was drawn (Schumacker & Lomax 2016; Kline 2011; Hair et al. 2014). These guidelines form the general principles of model re-specification process and are presented below.

- The model re-specification process should be guided by theory; hence, no parameters should be either included or excluded without a theoretical underpinning.
- Checks for the size and significance of modification indices, direction of squared multiple correlations, the size of residuals and directionality of parameter estimates should be carried out.
- The addition or removal of parameters should be done one at a time and should involve rerunning the model after each modification until a model with an acceptable fit to the data is achieved.
- This process preferred deletion of items to post hoc co-variation of error terms.

The present study has applied the same principles in the measurement model. The modification indices were repeatedly checked, items were removed or paths re-specified and analysis re-run to improve the model fit whenever it indicates a poor fit to data.

7.2.5 Composite variables

The present study has formulated a model based on latent constructs and by definition, latent constructs cannot be directly measured (Byrne 2010). For instance, several items capture destination brand awareness as it is not possible to measure the construct directly with a single question. After CFA, the items that were confirmed to contribute to each unidimensional latent factor were collapsed to make multi-item composite factors. There are some advantages of using composite variables instead of individual observed measures; as the sources of sampling errors are reduced, they equally reduce the chance of residuals been correlated, and this effectively cancels out systematic and random errors (Little et al. 2002); composite variables overcome the violation of items that are normally distributed (Sass & Smith 2006; Little et al. 2002); they also help reduce the model complexity (Kline 2011); the chance of spurious correlations are reduced which occurs as a result of fewer estimates required (Little et al. 2002). Landis, Beal and Tesluk (2000) added that the stability of the structural relationship estimates is greatly enhanced with the use of composite variables.

The multi-item composites were created in the present study by calculating averages for items in the same construct. Table 7.1 below presents the descriptive statistics of all the composite variables. Both kurtosis and skewness fall within the range of -1 to 1. Apart from destination brand awareness, the rest of the variables are negatively skewed. This is common, especially when using a 7-point Likert-type scale. Negative skewness indicates the presence of fewer small values, whereas a positive skewed value shows the presence of fewer larger values (Hair et al. 2014). Hence, the table shows that the variables follow a normal distribution.

Table 7.1: Descriptive statistics for composite variables

<i>Construct</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>Std. deviation</i>	<i>Skewness</i>	<i>Kurtosis</i>
Destination brand satisfaction	2.00	7.00	3.21	0.407	-0.428	0.329
Destination brand loyalty	3.00	7.00	2.45	0.334	-0.870	0.300
Attractive conditions of cognitive image	2.00	7.00	3.78	0.438	-0.632	0.354
Essential conditions of cognitive image	3.00	7.00	2.88	0.429	-0.195	-0.214
Appealing conditions of cognitive image	3.00	7.00	2.88	0.410	-0.078	-0.238
Affective image	2.00	7.00	3.04	0.429	-0.593	-0.061
Conative image	2.00	7.00	4.31	0.631	-0.362	-0.151

Destination brand awareness	2.00	7.00	2.67	0.518	0.005	-0.391
Destination brand quality	2.00	7.00	3.65	0.435	-0.110	-0.294

7.2.6 Initial Structural Equation Model

The present study used a statistical package, Analysis of Moment Structures (AMOS) for data analysis. The Maximum Likelihood Estimation (MLE) was also utilized as a result of its renowned robustness to the violation of normality (Chou & Bentler 1995; Hoyle & Panter 1995). According to Hair et al. (2014), “MLE is A procedure that iteratively improves parameter estimates to minimize a specified fit function” (p.544) . Although the Asymptotic Distribution Free (ADF) estimation approach was specifically developed for non-normally distributed data, it was not employed in this study because it produces inconsistent results except with very large sample size (>5000) (Chou & Bentler 1995; Baumgartner & Homburg 1996; Hoyle & Panter 1995). Hence, as the sample size for the present study is 433, the ADF was not considered a viable option. The table (Table 7.2) introduces the new terminology used in this chapter.

Table 7.2: Terminology used

<i>Term</i>	<i>Explanation</i>
Exogenous variable/construct	Constructs acting only as a predictor, with changes in value influenced by factors outside the model
Endogenous variable/construct	Synonymous with dependent variables, with one or more arrows leading into it in the path diagram
Squared multiple correlations	Indicates the amount of variance predicted or explained by its respective factor
Standardised path coefficients/ Factor loadings/ standardised regression weights	The strength of the causal relationship between the variables joined by the arrow
Error variables	The residual variation in each item not explained by the latent variable
Latent variables	Unobserved variables
Manifest variables	Observed variables

(Byrne 2010; Hair et al. 2014)

After the scale purification, 17 hypotheses were generated for this study, where the cognitive image dimension had to be divided into three sub-constructs (i.e., essential, attractive and appealing conditions). Furthermore, destination brand satisfaction will be tested as a mediator

between destination brand awareness, quality and loyalty. This test is necessary to determine whether any indirect relationship that exist between the variables. These hypotheses are presented below.

Hypotheses for destination brand image

H1a: Essential conditions of the cognitive image is positively associated with destination brand satisfaction

H1b: Essential conditions of the cognitive image is positively associated with destination brand loyalty

H1c: Attractive conditions of the cognitive image is positively associated with destination brand satisfaction

H1d: Attractive conditions of the cognitive image is positively associated with destination brand loyalty

H1e: Appealing conditions of the cognitive image is positively associated with destination brand satisfaction

H1f: Appealing conditions of the cognitive image is positively associated with destination brand loyalty

H1g: Affective image is positively associated with destination brand satisfaction

H1h: Affective image is positively associated with destination brand loyalty

H1j: Conative image is positively associated with destination brand satisfaction

H1k: Conative image is positively associated with destination brand loyalty

Hypotheses for destination brand awareness

H2a: Destination brand awareness is positively associated with destination brand satisfaction

H2b: Destination brand awareness is positively associated with destination brand loyalty

Hypotheses for destination brand quality

H3a: Destination brand quality is positively associated with destination brand satisfaction

H3b: Destination brand quality is positively associated with destination brand loyalty

Hypotheses for destination brand satisfaction

H4a: Destination brand satisfaction is positively associated with destination brand loyalty

H4b: Destination brand satisfaction positively mediates the relationship between destination brand awareness and destination brand loyalty

H4c: Destination brand satisfaction positively mediates the relationship between destination brand quality and destination brand loyalty

Kline 2016 explained recursive models as a model characterized with no feedback loops, where the residual errors of the endogenous variables are not correlated, and all the relationships flow one way. Figure 7.2 below presents the initial structural equation model.

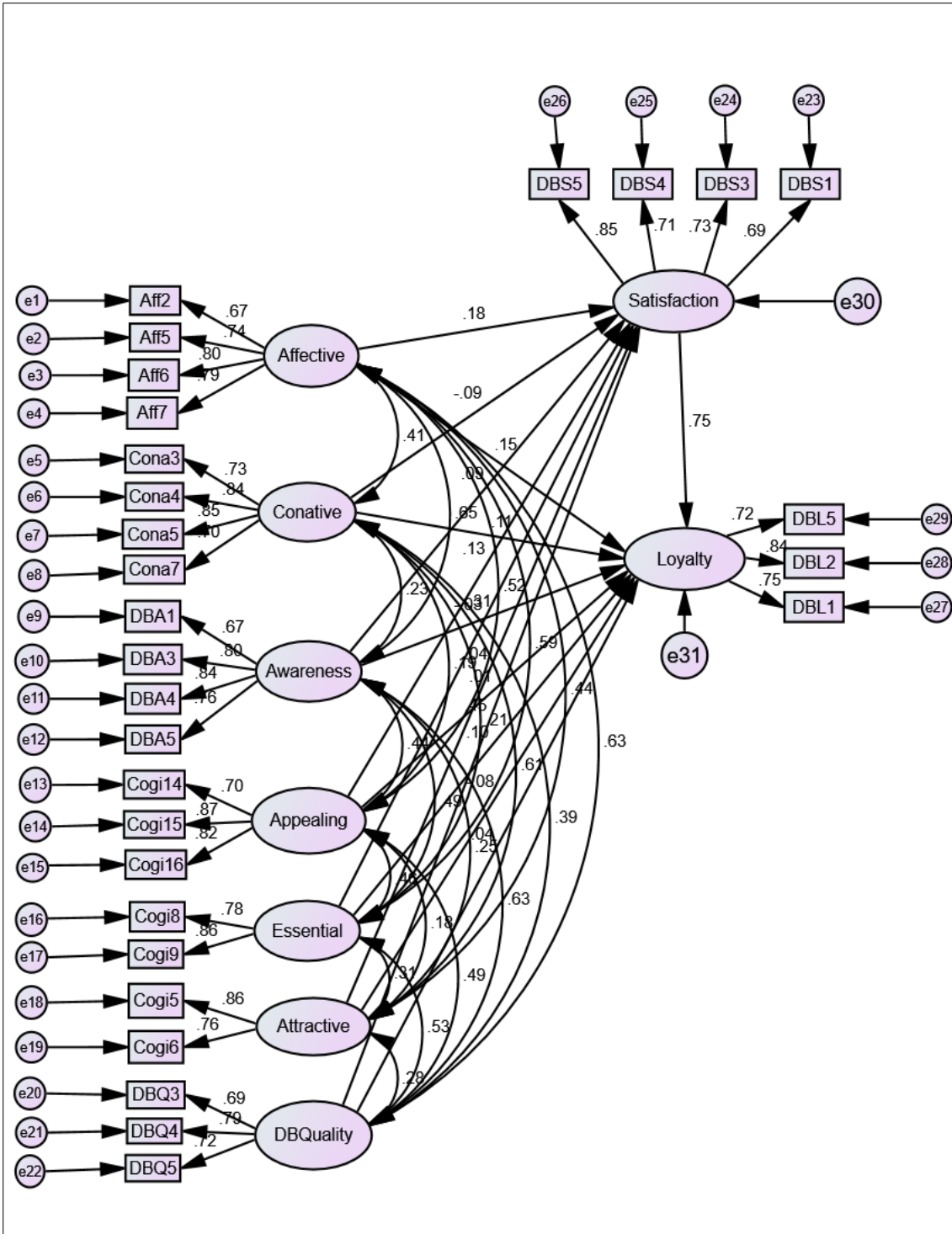


Figure 7.1: Measurement model for medical tourism

Table 7.3: Measurement model fit indices for medical tourism

X^2	df	X^2/df	GFI	CFI	NFI	RMR	$RMSEA$	P
798.09	341	2.33	.89	.93	.88	.03	.05	.002

The structural model and fit indices presented above (Figure 7.1 and Table 7.3 respectively) is an acceptable fit to data. With the initial measurement model showing a significant p-value (0.000), the Bollen-Stine bootstrap procedure was conducted to account for potential breaches in ML estimation assumptions (Cunningham 2008; Hair et al. 2014). The results from 500 bootstrap samples show that the model fit is better in 500 bootstrap samples as well as in 0 bootstrap samples and failed or worse to fit in 0 bootstrap samples. The Bollen-Stine bootstrap returned a reported p-value of .002 and can be considered an acceptable fit to sample data.

Statisticians have varying opinion about the Chi-square test and the choice of indices. Barrett (2007) argued that the chi-square test as a statistical significance test should be the only one to be reported. Whereas, Markland (2007); Steiger (2007) argue that fit indices presents a broader picture of the SEM model and should be used to supplement the chi-square. As a result, Byrne (2016) found that a significant p-value can still be accepted provided other model fit indices are at an acceptable value. Several studies note that chi-square is sensitive to sample size and as a result, sample above 200 may have a significant p-value (Walker & Smith 2017; Arbuckle 2012; Gefen, Straub & Boudreau 2000; Schermelleh-Engel, Moosbrugger & Müller 2003). Other studies also note that with chi-square/df value less than 3, and other fit indices at an acceptable value, the decision to reject a model should not be based on p-value alone (Hu & Bentler 1995; Vandenberg 2006; Schermelleh-Engel, Moosbrugger & Müller 2003; Kim & Millsap 2014; Bentler 1990). Thus, this model is considered an acceptable fit to data.

The figure (Figure 7.1) below presents the initial structural equation modelling with a combination of items into the main variables. This was carried-out to minimise the complexity of the model and to ensure that the model is easy to read and understand. This model will be utilized for further analysis.

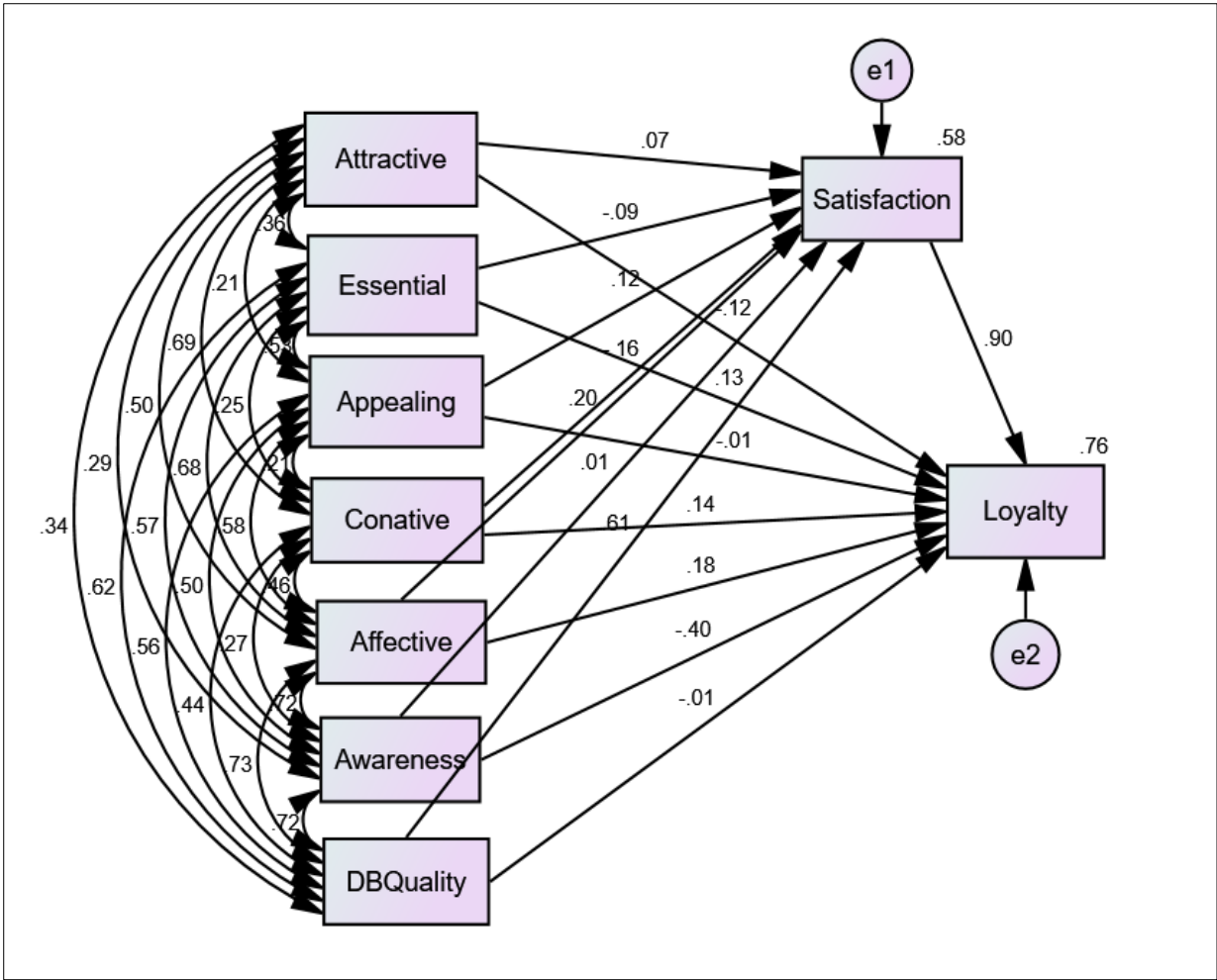


Figure 7.2: Initial structural model for medical tourism

Table 7.4 Initial structural model fit indices for medical tourism

X^2	df	X^2/df	GFI	CFI	NFI	RMR	$RMSEA$	P
1.973	1	1.973	.99	1.000	.99	.002	.04	.160

The model fit indices show a reasonable fit of measurement model with data. However, some of the regression weights are quite low, with essential and attractive conditions of cognitive image to destination brand satisfaction, as well as appealing and attractive conditions of cognitive image to destination brand to loyalty, all showing regression weights below 0.10. Additionally, destination brand quality to satisfaction and destination brand awareness to loyalty also show regression weights of less than 0.10.

