Testing mediation roles of place attachment and tourist satisfaction on destination attractiveness and destination loyalty relationship using phantom approach

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| CHRONICLE	ABSTRACT
	The main objective of this research paper is to examine the mediating roles of place attachment and tourist satisfaction on destination attractiveness and loyalty relationship using the phantom approach among foreign tourists visiting Langkawi Island, Malaysia. Tourists from three countries listed in the top 20 international markets visiting Malaysia were chosen as the target population. The survey was conducted at the departure hall of Langkawi International Airport using a simple random sampling method. A total of 365 useful questionnaires were returned and analyzed using Structural Equation Modelling (SEM). The findings of the study have empirically demonstrated that destination attractiveness had no significant direct influence on destination loyalty. However, the study discovered that tourist satisfaction and place attachment fully mediated the relationship between destination attractiveness and destination loyalty. Destination attractiveness has an indirect effect on destination loyalty. The study also illustrated that the tourist satisfaction factor had a stronger mediator effect than place attachment factor in the destination loyalty relationship model. The study suggested several insightful recommendations to the destination management office in maximizing tourist's experience with cultural attractiveness and adequate infrastructure, thereby, enhancing the visitation of international tourists to Langkawi Island.

1. Introduction

Worldwide, tourism industry is one of the fastest growing economic sectors and a key driver for socio-economic progress (World Tourism Organization, 2018). In most countries, the importance of tourism sector is profoundly acknowledged especially in providing employment opportunities and became the primary source of national income that contributed to the socio economic development of the nation. Malaysia is considered as one of the premier tourism destinations in Southeast Asia. In 2017, Malaysia was ranked as the second tourist friendly tourism destination after Singapore (Travel and Tourism Competitiveness Report, 2017). Malaysia is blessed with natural scenic beauty environments such as beautiful island, beaches and abundant unique flora and fauna (Mohamad & Abdul Ghani, 2014) which have attracted millions of tourists to visit Malaysia. Malaysia received 25.95 million tourist arrivals and RM 82.17 billion tourist receipts in 2017 (Tourism Malaysia, 2018). The arrivals of these tourists initiated the purchase of tourism products and services which, in turn, contributed to the growth of national economy. A total of USD 40.4 billion (13.7% of GDP) and 12.0% of total employment (1, 700, 500 jobs) were created in the Malaysia's tourism industry during 2016 (World Travel and Tourism Council, 2017). Therefore, tourism industry appears to be one of the key sectors that contributed to the Malaysia's socio-economic growth.

Even though tourism industry at the global market is growing rapidly, recently the visitations of international tourists to Malaysia reflected an unstable and declining pattern (Tourism Malaysia, 2018). In addition, the average length of stay also indicated a decreasing pattern from 6.8 nights in 2013 to 5.5 nights in 2015 (Tourism Malaysia, 2015; 2010; 2008). The study

by Mohamad et al. (2014) indicated that repeat- visit tourist is less than the first-time visit tourists indicating that vital efforts should be undertaken to ensure there will be an increase in returning tourists and spend more time in Malaysia. Three countries listed in the top 20 international market visiting Malaysia were selected: France, Germany and the Netherlands. These three countries recorded lower repeat-visit tourists compared to first-time visit tourists in the year 2014 till 2017 as illustrated in Fig. 1. According to Chi and Qu (2008), one of the criteria to assess loyalty is by examining repeat visitation. The data reflected that Malaysia tourism industry is facing the issue of destination loyalty.
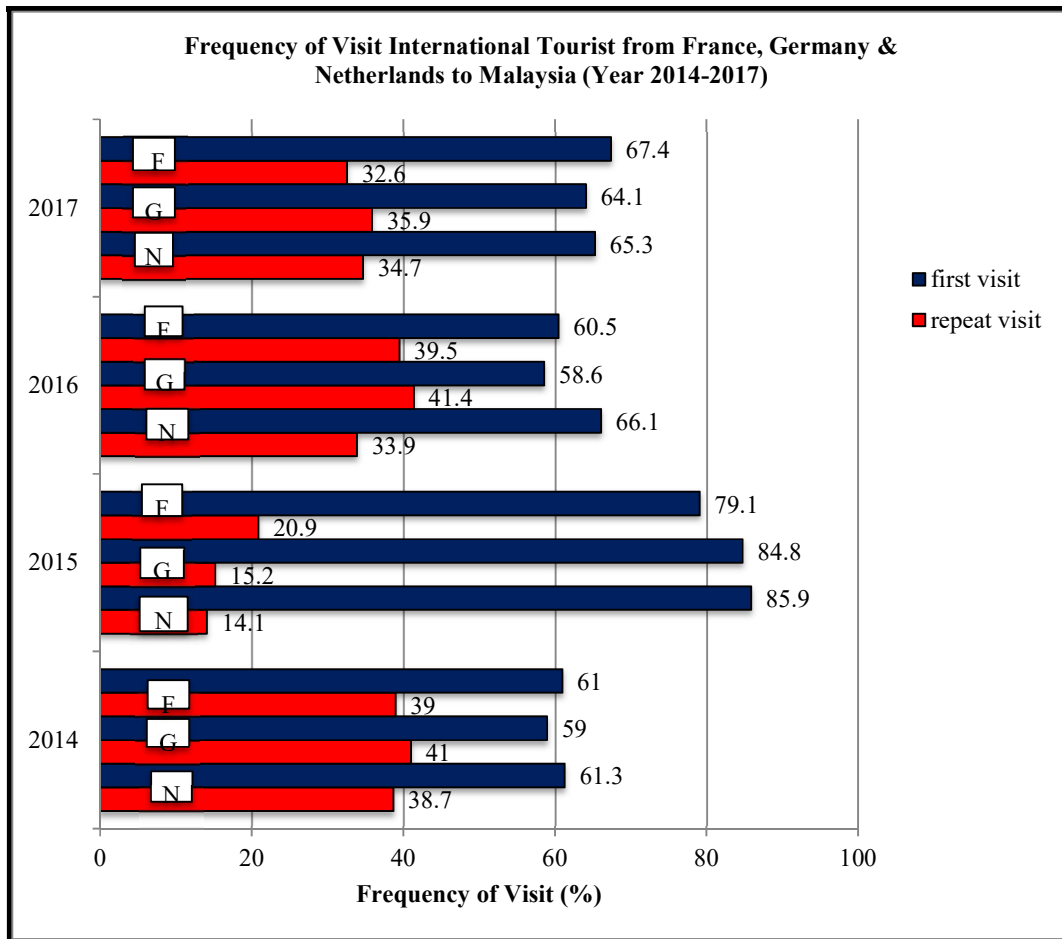
Note: France (F), Germany (G) and Netherlands (N)
Fig. 1. Frequency of Visit of Tourist from France, Germany and Netherlands to Malaysia in the year 2014 to 2017
Source: Tourism Malaysia (2014; 2015; 2016; 2017)

This study focuses on Langkawi Island, one of the popular tourist destinations located in the north-western corner of peninsular Malaysia. It was formed by 99 islands making it unique and is renowned for its beautiful beaches and richness in flora and fauna. In addition, it also has other criteria (multi-racial culture, a huge mangrove park and natural resources) meeting the requirements to be recognized as the first South East Asia's UNESCO Global Geopark in 2007. Malaysia Tourism Board (Tourism Malaysia) launched Langkawi Tourism Blueprint in order to promote Langkawi