Some paths show negative effects, with attractive conditions, appealing conditions, destination brand quality and destination brand awareness to destination brand loyalty, all showing

negative effects. Additionally, the paths from essential conditions and conative image to destination brand satisfaction both show negative effects.

The following table (Table 7.5) presents the hypothesis (supported or not supported) from the initial structural equation model

Table 7.5: Hypotheses support

<i>H</i>	<i>Regression Paths</i>	<i>B</i>	<i>P</i>	<i>Result</i>
H1a	Essential conditions of cognitive image to destination brand satisfaction	-0.067	0.089	Not Supported
H1b	Essential conditions of the cognitive image to destination brand loyalty	0.101	0.000	Supported
H1c	Attractive conditions of cognitive image to destination brand satisfaction	0.010	0.833	Not Supported
H1d	Attractive conditions of the cognitive image to destination brand loyalty	-0.087	0.000	Not Supported
H1e	Appealing conditions of the cognitive image to destination brand satisfaction	0.13	0.004	Supported
H1f	Appealing conditions of the cognitive image to destination brand loyalty	-0.010	0.732	Not Supported
H1g	Affective image to destination brand satisfaction	0.215	0.000	Supported
H1h	Affective image to destination brand loyalty	0.159	0.000	Supported
H1j	Conative image to destination brand satisfaction	-0.102	0.002	Not Supported
H1k	Conative image to destination brand loyalty	0.110	0.000	Supported
H2a	Destination brand awareness to destination brand satisfaction	0.012	0.795	Not Supported
H2b	Destination brand awareness to destination brand loyalty	-0.337	0.000	Not Supported
H3a	Destination brand quality to destination brand satisfaction	0.666	0.000	Supported
H3b	Destination brand quality to destination brand loyalty	-0.010	0.838	Not Supported
H4a	Destination brand satisfaction to destination brand loyalty	0.836	0.000	Supported

The results reveal that the path between essential conditions of cognitive image and destination brand satisfaction as seen in H1a was not significant ($p = 0.089$). **Hence, H1a is not supported suggesting no significant effect of essential conditions on destination brand satisfaction.**

The results also reveal that the path between essential conditions of cognitive image and destination brand loyalty as seen in H1b was statistically significant ($p = 0.000$). **Hence, H1b**

is supported, suggesting a significant effect of essential conditions of the cognitive image on destination brand loyalty.

The path between attractive conditions of cognitive image and destination brand satisfaction as seen in H1c was not significant ($p = 0.833$). **Hence, H1c is not supported suggesting no significant effect of attractive conditions on destination brand satisfaction.**

The path between attractive conditions of cognitive image and destination brand loyalty as seen in H1d was statistically significant ($p = 0.000$) but has a negative effect. **Therefore, H1d is not supported suggesting no positive significant effect of attractive conditions on destination brand loyalty.**

The results in H1e reveal that the significance of the path ($p = 0.004$) between appealing conditions of cognitive image and destination brand satisfaction was found. **Hence, H1e is supported suggesting a positively significant effect of appealing conditions on destination brand satisfaction.**

H1f reveal that the path between appealing conditions of cognitive image and destination brand loyalty was not significant ($p = 0.732$). **Therefore, H1f is not supported suggesting no significant effect of appealing conditions on destination brand loyalty.**

The path in H1g reveal the significance ($p = 0.000$) between affective image and destination brand satisfaction was found. **Hence, H1g is supported suggesting the positively significant effect of affective image on destination brand satisfaction.**

H1h reveal that the path between affective image and destination brand loyalty was significant ($p = 0.000$). **Therefore, H1h is supported suggesting the positively significant effect of affective image on destination brand loyalty.**

The results in H1j reveal that the significance of the path between conative image and destination brand satisfaction was found ($p = 0.002$) but has a negative effect. **Hence, H1j is not supported suggesting that there is no positively significant effect of conative image on destination brand satisfaction.**

H1k reveal that the path between the conative image and destination brand loyalty was statistically significant ($p = 0.000$). **Therefore, H1k is supported suggesting a significant effect of conative image on destination brand loyalty.**

The path between destination brand awareness and destination brand satisfaction as seen in H2a was not significant ($p = 0.795$). **Hence, H2a is not supported suggesting no significant effect of destination brand awareness on destination brand satisfaction.**

The path between destination brand awareness and destination brand loyalty as seen in H2b was significant ($p = 0.000$) but has a negative effect. **Therefore, H2b is not supported suggesting that there is no positively significant effect of destination brand awareness on destination brand loyalty.**

The results in H3a reveal that the significance of the path between destination brand quality and destination brand satisfaction was found ($p = 0.000$). **Hence, H3a is supported suggesting the positively significant effect of destination brand quality on destination brand satisfaction.**

H3b reveal that the path between destination brand quality and destination brand loyalty was not significant ($p = 0.838$). **Therefore, H3b is not supported suggesting no significant effect of destination brand quality on destination brand loyalty.**

The results in H4a reveal that the significance of the path between destination brand satisfaction and destination brand loyalty was found ($p = 0.000$). **Hence, H4a is supported suggesting the positively significant effect of destination brand satisfaction on destination brand satisfaction.**

The above results show that slightly above half of the hypothesis was supported, providing a strong reason for model re-specification. The next section provides the reasons why the initial model was re-specified and a discussion of the procedure that was conducted.

7.2.7 Model Re-specification

Although goodness of fit indices is an indicator of a good model fit, Reisinger and Mavondo (2007) argue that they do not prove the model is good. One way of checking what can be done better is through model modifications. Schumacker & Lomax (2016) noted that when a model

lacks sufficient explanatory power, re-specification of the model can be done by removing some paths. An iterative process should be followed where the model will be re-evaluated after each non-significant path is removed to determine new fit indices (Schumacker & Lomax 2016; Hair et al. 2014).

Some scholars provided advice on the general principles to be used as guidelines for model re-specification process (Bollen 1989; Diamantopoulos 1994; Schumacker & Lomax 2016). These include a check for the direction of squared multiple correlations, size and significance of the modification indices and the size of standardised residuals. These indicators vary in their estimation of what constitutes an error in a measurement model. Researchers have also stated that the model modification process should be an iterative process that is guided by theory (Hair et al. 2014; Schumacker & Lomax 2016; Reisinger & Mavondo 2007). Hair et al. (2014) state that standardised residuals returning values greater than “4.0” shows an unacceptable degree of error as it relates to a significant level of “0.001”. These guidelines were followed in model modification.

Model modification and re-specification are done to develop a model that is statistically good and theoretically sound. Therefore, after further analysis, the present study modified the initial implied relationships by removing the paths with low standardised regression weights and the non-significant paths. The removed paths include:

- A direct path between essential conditions and destination brand satisfaction
- A direct path between attractive conditions and destination brand satisfaction
- A direct path between appealing conditions and destination brand loyalty
- A direct path between destination brand awareness and destination brand satisfaction
- A direct path between destination brand quality and destination brand loyalty

These paths showed low standardised regression weights (as shown in Figure 7.2) in the initial model. Essential conditions and Attractive conditions to destination brand satisfaction showed an estimate of -0.09 and 0.07 respectively. Similarly, Appealing conditions and destination brand quality to destination brand loyalty both had -0.01 estimates. Destination brand awareness to destination brand satisfaction had 0.01. Additionally, the paths were also statistically non-significant (as shown in Table 7.5); with Essential conditions and Attractive conditions to destination brand satisfaction showing 0.08 and 0.83 respectively. Appealing

conditions and destination brand quality to destination brand loyalty showed 0.73 and 0.83 respectively, whereas destination brand awareness to destination brand satisfaction showed 0.79. Hence, these paths were removed.

A re-specified model was thus produced, which is presented in Figure 7.3 below.

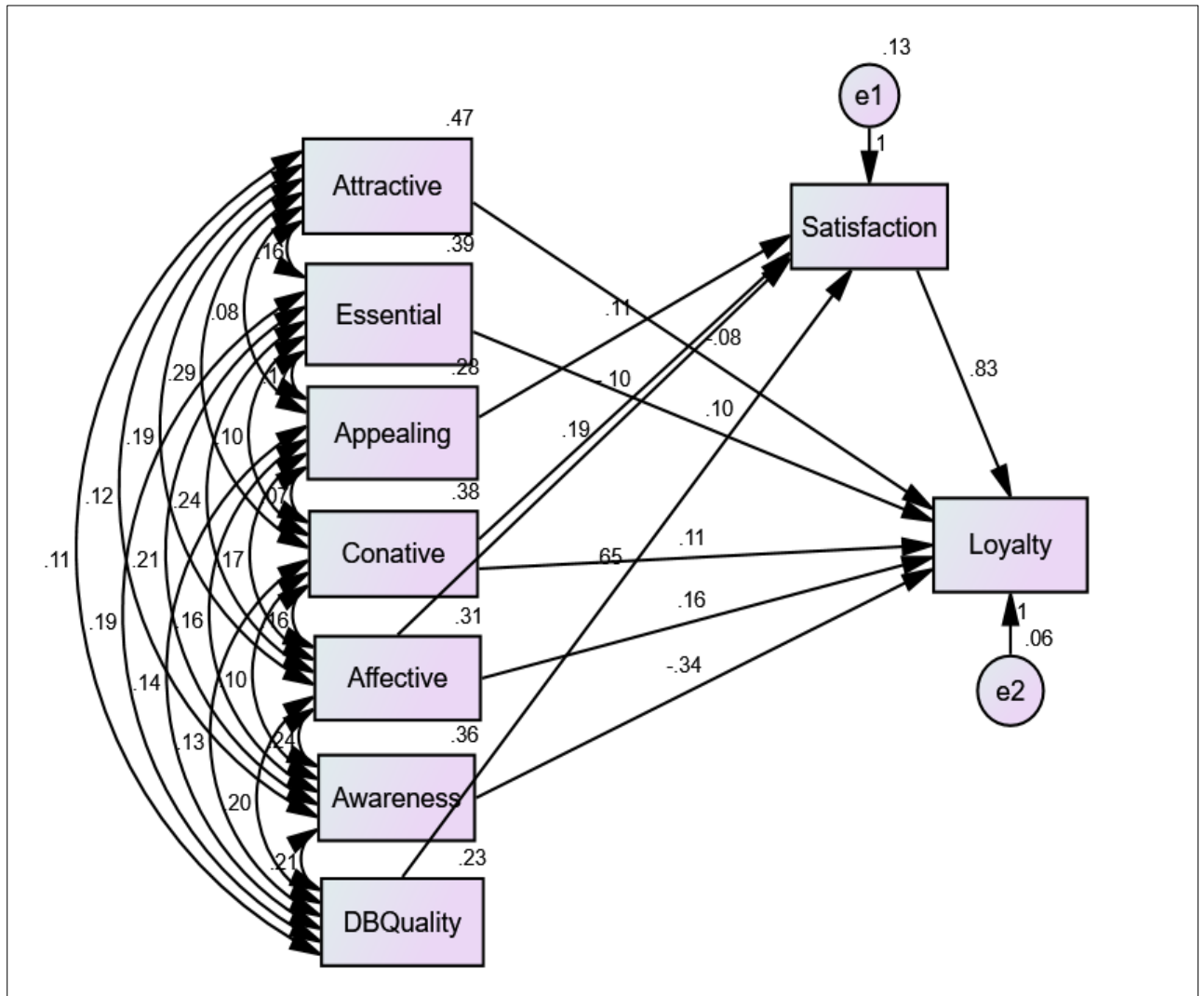


Figure 7.3: Re-specified model for medical tourism

Table 7.6: Re-specified model fit indices for medical tourism

X^2	df	X^2/df	GFI	CFI	NFI	RMR	$RMSEA$	P
5.073	5	1.015	.99	1.000	.99	.003	.006	.407

The table (Table 7.7) presents the regression weights for the re-specified model and shows that all 10 paths are statistically significant. The regression weights indicate the nature (either

negative or positive) of the relationships, and the strength (either weak or strong) of these relationships among the variables.

Table 7.7: Regression weights for Re-specified model

<i>From</i>	<i>To</i>	<i>Estimate</i>	<i>S.E.</i>	<i>t-statistics</i>	<i>P</i>
Appealing conditions of cognitive image	Destination brand satisfaction	.108	.041	2.607	.009**
Conative image	Destination brand satisfaction	-.096	.032	-3.037	.002**
Affective image	Destination brand satisfaction	.186	.049	3.838	.000***
Destination brand quality	Destination brand satisfaction	.651	.054	11.960	.000***
Attractive conditions of cognitive image	Destination brand loyalty	-.085	.025	-3.352	.000***
Essential conditions of cognitive image	Destination brand loyalty	.098	.027	3.670	.000***
Conative image	Destination brand loyalty	.108	.027	3.980	.000***
Affective image	Destination brand loyalty	.155	.040	3.915	.000***
Destination brand awareness	Destination brand loyalty	-.340	.030	-11.514	.000***
Destination brand satisfaction	Destination brand loyalty	.830	.029	28.393	.000***

Table 7.5 and figure 7.7 projects a clear picture of the size and significance of the tested paths. The next section will calculate and interpret the direct and indirect effects between the constructs as highlighted by the structural equation model.

7.3 Interpretation

This section provides a systematic construct by construct approach to interpret the findings arising from the re-specified model. Three destination brand image constructs, i.e. Cognitive, Affective and Conative image are discussed, with their influence on both destination brand satisfaction and loyalty presented. Next is the interpretation of the impact of destination brand awareness and quality on both destination brand satisfaction and loyalty. Lastly, the impact of destination brand satisfaction on loyalty is interpreted.

7.3.1 Destination brand Image

The image of a destination explains the association between medical tourists perceived image of a destination and how it might influence their satisfaction and post-purchase behaviour. Three categories of destination brand image (cognitive, affective and conative) were tested for this study. A rationale for either support or lack of support for related hypotheses is discussed, with the statistical significance and impact size presented.

7.3.1.1 Cognitive image

Cognitive image of a destination explains the extent of knowledge or belief individuals have of a particular tourism destination (King, Chen & Funk 2015; Stylos et al. 2016) and this associated knowledge may or may not be derived from the previous visit to a tourism destination (Pike 2008). The present study categorised cognitive image into three; Essential, attractive, and appealing conditions. Tourists that adopt essential conditions of a cognitive image are likely to have basic knowledge about the destination such as safety, accommodation and accessibility. It is posited that these tourists are more likely to revisit or recommend the destination to others in future. Therefore, medical tourists' view of the essential conditions of a destination is positively associated with loyalty because individuals that have a positive view of a destination will likely recommend other or revisit in the future if the need arises. The path from essential conditions to destination brand loyalty returned a p-value of .000 showing a significant effect. **Hence, H1b is supported, that medical tourists' view of essential conditions of a destination is positively associated with their loyalty towards the destination.** The path from essential condition to destination brand satisfaction was non-significant.

Medical tourists that adopt attractive conditions of a cognitive image are likely to be knowledgeable about the amenities and the situation of the destination. It is posited that these tourists are more likely to revisit or recommend the destination to others in future. Hence, medical tourists' view of the attractive conditions of a destination is positively associated with loyalty as individuals that have a positive view of a destination will likely recommend other or revisit in the future if the need arises. Although the path from attractive conditions to destination brand loyalty returned a p-value of .000 showing a significant effect, the estimate showed a negative effect. Hence, H1d is not supported, that medical tourists' view of attractive conditions of a destination is positively associated with their loyalty towards the destination.

Individuals that adopt appealing conditions of a cognitive image are likely to be aware of the different attractions the destination present such as sightseeing, entertainment and shopping opportunities. It is posited that these tourists are more likely to be satisfied with the medical services the destination offers. Hence, it was posited that medical tourists' view of the appealing conditions of a destination is positively associated with their overall satisfaction of the services received from the destination. The path from appealing conditions to destination brand satisfaction returned a p-value of .009 showing a significant effect. **Therefore, H1e is supported, that medical tourists' view of appealing conditions of a destination is positively associated with their satisfaction of the destination.**

7.3.1.2 Affective image

Medical tourists who adopt affective image towards a destination, which reflect their feelings or emotional response towards the destination (Chen & Phou 2013; Song, Kim & Yim 2017) are likely to be satisfied with the medical services the destination offers. Hence, it was posited that medical tourists' affective image of a destination is positively associated with their overall satisfaction of the services received from the destination. The path from affective image to destination brand satisfaction returned a p-value of .000 showing a significant effect. **Therefore, H1g is supported, that medical tourists' affective image of a destination is positively associated with their satisfaction of the destination.**

The result also reveals that medical tourists who adopt affective image towards a destination are more likely to revisit or recommend the destination to others in future. Therefore, medical tourists' affective image of a destination is positively associated with their loyalty towards the destination. The path from affective image to destination brand loyalty returned a p-value of .000 showing a significant effect. **Hence, H1h is supported, that medical tourists' affective image of a destination is positively associated with their loyalty towards the destination.**

7.3.1.3 Conative image

Medical tourists with high conative image towards a destination are more likely to be satisfied with the destination because this component reflects their active consideration of the destination (Gartner 1994; Stylos et al. 2016). These tourists would like to experience a destination that develops an ideal and desired future for them. Hence, it is logical to hypothesise

that the influence of conative image on satisfaction will be positively significant. The path from conative image to destination brand satisfaction returned a p-value of .002 showing a significant effect, but the estimates returned a negative effect. Therefore, H1j is not supported, that medical tourist conative image of a destination is positively associated with their satisfaction of the destination.

It is also logical to assume that medical tourists with a conative image view of a destination will likely revisit or recommend the destination to others in future. Therefore, it is hypothesised that medical tourists' conative image of a destination is positively associated with their loyalty towards the destination. The path from conative image to destination brand loyalty returned a p-value of .000 showing a significant effect. **Hence, H1k is supported, that medical tourists' conative image of a destination is positively associated with their loyalty towards the destination.**

7.3.2 Destination brand awareness

This section examines medical tourists' awareness of a destination and how it might influence their satisfaction and post-purchase behaviour. A rationale for either support or lack of support for related hypotheses is discussed, with the statistical significance and impact size presented.

Medical tourists that are aware of the destination offerings and services are more likely to be satisfied as the destination tends to have a strong presence in their mind. These medical tourists can recognise or recall any aspect of the services the destination offer (Im et al. 2012; Dwivedi et al. 2016), which can affect their future decisions. Hence, it is logical to assume that medical tourists with a positive perception of the destination will likely revisit or recommend the destination to others in future. Therefore, it is hypothesised that destination awareness is positively associated with medical tourists' loyalty towards the destination. Although the path from destination brand awareness to destination brand loyalty returned a p-value of .000 showing a significant effect, the estimates show a negative effect. Hence, H2b is not supported, that destination brand awareness is positively associated with destination brand loyalty

7.3.3 Destination brand quality

The destination quality explains the association between the quality of medical services received in a destination and how it might influence medical tourists' satisfaction and post-

purchase behaviour. A rationale for either support or lack of support for related hypotheses is discussed, with the statistical significance and impact size presented.

Previous literature on destination quality inform us that the construct is likely to have an impact on destination satisfaction (Boo, Busser & Baloglu 2009; Pike et al. 2010), where the needs of medical tourists are met or exceeded (Gartner & Ruzzier 2011), it would likely have a positive impact on satisfaction. With the above consideration in mind, it is logical to hypothesise that destination brand quality is positively associated with satisfaction. The path from destination brand quality to satisfaction returned a p-value of .000 showing a significant effect. **Therefore, H3a is supported, that destination brand quality is positively associated with their satisfaction of the destination.**

7.3.4 Destination brand satisfaction

Destination satisfaction explains the overall satisfaction of services that medical tourists received from a destination. This study discussed the rationale for support or lack of support on the significant correlation between destination satisfaction and medical tourists' post-purchase behaviour.

Previous literature on destination satisfaction inform us that the construct is likely to have an impact on destination loyalty (Kim 2018; Nam, Ekinci & Whyatt 2011; Altunel & Erkut 2015), where the medical tourists respond positively to the services they have received from the destination (San Martín, Herrero & García de los Salmones 2019), it would likely have a positive impact on their loyalty towards the destination. With the above consideration in mind, it is logical to hypothesise that destination satisfaction is positively associated with loyalty. The path from destination satisfaction to loyalty returned a p-value of .000 showing a significant effect. **Hence, H4a is supported, that destination brand satisfaction is positively associated with destination brand loyalty.**

7.4 Direct and indirect effects

The structural model showed the direct and indirect effects influencing both destination brand satisfaction and loyalty. The statistical significance of these effects on the constructs needs to be checked to see whether they adjust the support of any hypotheses. This section presents the

calculation and interpretation of the direct and indirect effects in the structural model. The bootstrapping method will be used for this calculation.

Shrout and Bolger (2002) suggested the use of bootstrapping procedure in determining the indirect effects of constructs. The bootstrap procedure is a more rigorous test based on statistical significance, and it offers a superior statistical power (Zhao, Lynch & Chen 2010; Kline 2016). Hence, a bootstrapping procedure was used in the present study, with bias-corrected using a default setting of a 95 per cent confidence interval in AMOS.

The impact of direct or indirect effects on the constructs is considered in this section. New terms used in this section include; Confidence Interval, Lower Bound and Upper Bound (UB). This section also presents the details of the regression coefficients for both direct and indirect effects and their associated confidence intervals for each construct.

7.4.1 Constructs affecting destination brand satisfaction

The results of this study show that destination brand satisfaction is directly affected by both medical tourists' essential and appealing conditions of cognitive image. Additionally, affective image, conative image and destination brand awareness also have a direct impact on destination brand satisfaction. Table 7.8 below presents the statistical significance, their associated confidence interval, and regression coefficients for the direct effects.

Table 7.8: Constructs affecting destination brand satisfaction

<i>Construct</i>	<i>Direct Effect (β)</i>	<i>Bias Corrected 95% Confidence Interval</i>		<i>p-value</i>
		<i>Lower Bond</i>	<i>Upper Bond</i>	
Appealing conditions	.108	.010	.199	.028
Affective image	.186	.063	.328	.011
Conative image	-.096	-.164	-.035	.007
Destination quality	.651	.526	.772	.001

The results show that appealing conditions of the cognitive image have a positive impact on destination brand satisfaction. The relationship is statistically significant ($p=.024$) and has a medium positive effect (.108). Hence, the direct effect confirms the hypothesis discussed in the earlier section.

It is evident that destination brand satisfaction is significantly impacted by medical tourists' affective image of a destination. The influence has a large effect of 0.186 and statistically significant ($p=.001$). Therefore, the direct effects confirm the hypothesis discussed in the earlier section.

The result also shows that medical tourists' conative image influences destination satisfaction. This relationship shows a negative direct effect of -0.096 and statistically significant ($p=.003$). Therefore, the hypothesis that the conative image is positively associated with destination brand satisfaction is not supported.

It is evident from the result that destination brand quality has a significant positive impact on destination brand satisfaction. The relationship is statistically significant ($p=.001$) and has a very large positive effect (.651). Hence, the direct effect confirms the hypothesis discussed in the earlier section.

7.4.2 Constructs affecting destination brand loyalty

In the present study, the dependent construct of destination brand loyalty is directly and indirectly affected by essential conditions of cognitive image, affective image, and conative image. Attractive conditions of cognitive image and destination brand awareness have a direct effect on destination brand loyalty. Whereas destination brand quality and attractive conditions of a cognitive image have only an indirect effect on destination brand loyalty through destination brand satisfaction. Table 7.9 below presents the statistical significance, their associated confidence interval, and regression coefficients for the direct and indirect effects.

Table 7.9: Constructs affecting destination brand loyalty

<i>Construct</i>	<i>Direct Effect (β)</i>	<i>Bias Corrected 95% Confidence Interval</i>		<i>p-value</i>	<i>Indirect Effect (β)</i>	<i>Bias Corrected 95% Confidence Interval</i>		<i>p-value</i>
		<i>Lower Bond</i>	<i>Upper Bond</i>			<i>Lower Bond</i>	<i>Upper Bond</i>	
Essential conditions	.099	.043	.156	.001	-	-	-	-
Attractive conditions	-.086	-.137	-.033	.003	-	-	-	-
Affective image	.157	.062	.243	.001	.152	.037	.278	.011
Conative image	.110	.047	.168	.001	-.079	-.138	-.026	.006
Destination brand awareness	-.337	-.397	-.275	.002	-	-	-	-
Destination brand satisfaction	.834	.761	.906	.001				
Appealing	-	-		-	.090	.008	.167	.028
Quality	-	-		-	.539	.411	.667	.001

Essential conditions of cognitive image, which considers medical tourists' basic knowledge of a destination influences destination brand loyalty. The direct effect between essential conditions and destination loyalty is positive but show a minor effect at 0.09. The direct effects on destination loyalty are also statistically significant at $p=.001$. Therefore, the direct effects confirm the hypothesis discussed in the earlier section.

The result shows that destination loyalty is impacted by medical tourists' perception of the affective image towards a destination. This relationship shows a positive large effect with direct effect at 0.15 and an indirect effect at 0.15. Additionally, both effects of an affective image on destination loyalty are statistically significant with direct ($p=.001$) and indirect ($p=.001$). Hence, the direct effects confirm the hypothesis discussed in the earlier section.

The result also shows that medical tourists' conative image influences destination loyalty. This relationship shows a positive minimum direct effect at 0.11 and statistically significant at ($p=.001$). The result also shows a negative but minimum indirect effect at -0.08, with statistical

significance ($p=.003$). Therefore, the direct effects confirm the hypothesis discussed in the earlier section.

It is evident from the result that attractive conditions of cognitive image influences destination brand loyalty. Although the impact presents a low negative effect of -0.08 , It is statistically significant with $p=.003$. As a result of the negative impact, the hypothesis that an attractive condition of the cognitive image is positively associated by destination brand loyalty is not supported.

The results also show that destination brand awareness influences destination brand loyalty. The impact presents a direct and large negative effect of -0.33 , with statistical significance of $p=.002$. As a result of the negative impact, the hypothesis that destination brand awareness is positively associated with destination brand loyalty is not supported.

The results show that destination brand loyalty is affected indirectly by medical tourists' appealing conditions through destination brand satisfaction. This effect has a minimum positive effect of 0.09 and statistically significant ($p=.024$). The direct path of appealing conditions of a cognitive image on destination brand loyalty showed a non-significant relationship and was removed from further analysis. **Therefore, the hypothesis that appealing conditions of the cognitive image are positively associated by destination brand loyalty is not supported.**

The results also show that destination brand quality has an indirect effect on destination brand loyalty through destination satisfaction, with a very large positive effect of 0.54 and statistically significant ($p=.001$). The direct path of destination brand quality on destination brand loyalty showed a non-significant relationship and was removed from further analysis. **Hence, the hypothesis that destination brand quality is positively associated by destination brand loyalty is not supported.**

The result also shows that destination brand satisfaction has a direct effect on destination brand loyalty. This relationship shows a very large positive effect of 0.83 and statistically significant at ($p=.001$). Therefore, the direct effects confirm the hypothesis discussed in the earlier section.

7.5 Overall mediating effects

Zhao, Lynch and Chen (2010) proposed four main categories to distinguish mediation effects. Firstly, complementary mediation which is a situation whereby both direct and indirect effects are significant and points towards the same direction. Secondly, competitive mediation which is established when direct and effect point towards the opposite direction while they both remain significant. The third is indirect-only mediation and is established when only the indirect effect is significant. Lastly, the direct-only non-mediation which is a case where only the direct effect is significant (Zhao, Lynch & Chen 2010). A mediation effect will not be established in the last category (direct-only non-mediation) as establishing a significant indirect effect is the only requirement for mediation (Zhao, Lynch & Chen 2010).

The present study performed a mediation test, to estimate the indirect effects of destination brand awareness and destination brand quality on post-purchase intention (destination brand loyalty). The conceptual model for this study considers destination brand satisfaction to mediate the relationship between; 1) destination brand awareness and destination brand loyalty, and 2) between destination brand quality and destination brand loyalty. Before determining the mediation results, the model fit was re-estimated to ensure the validity of the output. Table 7.10 below presents the model fit indices.

Table 7.10 Mediating effect model fit

<i>X²</i>	<i>df</i>	<i>X²/df</i>	<i>GFI</i>	<i>CFI</i>	<i>NFI</i>	<i>RMR</i>	<i>RMSEA</i>	<i>P</i>
4.976	3	1.659	.99	.99	.99	.003	.03	.174

The table above showed that the model fit was achieved, thus validating the results of the mediation effects. The results show that the relationship between destination brand quality and loyalty were mediated by destination brand satisfaction, whereas destination brand satisfaction does not mediate the relationship between destination brand awareness and loyalty. Table 7.11 provides the overall mediation result.

Table 7.11: Overall mediating effects

<i>Path</i>	<i>Direct effect (c)</i>	<i>Indirect effect (Mediation) (a x b)</i>
Awareness → Loyalty	-.337	.008
Quality → Loyalty	-.011	.539

The overall mediating effects are presented in the above table. Although the direct effect of awareness on loyalty shows a significantly large effect, this effect is negative. The indirect effect shows a positive but very low effect on awareness on Loyalty. As a result of the indirect effect, this indicates that the mediation effect of destination brand awareness on loyalty through satisfaction is not supported.

The results also show that the direct effect of destination brand quality on loyalty has a minimal effect, whereas the indirect path has a very large effect. Both direct effects present a negative effect whereas the indirect effects of destination quality on loyalty are positive, indicating a mediation effect of destination brand quality on loyalty through destination brand satisfaction.

7.5.1 Mediation effects using a bootstrap approach

A bootstrap test is necessary for testing the significance of an indirect effect and to confirm mediation (Zhao, Lynch & Chen 2010). Bootstrapping serves as a resampling procedure that allows for the stability of the parameter estimates to be assessed and reported accurately (Byrne 2016). The sample for bootstrapping for the present study is set at 2000 time with a bias-corrected set at a 95 per cent confidence interval. The result of the mediation effect using a bootstrapping approach is presented in Table 7.12 below.

Table 7.12 Mediation effect using a bootstrapping approach

<i>Hypotheses</i>	<i>Independent Variable</i>	<i>Path</i>	<i>Mediator</i>	<i>Path</i>	<i>Dependent Variable</i>	<i>Standardised indirect Estimates</i>	<i>Standard Error</i>	<i>Bias Corrected 95% Confidence Interval</i>		<i>P</i>
								<i>Lower Bond</i>	<i>Upper Bond</i>	
H4b	DBA	→	DBS	→	DBL	.008	.039	-.075	.079	.916
H4c	DBQ	→	DBS	→	DBL	.539	.064	.411	.667	.001

(Notes: DBS= Destination brand satisfaction; DBL= Destination brand loyalty; DBQ= Destination brand quality; DBA= Destination brand awareness)

The above table shows that mediating effect of destination brand satisfaction on awareness and loyalty is very low (0.008) and statistically non-significant (p=.916). Therefore, the hypothesis that destination brand satisfaction mediates the relationship between destination brand awareness and destination brand loyalty is not supported.

The results also show a large significant mediating effect (0.539) of destination brand satisfaction on quality and loyalty. The relationship is statistically significant where p=.001. **Hence, the hypothesis that destination brand satisfaction mediates the relationship between destination brand quality and destination brand loyalty is supported.**

7.6 Final model

The figure (Figure 7.4) below presents the final structural model and the significance of the paths tested. The model fit indices is also presented in Table 7.13.

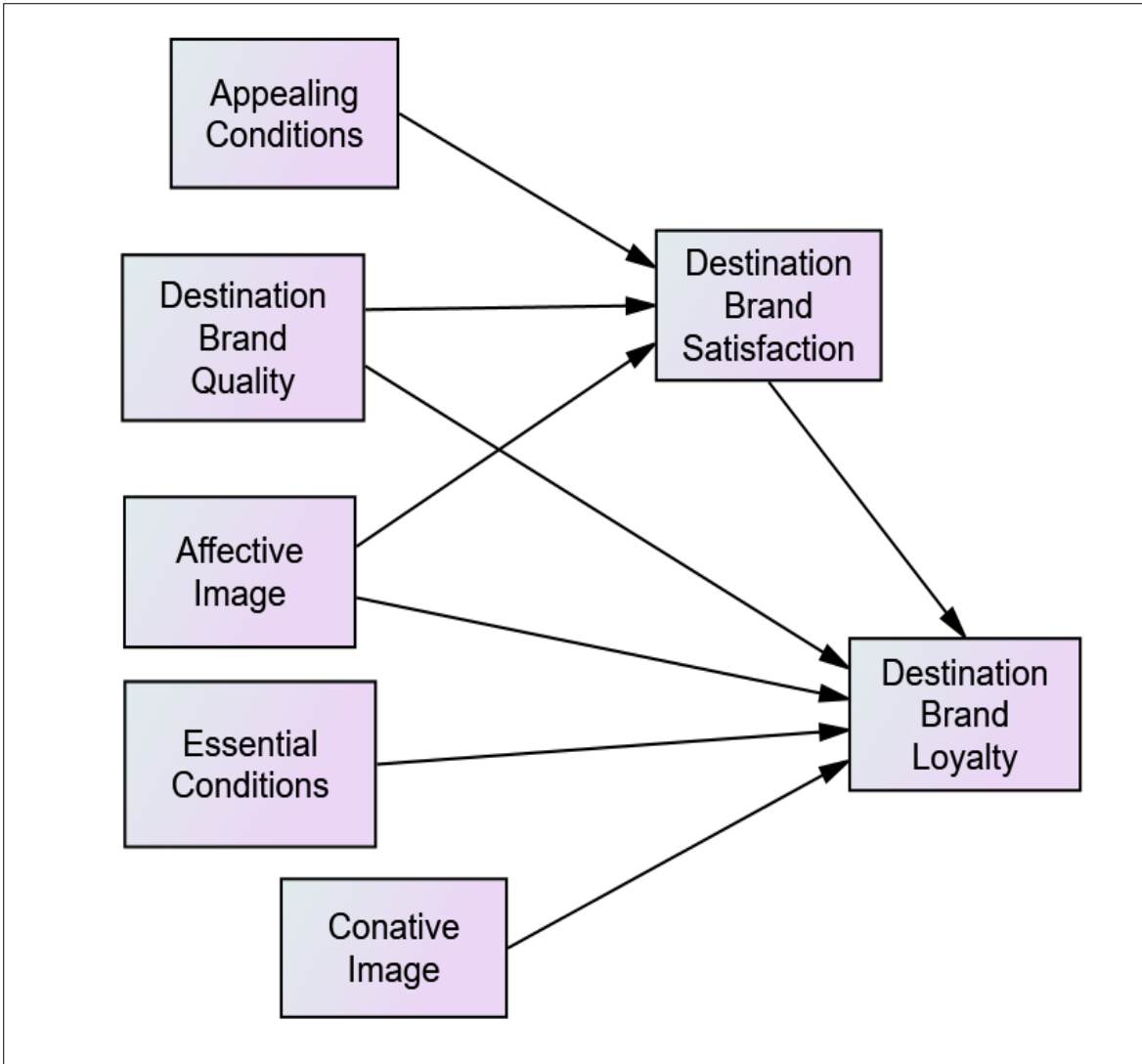


Figure 7.4: Final structural model for medical tourism

Table 7.13: Final structural model fit indices for medical tourism

<i>X²</i>	<i>df</i>	<i>X²/df</i>	<i>GFI</i>	<i>CFI</i>	<i>NFI</i>	<i>RMR</i>	<i>RMSEA</i>	<i>P</i>
5.018	4	1.254	.99	1.000	.99	.003	.02	.285

The table below shows that eight of the hypotheses were supported in the final model for this study. Some non-significant paths were removed from the model and further analysis during model re-specification, after the presented non-significant results at the initial model stage. Table 7.14 presents a summary of the outcome of all supported hypotheses.

Table 7.14 Hypotheses supported

<i>H</i>	<i>Regression Paths</i>	<i>B</i>	<i>P</i>	<i>Result</i>
H1b	Essential conditions of a cognitive image to destination brand loyalty	.099	.000	Supported
H1e	Appealing conditions of a cognitive image to destination brand satisfaction	.123	.003	Supported
H1g	Affective image to destination brand satisfaction	.150	.002	Supported
H1h	Affective image to destination brand loyalty	.157	.000	Supported
H1j	Conative image to destination brand loyalty	.110	.000	Supported
H3a	Destination brand quality to destination brand satisfaction	.618	.000	Supported
H4a	Destination brand satisfaction to destination brand loyalty	.834	.000	Supported
H4b	Destination brand satisfaction mediates between destination brand quality and loyalty	.516	.001	Supported

7.7 Chapter summary

A detailed step by step process that was adopted for data analysing and conducting SEM was presented in this chapter. An initial theoretical model derived from the composite variables was specified. Thereafter, an evaluation of the hypothesis was done to determine the support or lack of support for each hypothesis. Some paths were found to be non-significant and then removed from further analysis. The removed paths include 1) Essential conditions to Satisfaction, 2) Attractive conditions to Satisfaction, 3) Appealing conditions to Loyalty, 4) Awareness to Satisfaction, and 5) Quality to Loyalty.

Model re-specification was carried out in this chapter following the stipulated procedures from leading multivariate statisticians (Reisinger & Mavondo 2007; Byrne 2016; Diamantopoulos 1994; Schumacker & Lomax 2016). This process includes an examination of the standard residuals, modification indices, parameter estimates and the non-significant parts. In conjunction with relevant literature, a re-specified model created and tested. This section also presented the calculations and statistical significance of the direct and indirect effects to ensure it provides further evidence in support of the hypotheses. Lastly, the mediation effect was tested using bootstrapping to check for the significance of the indirect effects. The next chapter presents a discussion of the current results.

Chapter 8: Discussion, Implications and Conclusion

This research investigates the destination branding factors and their influence on the behaviour of medical tourists visiting Malaysia. This was done by extending Keller's CBBE model to include different components of the destination image. The previous chapter presented results of hypothesised relationships through Structural Equation Modelling (SEM). This chapter presents a detailed discussion of the research findings by providing insights on how the study objectives were achieved. Then, contributions to the knowledge are presented, followed by the limitations of the research, directions for future research and conclusion.

The present research was carried out to address the following objectives:

- To investigate the factors that influence medical tourists' preference for a medical tourism destination
- To investigate the influence of destination branding on medical tourists' decisions.
- To propose a destination branding model for medical tourism in Malaysia.

These objectives will assist in understanding the perception of medical tourists' visiting Malaysia for medical services. It will help inform policy makers of the factors that medical tourists consider the most important and their impact on post-purchase behaviour. Subsequent sections present a discussion of the objectives.

8.1 Factors influencing medical tourists' decision to choose a destination

The present study measured medical tourists' perception of five factors that influence their choice of a destination for medical tourism. These factors measure the motivations of medical tourists to choose a destination for medical tourism. The factors are: 1) cost of treatment, 2) reputation of physicians, 3) quality of medical services, 4) waiting time and 5) the accreditation of medical facilities (Zhang, Seo & Lee 2013; Smith & Forgione 2007; Alsharif, Labonte & Lu 2010).

Previous studies explored the factors that influence medical tourists' choice of destination (Hanefeld et al. 2015; Zhang, Seo & Lee 2013; Fisher & Sood 2014). Some studies categorised

these factors into push and pull factors, where pull factors focus on the supply-side, and push factors focus on the demand-side of the industry (Heung, Kucukusta & Song 2010; Smith & Forgione 2007). Others focused on the cross-cultural factors and operational issues (Yu & Ko 2012; Connell 2013). Although these factors play significant role in medical tourist choice of a destination, there appears to be no consensus as to which factors are categorised as more important when choosing a destination for medical tourism (Zhang, Seo & Lee 2013; Smith & Forgione 2007; Alsharif, Labonte & Lu 2010).

The present study examined the factors that influence medical tourists' decision to choose Malaysia as a destination for medical tourism. The five major factors mentioned above were synthesised from previous literature and examined to determine the extent of their impact on medical tourism in Malaysia specifically. The respondents were asked about their perception of these factors to determine the importance of these factors to medical tourists visiting Malaysia for medical tourism.

The results indicate that the cost of treatment is one of the biggest motivations for people to travel abroad for medical services. The finding is supported by previous studies which produced similar results on the choice of medical treatment abroad (Smith & Forgione 2007). Similarly, the results also show the reputation of physicians to be another important factor in medical tourists' choice of a destination. Extant literature on medical tourism supports this finding as well (Wongkit & McKercher 2013). Moreover, Alsharif, Labonte and Lu (2010) found that both the reputation of physicians and cost were among the most important factors that influence medical tourists' choice of a destination. Similarly, Hanefeld et al. (2015) argued that the expertise of physicians and cost are among the vital reasons people choose to travel abroad for medical treatment. Hence, it is imperative that the decision-makers provide adequate resources to educate and train medical practitioners in the relevant fields and ensure that the price of medical services remains reasonable. This will ensure that the medical tourism industry in Malaysia remain competitive in the region

The findings reveal that many medical tourists' also rate the quality of medical services in addition to the physicians' reputation. An agreement is found in a study by Zhang, Seo and Lee (2013), who argued that the quality of medical services is more important than the cost especially when the severity of the ailment is also a consideration. This highlights the importance of the availability of high-quality services, such as high-quality medical

infrastructures and state-of-the-art medical equipment. Therefore, the quality of medical and related services is considered as one of the important factors that influence medical tourists' choice of a destination.

Even though some previous studies highlight that accreditation of medical facilities and waiting time for major surgical procedures are vital reasons why people choose to travel abroad for medical tourism (Alsharif, Labonte & Lu 2010; Smith & Forgione 2007; Fisher & Sood 2014), this study results found both factors to be of least important to medical tourists' arriving in Malaysia. One of the reasons for considering waiting time as a less important factor might be because some of the medical tourists book appointments with prospective hospitals before their travel. As a result, they do not consider this factor more important than the cost or quality of services. The results confirm that medical tourists visiting Malaysia for medical tourism consider the accreditation of medical facilities and waiting time as less important than other factors such as cost, quality of medical services and reputation of physicians. This result will help inform medical tourism providers on the specific areas of the target and to ensure they focus more resources on specific areas of concern. This will also ensure that Malaysia remain competitive in the medical tourism industry in the region.

8.2 The Influence of destination branding on medical tourists' decision

This study examined the influence of destination branding on the decision of medical tourists by applying the consumer-based brand equity (CBBE) model to the medical tourism industry. The CBBE model has been applied to various tourism destinations to assist destination planners in building a unique brand. Pike and Bianchi (2016) argue that a close connection between a destination and the CBBE will help create a strong brand in the mind of consumers. The present study utilised the CBBE model developed by Keller (2001) to assess the impact on the medical tourism industry. After an extensive literature review, four factors were found to most likely influence the post-purchase behavioural intention (destination brand loyalty) of the medical tourists. These are destination brand image, destination brand awareness, destination brand quality, and destination brand satisfaction.

The following section presents a discussion on medical tourists' cognitive, affective and conative image and its influence on both satisfaction and loyalty. Secondly, a detailed

discussion on medical tourists' destination brand awareness, quality and satisfaction, and its impact on loyalty is presented. Lastly, the impact of destination brand satisfaction on destination brand loyalty is presented, as well as the mediating effects. These impacts are discussed in detail below.

8.2.1 Influence of Destination Brand Image (DBI) on Satisfaction and Loyalty

Various studies have shown that brand image can have a profound impact on the consumer satisfaction (Liu, Liu & Lin 2015; Boo, Busser & Baloglu 2009; Im et al. 2012) and loyalty (Chen & Phou 2013; Hallmann, Zehrer & Müller 2015; Kim 2018). Brand image has been applied in different studies as a viable factor that shed lights on the perception of tourists towards a destination (Prayag et al. 2017; Lee & Back 2008). The present study aimed to investigate the impact of destination brand image on medical tourists' satisfaction and loyalty towards the destination. Few studies have investigated the influence of brand image on medical tourism destination (Cham et al. 2016; Wu 2011; Cham, Lim & Aik 2014), which presents a gap in the body of knowledge for the present study to address.

This study examined whether the three destination brand image constructs influence medical tourists' satisfaction and loyalty towards the destination. Majority of the studies have utilized cognitive, affective and conative image for other tourism destinations (Stylos et al. 2016, 2017; King, Chen & Funk 2015), however, not for medical tourism destination. The original contribution to knowledge for the present study is provided by exploring the relationship of these image constructs with satisfaction and post-purchase behaviour of medical tourists. This section explains the sub-constructs of cognitive image (Essential, attractive and appealing conditions), affective and conative image, hypotheses justification, and interpretation.

8.2.1.1 Cognitive image to Satisfaction and Loyalty

Cognitive image is the sum of what an individual knew or believed about a tourism destination (Pike 2008). Individual tourist expresses their cognitive image through their belief reflecting evaluation of the perceived characteristics of a destination (Stylos et al. 2017; Chen & Phou 2013). This study tested three categories of cognitive image (Essential, attractive and appealing conditions) to determine their influence on medical tourists' satisfaction, as well as loyalty towards a particular destination. Even though some studies have analysed the influence of

cognitive image on tourism destinations, the influence on medical tourism destination has not been deeply explored. The present study intends to fill this gap in knowledge. These analyses are presented in subsequent sections.

8.2.1.1.1 Attractive conditions to satisfaction and loyalty

Individuals leaning towards attractive conditions place considerable emphasis on the reputation of the destination, political stability, and policies towards the natural environment (Chen & Phou 2013). A destination with strong attractive conditions is one that has a good reputation as a tourist destination, sustainable environmental policies and quality infrastructural developments. Medical tourists with strong attractive conditions tend to consider infrastructures and basic amenities as a necessity for the destination. Hence, medical tourists scoring high on attractive conditions are more likely to make their decisions based on their knowledge of the natural environment and infrastructural availability in the destination.

The present study hypothesised that medical tourists with high attractive perception are likely to recommend and revisit the destination in future. The rationale for this argument was that individuals with a strong perception of attractive conditions are likely to visit a destination with good reputation, infrastructures and political stability (Stylos et al. 2016). Therefore, they would likely revisit and recommend the destination. Additionally, it was also hypothesised that these medical tourists will likely be satisfied with the destination.

The investigation on the relationship between attractive conditions and destination brand satisfaction was not supported. Therefore, this research did not support H1c. This means that medical tourists with a high perception of attractive conditions would not necessarily be satisfied with the destination. Nonetheless, attractive conditions were found to have a significant negative effect on destination brand loyalty. Hence, H1d was also not supported. Even though a significant relationship exists between the constructs, it was an inverse relationship. This means that attractive minded medical tourists will most likely not revisit or recommend the destination in future.

These findings are somewhat consistent with past studies that applied cognitive image as a factor influencing tourists' perception of a destination (Stylos et al. 2017; 2016). Although there is a lack of empirical studies measuring the influence of attractive image specifically to brand satisfaction and loyalty, the items were combined in a cognitive image construct and

were found to be insignificant. In support of the result, Stylos et al. (2016) found that the availability of basic amenities and policies towards the natural environment will not likely lead to revisiting intentions.

This relationship shows the impact of cognitive image on brand loyalty. It explains that medical tourists' does not feel the need to recommend a destination or revisit because of its natural environment, basic amenities or infrastructures. However, the results did not refute the arguments from past studies that attractive conditions of a cognitive image are not necessarily associated with satisfaction and loyalty. A potential reason might be that medical tourists focused more on the satisfaction of medical services they received rather than leisure. With medical services as their main goal of the visit, it is logical to assume that they are less focused on the attractive conditions of the destination.

8.2.1.1.2 Essential conditions to satisfaction and loyalty

It was argued that medical tourists that possess essential conditions have basic knowledge about the destination. That will impact their satisfaction towards the destination, and likely influence their decision to revisit or recommend the destination to other in the future. For this reason, essential conditions of a cognitive image have been equated to availability of accommodation, as well as safety of the destination (King, Chen & Funk 2015; Stylos et al. 2017).

The present study hypothesised that medical tourists with a strong perception of essential condition towards a destination are likely to recommend and revisit the destination in future. The rationale for this argument was that medical tourists with basic knowledge about a destination can easily access the destination, feel comfortable and secured during their visit, hence, they are willing to revisit and recommend others to visit. Previous studies on cognitive image of a destination did not specifically measure the effects of essential conditions, however, items of the construct were included in a general cognitive image construct (Stylos et al. 2016; 2017; King, Chen & Funk 2015). Hence, there have been limited studies exploring the impact of essential conditions of cognitive image on destination brand loyalty. Also, it was hypothesised that these medical tourists will likely be satisfied with the destination.

The findings from the present study did not support H1a but provided support for H1b. Therefore, it was found that the essential conditions of a cognitive image have a positive influence on destination brand loyalty. However, this variable did not provide support for brand

satisfaction as hypothesised. This finding provides support for the argument that medical tourists with basic knowledge about a destination including a high perception of safety will likely revisit and recommend the destination in the future. However, the result shows that these medical tourists' might not necessarily be satisfied with the destination. The reason for this result might be as a result of medical tourists' perception of safety and availability of accommodation in a destination.

The results shed more lights on the impact of medical tourists' essential conditions on brand loyalty, as well as satisfaction, thereby informing decision-makers of the expectations and perception of medical tourists towards a destination. Medical tourism providers can use the cognitive image as a viable image component and be confident that medical tourists with a strong perception of essential conditions will likely recommend and revisit the destination. The knowledge from this result makes it easier for a destination to make informed decisions on the medical tourism industry.

8.2.1.1.3 Appealing to satisfaction and loyalty

Medical tourists that value the appealing conditions of the destination place emphasis on the leisure tourism aspect of the destination such as site seeing the area, cultural attractions and various shopping experiences (Stylos et al. 2016). Individuals with a high score for appealing conditions tend to consider leisure tourism as an important aspect of their visit (King, Chen & Funk 2015).

This study posited that medical tourists with a high perception of appealing conditions are likely to be satisfied with the destination. The reasoning behind this argument was that leisure minded tourists tend to have a strong connection with tourism attractions provided by a destination, and that will likely have an impact on their satisfaction of a destination. Previous studies on cognitive image of a destination did not specifically measure the effects of appealing conditions, rather it was included in a general cognitive image construct (Stylos et al. 2016, 2017; King, Chen & Funk 2015). Hence, there is limited knowledge on the impact of appealing conditions on destination brand satisfaction. Additionally, it was posited that these medical tourists are likely to recommend and revisit the destination in the future.

The findings show that appealing conditions of the cognitive image have no significant influence on brand loyalty. This means that medical tourists that view leisure tourism as a vital

part of their visit would not likely revisit or recommend the destination to others. Hence, H1f was not supported. However, appealing conditions of the cognitive image were found to have a significant positive effect on brand satisfaction. Therefore, H1e was supported. So, even though the significant impact between appealing conditions and brand loyalty was not found, the relationship between appealing conditions and satisfaction was found to be positive and significant. These results may provide medical tourism providers with a clear idea on the importance of appealing conditions and the part it plays in ensuring the satisfaction of medical tourist as well as return visits to the destination.

8.2.1.2 Affective image to Satisfaction and Loyalty

Medical tourists with an affective image of a destination tend to have a strong emotional response about their visit to the destination, such as the excitement, relaxation and the fun memories of the destination. Chiu, Zeng and Cheng (2016) defined affective image as emotions evoked by tourism destination, such as excitement, joy, pleasant. Past literatures has shown that affective minded tourists have a positive emotional response towards the destination (Zhang et al. 2014; Stylos et al. 2017; Faullant, Matzler & Mooradian 2011). Medical tourists with a high score on this variable feel that relaxation and excitement should be an important element of the visit.

The present study posited that medical tourists with a strong emotional response or feelings towards a destination are likely to be satisfied with the destination. It was also posited that these medical tourists are likely to recommend and revisit the destination in future. The rationale for this argument was that medical tourists that develop affective image would likely prefer a destination where their pursued benefit and motives are matched by their emotions towards the destination (King, Chen & Funk 2015; Stylos et al. 2016). Therefore, they would likely be satisfied as well as willing to recommend or revisit the destination in future.

The findings provide support for both H1g and H1h. Hence, it was found that affective image of a destination indeed has a positive influence on brand satisfaction. The result also found that affective image has a positive impact on brand loyalty. These results provide support for the argument that affective minded medical tourists are likely to be satisfied with a destination, as well as revisit and recommend the destination in future. Extant literature on the affective component of destination image supports the impact of the constructs on Satisfaction (Prayag,

Hosany & Odeh 2013; Chiu, Zeng & Cheng 2016; Grappi & Montanari 2011) and loyalty (Papadimitriou, Kaplanidou & Apostolopoulou 2018; Li et al. 2010; Zhang et al. 2014; Stylidis, Shani & Belhassen 2017). A recent study by Prayag et al. (2013) found that affective image components, such as joy, love and positive surprise have a significant influence on tourists' satisfaction. Similarly, Zhang et al. (2014) found tourists with strong emotional attachment towards a destination will likely revisit or recommend the destination to others.

These results show that satisfaction of medical tourist will improve as they develop a positive emotional perception towards the destination. These positive feelings towards a destination will likely influence medical tourists to revisit and recommend the destination to others. The findings also suggest the importance of affective image to medical tourists' satisfaction and loyalty towards a destination.

8.2.1.3 Conative image to Satisfaction and Loyalty

The conative image has been explained as individuals' active consideration of a particular location as a potential travel destination (Chen & Phou 2013). It was argued that the conative image represents medical tourists' subjective perception of a destination's features (Stylos et al. 2017). As a result, the conative image will impact their satisfaction towards the destination, and likely influence their decision to revisit or recommend the destination to others in the future.

This study hypothesised that medical tourists with a strong conative image are likely to recommend and revisit the destination in the future. It was also hypothesised that these medical tourists are likely to be satisfied with the destination. The rationale behind this assumption was that conative minded individuals tend to prefer a destination that will develop a desired and ideal future for them. Therefore, they are likely to be satisfied with the destination, and also willing to revisit and recommend the destination to others.

The findings provided support for H1k, that medical tourists' conative image of a destination is positively associated with destination brand loyalty. Past studies on the conative image of a destination found that it has a positive direct impact on tourists' decision to revisit and recommend a destination (Stylos et al. 2016). The findings suggest that the aspirations, dreams and visions of the medical tourists are very important and will drive their decision to revisit

and recommend the destination to others. However, H1j was not supported, which means that medical tourists' conative image does not have a positive impact on brand satisfaction.

8.2.2 Influence of Destination Brand Awareness on Satisfaction and Loyalty

Destination brand awareness is the strength of the destination in the mind of the consumer (Im et al. 2012). A significant number of studies show that brand awareness can have a profound effect on the perception of tourists towards a destination (Liu, Liu & Lin 2015; Chi, Yeh & Yang 2009; Im et al. 2012; Bianchi & Milberg 2017). Brand awareness has been used in several studies as a viable factor to measure tourists' destination satisfaction (Lemmetynen et al. 2016; Lai & Vinh 2013; Lee & Back 2008) and loyalty towards a destination (Alkhaldeh & Eneizan 2018; Chi, Yeh & Yang 2009; Hyun & Kim 2011). The present study sought to investigate the influence of brand awareness on medical tourists' satisfaction of a destination and their post-purchase behaviour. Most of the literatures has focused on leisure tourism (Su & Chang 2018; Hyun & Kim 2011; Yang, Liu & Li 2015) which presents a gap in the body of knowledge that this study aimed to address.

Past literature has been inconsistent on the impact of destination awareness on loyalty. A study by Kim, Jin-Sun and Kim (2008) found that awareness as a constructs does not influence loyalty, but when combined with the association, it has a significant influence on loyalty. Some studies argue that awareness significantly influences tourists' decision to revisit and recommend a destination (Lu, Gursoy & Lu 2015; Altaf et al. 2017; Yang, Liu & Li 2015; Su & Chang 2018), whereas others argue that there is no significant influence of awareness and loyalty (Im et al. 2012; Bianchi & Milberg 2017; Liu, Liu & Lin 2015; Hyun & Kim 2011). Moreover, few studies argued that awareness has no significant impact on satisfaction (Lee & Back 2008; Esch et al. 2006), while other studies argued that tourists' with a strong awareness of the destination are assumed to possess the ability to identify, recognise and recall the destination under different situations (Dwivedi et al. 2016; Hsu & Cai 2009). As a result, awareness has been included as one of the important variables that might impact medical tourists' satisfaction, as well as their willingness to revisit and recommend others to the destination.

This study, therefore, posited that medical tourists with strong destination awareness would likely be satisfied with the services of the destination. Additionally, these medical tourists would likely recommend or revisit the destination in future. With inconsistency in past studies, the assumption was that awareness minded consumers can recall and recognise the important characteristics of a destination. Hence, it might have an impact on their satisfaction and might influence their decision to revisit and recommend others.

The findings did not provide support for H2a, that medical tourists' awareness of a destination has no impact on destination satisfaction. This result was supported by past literatures on destination awareness (Lai & Vinh 2013; Lee & Back 2008). Similarly, H2b was also not supported, which means that awareness was not found to have a significant effect on loyalty. Even though this finding is inconsistent with some studies (Su & Chang 2018; Hsu, Oh & Assaf 2012), it is in line with the results of other empirical studies. For instance, Bianchi and Milberg (2017) found no significant relationship between awareness and loyalty. Some other studies (Liu, Liu & Lin 2015; Hyun & Kim 2011; Bianchi & Milberg 2017) on awareness found no direct relationship with loyalty. This result indicates a lack of consistency in the results of the relationship between awareness and loyalty.

8.2.3 Influence of Destination Brand Quality on Satisfaction and Loyalty

There is considerable research demonstrating the influence of destination brand quality on destination brand satisfaction (Chen & Myagmarsuren 2010; Žabkar, Brenčič & Dmitrović 2010; Chen & Tsai 2007) and destination brand loyalty (Konecnik & Gartner 2007; Chen & Chen 2010; Allameh et al. 2015). Although a significant number of studies that have shown the impact of this relationship on leisure and other tourist destination, a few studies has focused on medical tourism destination (Chang, Chen & Lan 2013; Cham et al. 2016; Cham, Lim & Aik 2014). The present study investigated the influence of brand quality on medical tourists' satisfaction and loyalty towards a destination.

Extant literature argued that the quality of a destination will likely have an impact on brand satisfaction, and loyalty towards a destination. The reason for these arguments is that individuals with a high view of a destination quality would feel that their needs are met or exceeded during their visit to the destination. Hence, it is only logical to assume that these

individuals will be satisfied with the destination. Similarly, these individuals will be inclined to revisit and recommend the destination to others in the future.

The present study therefore, hypothesised that medical tourists with a high perception of destination quality would likely be satisfied with the services of the destination (Cham, Lim & Aik 2014). Additionally, these medical tourists would likely recommend and visit the destination in future (Wu 2011). The rationale behind these assumptions was that tourists with a strong view on the quality of infrastructures, facilities, and accommodation would most likely base their decision on destination quality.

The findings did not provide support for H3b, that medical tourists' destination brand quality is positively associated with destination brand loyalty. Past studies have mixed results for the relationship between quality and loyalty (Alrubaiee & Alkaa'ida 2011; Cham et al. 2016; Chen & Myagmarsuren 2010; Allameh et al. 2015), hence it's somewhat inconsistent. Several studies have supported the finding that quality is not positively associated with intention to revisit and willingness to recommend to others (Chen & Funk 2010; Su & Chang 2018; Pike & Bianchi 2016; Myagmarsuren & Chen 2011). A study by Bianchi, Pike and Lings (2014) compared three different countries and found the relationship between quality and loyalty to be insignificant in all three countries. On the contrary, few studies found this relationship to be significant (Wu & Li 2017; Yang, Liu & Li 2015; Bianchi & Pike 2011; Boo, Busser & Baloglu 2009; San Martín, Herrero & García de los Salmones 2019), thereby implying that the inconsistency is as a result of different situations. Thus, the present study shows that there is no direct relationship between medical tourists' perception of quality and loyalty to the destination. This means that high quality of medical facilities and infrastructures would not directly incline medical tourists to revisit or recommend the destination to others.

Moreover, the findings provided support for H3a, that medical tourists' view of destination quality is positively associated with their satisfaction of a destination. This result is in agreement with previous studies that found similar results on destination brand quality (Žabkar, Brenčić & Dmitrović 2010; Wu & Li 2017; Myagmarsuren & Chen 2011; Herrero et al. 2017). A recent study by San Martín, Herrero and García de los Salmones (2019) found that a positive significant relationship exists between destination quality and satisfaction for both national and international tourists.

These results, therefore, show that medical tourists are more inclined to be satisfied with a destination where they experienced superior medical services. This also means that destinations that provide a pleasant medical experience will have more satisfied medical tourists. This informs decision-makers in the industry that the provision of quality services is an important element in keeping medical tourists satisfied.

8.2.4 Significant influence of Destination Brand Satisfaction on Loyalty

A range of studies has shown the enormous impact of destination brand satisfaction on loyalty (Engeset & Elvekrok 2015; Chen & Tsai 2007; Ghafari, Ranjbarian & Fathi 2017). Several studies have used satisfaction as a viable factor to shed light on revisit intentions and willingness to recommend a destination to others (Dedeoğlu et al. 2019; Altunel & Erkut 2015; Kim 2018). This study sought to investigate the impact of destination brand satisfaction on loyalty. Few studies have investigated the impact of satisfaction on medical tourism industry (Cham et al. 2016; Wu 2011; Cham, Lim & Aik 2014), which left a gap in knowledge that this study intended to address.

Past studies have argued that the satisfaction of a destination will likely have an impact on tourists' loyalty towards a destination. The rationale behind this was that tourists with a high view of a destination satisfaction would feel very satisfied with their visit to the destination which will trigger a revisit intention and willingness to recommend to others. Hence, it is only logical to assume that satisfied medical tourists' will be inclined to revisit and recommend the destination to others in the future.

This study hypothesised that medical tourists' that are satisfied with the destination and more inclined to revisit and recommend the destination in future. The reasoning behind this argument was that these individuals feel good about their choice and are satisfied with their decision to visit the destination. Hence, it is logical to assume that they would be inclined to revisit the destination or recommend to others to visit. This assumption was also supported by extant literature on brand satisfaction (Kim 2018; Dedeoğlu et al. 2019; Chen & Phou 2013; Prayag, Hosany & Odeh 2013).

The findings provide support for H4a, where it was found that medical tourists with a strong view of brand satisfaction have a significant positive influence on brand loyalty. This means that medical tourists satisfied with their choice to visit a destination will likely revisit or

recommend others in future. This result was supported by San Martín, Herrero and García de los Salmones (2019), who found that destination satisfaction acts as a strong driver of loyalty in terms of tourists' intention to revisit and willingness to recommend the destinations to others. On a similar note, extant literature found that satisfied tourists are more likely to say positive things about the destination to future visitors (Ramseook-Munhurrin, Seebaluck & Naidoo 2015; Kim 2018; Chiu, Zeng & Cheng 2016). This thinking of tourists' satisfaction and loyalty explains the reason for the significant relationship between them. It could be that medical tourists' feel that treatment is an important reason for their visit, as a result, the satisfaction of that choice represents their willingness to make return visits and recommend others.

These results shed light on the influence of medical tourists' satisfaction on destination brand loyalty and inform medical tourism organisations about the importance of satisfying the needs of medical tourists. Destination brand satisfaction can be utilised by decision-makers as a viable construct and be confident that if a significant number of medical tourists are satisfied, they will revisit and recommend others in the future. This will help medical practitioners to make more informed decisions and reallocate resources to satisfy medical tourists.

8.2.5 Mediating role of Destination Brand Satisfaction on Loyalty

In addition to investigating the effects of brand satisfaction, the research model took cognisance of extant literature that posits on brand quality and its effects on post-purchase intentions. Several studies have used destination brand satisfaction as a mediating variable in the relationship between quality and loyalty (Kurniawati & Prihandono 2019; Keni, Oktora & Wilson 2019; Cham, Lim & Aik 2014). These studies have been applied in different sectors including retail, banking, hospitality, and leisure tourism destinations (Pivac et al. 2019; Makanyeza & Chikazhe 2017; Bloemer, de Ruyter & Peeters 1998; Vinh & Phuong 2017; Kim 2011), with few studies focusing on the medical tourism industry (Cham, Lim & Aik 2014; Alrubaiee & Alkaa'ida 2011; Aliman & Mohamad 2016).

The present study argued that destination brand satisfaction will mediate the relationship between destination quality and loyalty. The result found support for H4b, that satisfaction mediates the relationship between quality and medical tourists' revisit intention and willingness to recommend to others. Although the result showed no direct path between brand quality and loyalty, an indirect path was established through brand satisfaction. Past studies

have supported similar results on an indirect effect of destination satisfaction on quality and loyalty (Pivac et al. 2019; Cham, Lim & Aik 2014; Vinh & Phuong 2017). A recent study by Kurniawati and Prihandono (2019) found an indirect effect of destination quality on loyalty via satisfaction. Similarly, Keni, Oktora and Wilson (2019) found that satisfaction mediates the relationship between destination quality and tourists revisit intentions and willingness to recommend to others.

This result shows the importance of satisfaction in determining medical tourists' revisit intentions and ability to recommend to others. With medical tourists satisfied with the destination as a result of destination quality, they will be more likely to revisit and recommend others. Hence, to encourage revisit and recommendation of a medical tourism destination, medical tourism organization should not only depend on the quality of medical infrastructures, amenities and services, but on ensuring that medical tourists are satisfied with the destination. This is because medical tourists with a high perception of quality will likely be satisfied with the destination, which will lead to revisiting intentions and willingness to recommend to others. Therefore, it is important for decision-makers to improve the quality of medical tourists' experience, so that they can feel satisfied, which will lead to revisiting and future recommendation.

8.3 Proposed destination branding model of medical tourism

The research model developed for this study investigated the research objectives by linking the effects of destination branding factors to medical tourists' satisfaction and post-purchase behaviour, introducing destination brand satisfaction as a mediating construct and also possessing a direct effect on post-purchase behaviour. Overall, eight paths were found to be positively significant and shown in the summary model in Figure 8.1. Following extant literature, this research began with 17 hypotheses. A structural equation modelling technique was used to assess the relationship between the variables to determine a destination branding model applicable to the medical tourism industry.

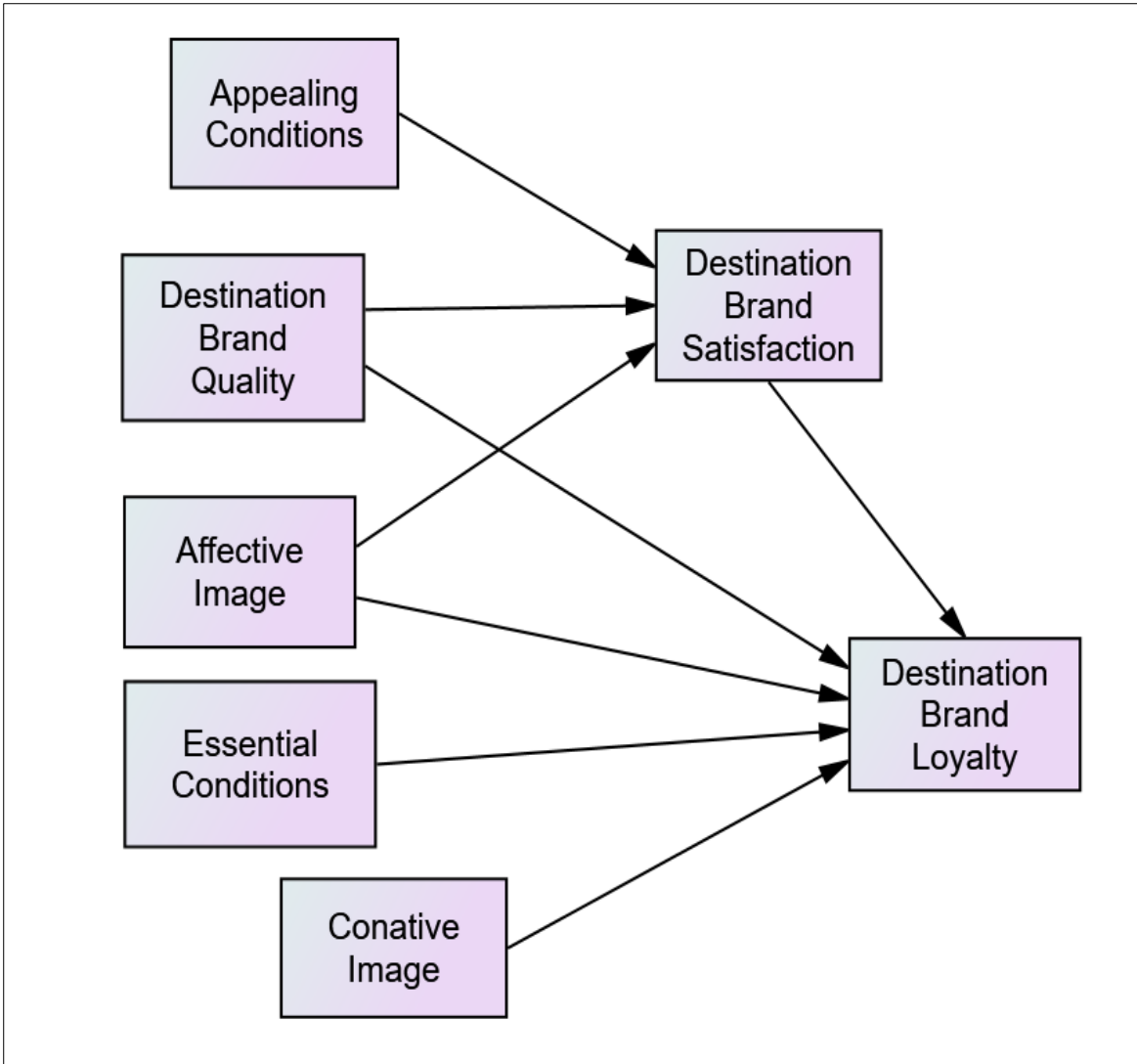


Figure 8.1 Proposed destination branding model for medical tourism

This result found a direct relationship between the essential conditions of cognitive image and loyalty. The next significant part was between affective image and loyalty, and then between conative image and loyalty. This research found that for medical tourists’ to be satisfied with a destination for medical services, pleasant and superior quality medical experience, positive emotional response, excitement and joy about the destination have to be increased with less emphasis on the leisure aspect of the destination. Medical tourists’ satisfaction was found to be significant to loyalty towards a destination. Moreover, Destination brand satisfaction plays a mediating role in the link to positively influence medical tourists’ revisit intentions and willingness to recommend to others through destination brand quality.

8.4 Contributions to study

8.4.1 Theoretical contribution

Numerous contributions can be derived from the findings of this study. Firstly, this study developed a destination branding model for medical tourism. The developed model explicates the role of destination branding factors (destination brand image, awareness, quality, and satisfaction) on the decisions of medical tourists to revisit and recommend the destination in future. Past destination branding models have focused on products branding and leisure tourism, while past medical tourism models have focused on factors that influence or motivate medical tourists' choice of a destination for medical services. Therefore, the need for an integrated model that; 1) gauges the perception of medical tourists towards a destination, 2) measures their satisfaction of a destination, and 3) determines their intention to revisit and willingness to recommend others was felt and satisfied.

This study aimed to develop a destination branding model for medical tourism organization to understand the perception of medical tourists and how to better market the destination. The present study contributes to medical tourism literature by extending Keller (2001) CBBE model to medical tourism destination. The major outputs of the study, (destination brand satisfaction and loyalty), reflect the scope to which destination branding could be extended. This new model is the first destination branding model for medical tourism and thus, provides destination branding literature a new segment that captures the perception of medical tourists towards a destination. Hence, this study provides a basis for future studies to adopt the empirically validated scales in this study for determining medical tourists' perception in various regions and how to effectively market a medical tourism destination.

The second contribution of this study is the extension of the image component of Keller's CBBE model. Keller's model categorised image as a single component and this study has applied three different components of image to extend the model. The present study identified three different destination brand image (cognitive, affective and conative image) constructs and two sub-constructs of the cognitive image that influence both destination brand satisfaction and loyalty. Specifically, medical tourists with a strong affective image towards a destination are positively inclined to be satisfied with the medical services provided. It also clearly shows that

medical tourists who are emotionally attached to the destination are likely to revisit and recommend others to the destination for medical services.

The two sub-constructs of the cognitive image were found to have an impact on satisfaction and loyalty. Specifically, medical tourists with strong appealing conditions are likely to be satisfied with the destination. Whereas essential minded medical tourists are willing to revisit and recommend the destination in future. This shows partial support of medical tourists' cognitive image effect on satisfaction and loyalty. Furthermore, the study found that medical tourists with a strong conative image are likely to revisit and recommend the destination to others. This study is the first to apply different constructs of destination brand image to medical tourism and test its effects on satisfaction and loyalty, thus contributing to knowledge in destination branding.

Another contribution is that satisfaction was found to have a significant positive effect on loyalty. Specifically, medical tourist that are satisfied with a destination, are likely to revisit and recommend others in future. Additionally, the findings showed that satisfaction can serve as a mediating factor in testing the relationship between destination branding constructs and loyalty. The findings showed an indirect relationship between destination brand quality and loyalty through satisfaction. The result also showed that appealing conditions of a cognitive image have an indirect effect on loyalty through satisfaction. With limited studies on the mediating effects of satisfaction concerning medical tourism, this finding adds to this body of literature.

The next contribution is that destination brand awareness was found to not affect both satisfaction and loyalty. Although awareness has been categorised by extant literature as a vital part and necessary first step in destination evaluation (Gartner & Ruzzier 2011; Boo, Busser & Baloglu 2009; Konecnik & Gartner 2007), its impact has largely being tested on destination image. The findings from this study showed that awareness of a destination would likely not have an impact on medical tourist satisfaction and loyalty (directly and indirectly). Hence, future research needs to investigate more on these findings in different regions and context.

8.4.2 Managerial implications

The findings from the present study provide useful information to medical tourism providers and decision-makers. The findings suggest that medical tourism providers and destination

marketers should develop promotional and marketing campaigns. With the study findings showing the importance of destination quality and few sub-constructs of image on medical tourists' satisfaction and loyalty, promotional campaigns should emphasise on the vital elements and distinct characteristics of Malaysia as a medical tourism destination. Specifically, worldwide promotional activities by medical providers in Malaysia should be supported and collaborated by the Malaysian Tourism Board as a joint campaign. The state-of-the-art medical facilities shows the quality of services potential medical tourists will experience in Malaysia as well as attractive leisure that the country possess. Additionally, the relatively affordable cost of treatment should be emphasised to ensure that medical tourists are well informed while deciding to visit Malaysia. The awareness of these unique qualities is vital to differentiate Malaysia from other medical tourism destinations. Hence, quality medical facilities, creating awareness of the destination offerings to a larger audience will likely attract medical tourists to Malaysia and encourage satisfied medical tourists to revisit and recommend Malaysia to others.

It is also vital for decision-makers to carefully consider the strategic aim of destination branding and how to manage and implement it within the destination. Reflecting on the results of the present study, effective marketing strategies should increase medical tourists' satisfaction of a destination or have an impact on their revisit intentions and willingness to recommend. Particularly, the present study show that affective image will likely influence both medical tourists' satisfaction and willingness to revisit and recommend other to Malaysia. Therefore, decision-makers should ensure that program and activities that help the medical tourists to relax and emotionally respond positively are provided as they are inclined to be satisfied with such activities. It is reasonable for different foreign markets to employ different marketing strategies, but all strategies should be prepared in consideration of the medical tourists' intention to revisit and willingness to recommend others to the destination.

The findings from this study can also provide medical tourism providers with insight into destination satisfaction. In particular, by investigating medical tourists' perception of Malaysia, medical tourism providers will be able to build a unique destination that results in revisit intentions and future recommendation. It is recommended that medical practitioners provide and update training guide for all staff to ensure that they are of best attitude towards patients. This will improve their overall communication and care towards the patients. Quality

improvements on the medical infrastructures, services and equipment are also important aspects of ensuring medical tourists are satisfied with Malaysia. This is useful considering that satisfied medical tourists would likely revisit and recommend Malaysia to potential medical tourists. Hence, this will improve Malaysia chances of becoming a medical tourism hub in the region.

8.5 Limitations to study

Similar to any type of research, the present study has several limitations. Firstly, the respondents for this study were medical tourists visiting Malaysia for different sorts of medical services. The perception of these respondents towards their visit for medical services is beneficial to generating the results for this study. However, the condition of the respondents meant that some of them might rely on a family member to fill the questionnaire on their behalf. Even though the researcher selected patients that have completed their treatment and about to exit the medical facility, this situation might be unforeseen to the researcher. Future studies can employ different means of collecting data from the respondents and determine whether similar results will be generated.

Secondly, the data was collected by physically visiting some JCI accredited medical facilities in Malaysia. The assumption is that medical tourists mostly prefer these hospitals as they have better facilities and have been accredited by an international body. The implication is that some medical tourists might decide to visit locally accredited hospitals and might be excluded from the study. Hence, the study may not reflect the views of a specific cohort of medical tourists' visiting Malaysia. Although studies show that majority of medical tourists are more likely to visit JCI accredited medical facilities, a group of individuals might still find other medical facilities that are more cost-efficient.

Next limitation is the potential for bias due to the type of treatment medical tourists sought. The completed questionnaire showed that majority of the respondents (about 81 per cent) came for major treatment (categorised as surgical procedures), whereas the rest came for minor treatment. This bias in treatment type was unforeseen, as the researcher selected the respondents based on their availability to participate. Future studies could examine whether the results will be corroborated when tested on a different scope.

Another limitation is that the present study was conducted only in Malaysia. Even though the nature of medical tourism is such that people from different nationalities are surveyed, the majority of the respondents were still from neighbouring Indonesia (about 34 per cent). This offers limited possibilities for theoretical development as the findings may not reflect the general views of medical tourists.

Lastly, like any other cross-sectional study, the present study can only provide a static perspective fit as it is not a longitudinal study. This is because, data were collected from medical tourists at a fixed period, and as a result, the casualty direction cannot be determined. For instance, this study captures the impact of destination branding factors on medical tourists' satisfaction at one point in time. For a longitudinal approach, researchers would have been placed in a better position to draw casual conclusions. Hence, only conclusions of the generalized relationship between the factors of interest could be drawn.

8.6 Directions for future study

The present study focused on investigating destination branding factors and their impact on medical tourists' satisfaction and loyalty. As a result, this study has proposed a destination branding model for medical tourism. This model tested destination brand image, awareness quality, satisfaction and loyalty which provide insight into medical tourists' perception of Malaysia as a destination. However, future research could expand the model by adding destination brand experience and value to determine medical tourists' perception of these factors.

Secondly, future research could focus on a comparative analysis between local and foreign medical tourists. The present study focused solely on medical tourists visiting from different countries to Malaysia for medical services, ignoring local medical tourists' that travel from different states within Malaysia for medical services. Future studies could investigate the similarities and differences in the perception of these medical tourists.

With a specific focus on Malaysia as a medical tourism destination, future studies could apply the destination branding model on different medical tourism destinations. Although medical tourists do travels from different countries to Malaysia, future studies could determine whether their perception of Malaysia is different from other medical tourism destinations. Moreover,

future studies could also investigate the perception of medical practitioners. As the current studies focused on the perception of medical tourists', future studies could investigate the perception of medical practitioners. This will provide useful information to medical tourism organization on how to strategise their resources and remain competitive.

The present study focused on inbound medical tourists' and their perception of Malaysia as a medical tourism destination. It will be interesting for future studies to examine the factors that influence outbound medical tourism. As Malaysia provides world-class services to medical tourists at an affordable price, future research could enlighten decision-makers on the factors that influence outbound medical tourism.

8.7 Conclusion

The present study aimed to provide valuable knowledge to literature and practice by examining the impact of destination branding factors in medical tourists' satisfaction and loyalty. The findings provide insight to medical tourism providers on the need to ensure the quality of medical infrastructures and services are maintained. Medical tourism providers must develop promotional guidelines, designed to ensure that medical tourists develop a positive and exciting emotion towards the destination. It is also vital that strategic business decisions are made to ensure the sustainability of the medical tourism industry in Malaysia. The satisfaction of medical tourists should be a top priority as it would most likely lead to revisiting intentions and willingness to recommend the destination to others.

The findings of this study provide a destination branding model for medical tourism that is based on empirical data and robust analysis. This study also provides an insight into the different destination branding factors influencing medical tourists' decisions. This information is useful for medical tourism providers in their strategic plan on how to sustain the industry.

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Appendix 1: Ethics Approval

To: Dr Julian Vieceli, FBL

SHR Project 2018/404 - Medical tourism in Malaysia: An investigation of destination branding and its influence on the behaviour of medical tourists

Dr Julian Vieceli – FBL/A/Prof Miin Huui Lee, Stanley Nwobodo (Student) – Sarawak/Dr Anjum Amin Chaudrhy – La Trobe University

Approved duration: 07-02-2019 to 07-02-2020 [Adjusted]

I refer to the ethical review of the above project by a Subcommittee (SHESC-Other) of Swinburne's Human Research Ethics Committee (SUHREC). Your responses to the review as e-mailed on 22 and 23 January and 4 February were put to the Subcommittee delegates for consideration.

I am pleased to advise that, as submitted to date, ethics clearance has been given for the above project to proceed in line with standard on-going ethics clearance conditions outlined below.

- The approved duration is **7 February 2019 to 7 February 2020** unless an extension is subsequently approved.
- All human research activity undertaken under Swinburne auspices must conform to Swinburne and external regulatory standards, including the *National Statement on Ethical Conduct in Human Research (2018)* and with respect to secure data use, retention and disposal.
- The named Swinburne Chief Investigator/Supervisor remains responsible for any personnel appointed to or associated with the project being made aware of ethics clearance conditions, including research and consent procedures or instruments approved. Any change in chief investigator/supervisor, and addition or removal of other personnel/students from the project, requires timely notification and SUHREC endorsement.

- The above project has been approved as submitted for ethical review by or on behalf of SUHREC. Amendments to approved procedures or instruments ordinarily require prior ethical appraisal/clearance. SUHREC must be notified immediately or as soon as possible thereafter of (a) any serious or unexpected adverse effects on participants and any redress measures; (b) proposed changes in protocols; and (c) unforeseen events which might affect continued ethical acceptability of the project.
- At a minimum, an annual report on the progress of the project is required as well as at the conclusion (or abandonment) of the project. Information on project monitoring and variations/additions, self-audits and progress reports can be found on the Research Ethics Internet [pages](#).
- A duly authorised external or internal audit of the project may be undertaken at any time.

Please contact the Research Ethics Office if you have any queries about on-going ethics clearance, citing the Swinburne project number. A copy of this e-mail should be retained as part of project record-keeping.

Best wishes for the project.

Yours sincerely,

Sally Fried

Secretary, SHESCs



Letter to the Medical Director

Dear Sir/ Madam,

RE: SURVEY ON DESTINATION BRANDING OF THE MEDICAL TOURISM INDUSTRY IN MALAYSIA AND ITS INFLUENCE IN THE BEHAVIOUR OF MEDICAL TOURISTS

With reference to the above, we would like to seek your permission to distribute survey questionnaires to the medical tourists in your hospital. The data gathered from the survey shall be used for a post graduate degree (by research) project entitled “*Medical tourism in Malaysia: An investigation of destination branding and its influence in the behaviour of medical tourists.*”

The purpose of the survey is to develop a destination branding model for medical tourism relevant to Malaysia. This will help in understanding the strategies to rebrand the Malaysia medical tourism industry as it seeks to become the choice medical tourism destination in Asia. To achieve this, we would like to survey the medical tourists themselves to find out their perception of Malaysia as a medical tourism destination.

We would survey them on their perception of areas such as; the image of the country, the reputation and awareness of the country, the quality of the facilities, their satisfaction as medical tourists, and whether they intend to revisit or recommend Malaysia to their friends, relatives, and family members. These would help in determining areas of improvement and strategies to rebrand the medical tourism industry in Malaysia. As your medical institution has contributed significantly to the growth of the industry, we hope the outcome of this study will help you continue to improve your services.

The Consent Information Statement attached which this letter contains detailed information about the research project that we would like the medical tourists to participate in. The Consent Information Statement explains the procedures involved in this project clearly.

We assure you that all responses will be treated in the strictest anonymity, privacy, confidentiality and only aggregated data will be reported. We would greatly appreciate if you can reply to us as soon as possible. Thank you for your time and kind attention to this matter.

Thank you.

Prof Lee Miin Huui

Dean, Faculty of Business, Design and Arts

Swinburne University of Technology, Sarawak Campus

Jalan Simpang Tiga, 93350 Kuching

Sarawak, Malaysia

Tel: +60 82 260671/ 415353 ext. 7671

Email: hlee@swinburne.edu.my



Participation Information Statement

Project Title:

Medical tourism in Malaysia: an investigation of destination branding and its influence on the behaviour of medical tourists’.

Investigators

- Dr. Julian VIECELI (Chief Investigator)
- Dr. Anjum Amin CHAUDHRY (Co-Investigator)
- Prof. Miin Huui LEE (Co-Investigator)
- Mr. Stanley NWOBODO (Student Investigator)

Faculty of Business, Design and Arts, Swinburne University of Technology, Sarawak Campus.

Introduction to the Research Project and Invitation to Participate

This Consent Information Statement contains detailed information about the research project, in which we would like you to participate. The purpose is to explain to you as openly and clearly as possible all the procedures involved in this project before you decide whether or not to take part in it.

We are undertaking a research project on medical tourists in Malaysia. Your response will be crucial to understanding the strategies to make Malaysia a favourable destination for medical tourism. We have also obtained an institutional agreement for participants’ involvement in this project from various medical institutions, including yours. In this project, your personal consent to participate is implied by your returning the completed survey questionnaire to the investigators.

You will be given a copy of this Consent Information Statement to keep as a record.

What this project is about and why it is being undertaken

The purpose of the survey is to develop a destination branding model for medical tourism. This will help in understanding the strategies to rebrand the Malaysia medical tourism industry as it seeks to become the choice medical tourism destination in Asia. To achieve this, we would like to survey the medical tourists themselves to find out their perception of Malaysia as a medical tourism destination. The variables to survey them on includes; their perception of the image of Malaysia, the reputation and awareness, the quality of the facilities, their satisfaction, and whether they intend to revisit or recommend Malaysia to their friends, relatives, and family

members as a medical tourism destination,

It is anticipated that the findings from the survey will increase our understanding of destination branding and how it might influence the medical tourism industry in Malaysia. We believe that the findings of this research project will contribute new knowledge on destination branding and its importance. These findings will form a basis for marketing medical tourism destination as it considered the perception of medical tourists towards a destination.

What Participation Will Involve

Your participation in this research project will involve filling out a questionnaire which will take approximately 15 minutes to complete. We encourage you to complete the questionnaire in one sitting. By completing and returning the survey questionnaire, your free and informed consent is implied.

Participant rights and interests- Risk & Benefits

In this project, questionnaires will be used to seek the views of the participants. The topic is not a sensitive one and participants will not be identifiable. It is anticipated that completing these questionnaires will pose **no** greater risk to participants than they encounter in everyday life. We do hope that you will also derive some enjoyment and benefit from participating in this research.

Consent to Participate & Right to Withdraw

It is important that you understand that your participation in this study must be voluntary. If you do not wish to take part in the study, you are under no obligation to do so.

Participant Anonymity

In this survey, the researchers will not be tracking any identifying information of individual participants and their respective institutional affiliations. Your responses are completely anonymous.

Privacy & Confidentiality

The project data will be stored securely within the premises of the University's Faculty of Business, Design and Arts at the Swinburne University, Sarawak campus.

Your privacy and confidentiality will be protected at all times, subject to legal limitations as follows:

- Research findings will be reported as aggregated results in any future publications so as to protect the identity of the respondents.
- All data pertaining to the research will be converted to electronic form and kept on password-protected hard-drives.
- The back-up disks will be kept in a locked cabinet in a steel metal, fireproof, locked cabinet.
- Only the three people listed above who are involved with this research will have access to these records.
- Following completion of the study, the data will be kept for a minimum of 5 years and maximum of 7 years. After this time all data will be destroyed ((See Swinburne's Policy on Conduct of Research <http://www.research.swinburne.edu.au/induction/code-of-conduct.html>)).

Research output

This research project is being undertaken by Stanley Nwobodo to fulfil the requirements of a PhD (by research) programme at Swinburne University of Technology, Sarawak Campus. It is anticipated that work related to this research will be published in peer-reviewed journals and presented at national or international conferences. Individual participants will not be identified and only aggregated results will be reported. You may wish to obtain copies of written reports based on these research findings. If so, please notify the researcher in writing using the details below (no additional costs will be involved).

Further information about the project- who to Contact

If you would like further information about the project, please do not hesitate to contact:

Prof Lee Miin Huui
Faculty of Business, Design and Arts,
Swinburne University of Technology, Sarawak Campus
Kuching, Sarawak, Malaysia
Tel +60 82 260671
Email: hlee@swinburne.edu.my

Ethical Concerns/ complaints about the project-who to contact

This project has been approved by or on behalf of Swinburne's Human Research Ethics Committee (SUHREC) in line with the Australian *National Statement on Ethical Conduct in Research Involving Humans*. If you have any concerns or complaints about the conduct of this project, you can contact:

Ethics & Integrity Officer
School of Research
Swinburne University of Technology
Sarawak Campus, MALAYSIA

Tel +60 (82) 260923; E-mail: ethics@swinburne.edu.my

Appendix 4: Questionnaire

SURVEY ON MALAYSIA AS A COUNTRY OF CHOICE FOR MEDICAL TOURISM AND THE INFLUENCE ON THE BEHAVIOUR OF MEDICAL TOURISTS

This survey aims to investigate the influence of destination branding on the behaviour of medical tourists. The findings from this survey will inform our research on how to rebrand the medical tourism industry in Malaysia and make it a choice destination in Southeast Asia. It is hoped that the outcome of this study will enhance the knowledge of policymakers and management on ways to improve the medical tourism industry in Malaysia. We encourage you to contribute to its success by completing this survey.

This survey is undertaken by a research team from the Swinburne University of Technology, comprising of Dr Julian Vieceli, Dr Anjum Amin Chaudhry, Prof Miin Huui Lee, and Stanley Nwobodo.

This survey requires about 15 minutes to complete.

Most of the items will require you to indicate the extent you agree or disagree with the statement, by ticking the appropriate number.

For Example;

(6) Moderately

<i>On a scale of 1 to 7, please select only one response for each statement.</i>	Strongly disagree					Strongly agree	
1. I am satisfied with my visit to Malaysia	(1)	(2)	(3)	(4)	(5)	(6)	(7)

- 1 = Strongly disagree
- 2 = Moderately disagree
- 3 = Slightly disagree
- 4 = Neutral
- 5 = Slightly agree
- 6 = Moderately agree
- 7 = Strongly agree

Please highlight only one number

We thank you in advance for your time and participation.

Swinburne University of Technology, Sarawak Campus
Jalan Simpang Tiga, 93350 Kuching Sarawak, Malaysia
Tel: +60 82 415 353
Fax: +60 82 428 353
Website: www.swinburne.edu.my



Section 1a

Please rate each of the items below on what you think or know about Malaysia as medical tourism country. The numbers reflect “1 = strongly disagree” and “7 = strongly agree”. You could make use of rating “0 = I cannot answer”, in case you are not in a position to provide an evaluation of an item.

My visit to Malaysia has included . . .		Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree	I cannot answer
1	Good quality of medical facilities & infrastructure	1	2	3	4	5	6	7	0
2	Standard of hygiene & cleanliness	1	2	3	4	5	6	7	0
3	Political stability	1	2	3	4	5	6	7	0
4	The good reputation of the destination	1	2	3	4	5	6	7	0
5	Unpolluted/unspoiled natural environment	1	2	3	4	5	6	7	0
6	Implementation of policies towards sustainability & environmental protection	1	2	3	4	5	6	7	0
7	Availability of hotels/accommodation/camping	1	2	3	4	5	6	7	0
8	Avoidance of daily routine	1	2	3	4	5	6	7	0
9	A safe place to travel	1	2	3	4	5	6	7	0
10	Easily accessible from permanent residence	1	2	3	4	5	6	7	0
11	Family-oriented destination	1	2	3	4	5	6	7	0

12	Good value for money	1	2	3	4	5	6	7		0
13	Satisfactory medical care on behalf of various professionals	1	2	3	4	5	6	7		0
14	Various shopping opportunities	1	2	3	4	5	6	7		0
15	Interesting cultural attractions	1	2	3	4	5	6	7		0
16	Interesting historical monuments & relevant events	1	2	3	4	5	6	7		0
17	Nice opportunities for biking/fishing/hunting/climbing	1	2	3	4	5	6	7		0
18	Nice opportunities for medical tourism	1	2	3	4	5	6	7		0
19	Good climate	1	2	3	4	5	6	7		0
20	Great beaches	1	2	3	4	5	6	7		0
21	Beautiful landscape	1	2	3	4	5	6	7		0

Section 1b

	Malaysia as a Medical tourism destination is . . .	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree		I cannot describe my feeling
1	Unpleasant	1	2	3	4	5	6	7	Pleasant	0
2	Gloomy	1	2	3	4	5	6	7	Exciting	0
3	Distressing	1	2	3	4	5	6	7	Relaxing	0
4	Negative	1	2	3	4	5	6	7	Positive	0
5	Unenjoyable	1	2	3	4	5	6	7	Enjoyable	0
6	Unfavorable	1	2	3	4	5	6	7	Favorable	0
7	Boring	1	2	3	4	5	6	7	Fun	0

Section 1c

Please rate these statements on the 7-point scale, with “1 = strongly disagree” to “7 = strongly agree”. You could make use of rating “0 = I cannot answer”, in case you are not in a position to provide an evaluation of an item.										
	Malaysia as a tourism destination . . .	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree		I cannot answer
1	Was always a dream-destination to visit sometime during my lifetime	1	2	3	4	5	6	7		0
2	Expresses oneself as a suitable vacation choice	1	2	3	4	5	6	7		0
3	Helps me put in use knowledge that I have (i.e. history, geography, philosophy)	1	2	3	4	5	6	7		0
4	Was always/constitutes a personal goal for vacations	1	2	3	4	5	6	7		0
5	As a choice, it stems from a personal need of mine that had to be fulfilled	1	2	3	4	5	6	7		0
6	Has evoked a persistent wish to visit it	1	2	3	4	5	6	7		0
7	Encapsulates positive attributes that help in the growth of my personality	1	2	3	4	5	6	7		0
8	Makes me believe that my vacations there may be the best reward/gift I can offer myself	1	2	3	4	5	6	7		0

Section 2

Sections 2 to 5 below reflect a series of general statements. Each represents a commonly held opinion about the medical tourism industry in Malaysia. You will probably agree with some and disagree with others. We are interested in the extent to which you agree or disagree with each statement. Using the scale where “1” means “strongly disagree” and “7” means strongly agree”, please select only one response for each statement.

		Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
1	I am aware of Malaysia as a medical tourism destination	1	2	3	4	5	6	7
2	This destination has a good reputation	1	2	3	4	5	6	7
3	I can recognise Malaysia among other similar medical tourism destinations	1	2	3	4	5	6	7
4	The characteristics of this destination come to my mind quickly when I think about medical tourism	1	2	3	4	5	6	7
5	I can quickly recall the marketing about the destination	1	2	3	4	5	6	7

Section 3

	How do you feel about the quality of services, facilities and infrastructures available to you?	Strongly disagree	Moderately agree	Slightly disagree	Neutral	Strongly agree	Moderately agree	Strongly agree
1	High quality of accommodation	1	2	3	4	5	6	7
2	The high quality of medical infrastructures and facilities	1	2	3	4	5	6	7
3	The high quality of cleanliness at the medical facilities	1	2	3	4	5	6	7
4	High level of personal safety	1	2	3	4	5	6	7
5	Appealing local food (cuisine)	1	2	3	4	5	6	7

Section 4

	How satisfied are you with the services received in Malaysia as a medical tourism destination?	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
1	I am sure it was the right thing to be a medical tourist in Malaysia	1	2	3	4	5	6	7
2	Using medical services in Malaysia has been a good experience	1	2	3	4	5	6	7
3	I feel good about my decision to visit Malaysia as a medical tourist	1	2	3	4	5	6	7
4	I have truly enjoyed the medical services in Malaysia	1	2	3	4	5	6	7
5	I am satisfied with my decision to visit Malaysia as a medical tourist	1	2	3	4	5	6	7

Section 5

	Would you recommend or revisit Malaysia in the future?	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
1	I will say positive things about Malaysian medical tourism to other people	1	2	3	4	5	6	7
2	I would recommend Malaysia to someone who seeks advice for medical tourism	1	2	3	4	5	6	7
3	I would encourage friends and relatives to visit Malaysia for medical tourism	1	2	3	4	5	6	7
4	I consider Malaysia as the first choice for medical tourism	1	2	3	4	5	6	7
5	I will revisit Malaysia in the next few years if the need arises	1	2	3	4	5	6	7

Some general information about you

Is this your first visit to Malaysia as a tourist?

- Yes
 No

Is this your first visit to Malaysia as a medical tourist?

- Yes
 No

If *No*, how many times have you visited _____

Nationality

- Malaysian
 Foreigner

If Malaysian, State / City _____

If Foreigner, Country of Residence _____

Country of Birth (If different from the above) _____

Gender?

- Male
 Female
 Other

Age group

- 18-23
 24-35
 36-41
 42-51
 52-61
 62 and above

How did you hear about medical tourism in Malaysia?

- Friends / Relatives
 Tourism magazines
 Agents
 Online search

- Television advertisements
Others specify _____

Please indicate your level of education

- Some high school
 College
 Vocational education
 University degree
 Post-graduate degree

Please indicate your marital status

- Single (never married)
 In-a-relationship
 De-facto
 Married
 Separated
 Widowed
 Divorced

Purpose of visit

- Medical service and recreation
 Medical service only

Type of treatment Sort

- Major medical treatment (Surgical procedures)
 Minor medical treatment (recuperation, check-up, etc)

Please Rank the following factors from 1 to 5 based on importance as a medical tourist (1 as the most important factor and 5 is the least important factor).

- Cost of treatment _____
- Reputation of physicians _____
- Quality of medical services _____
- Waiting time _____
- Accreditation of medical facilities _____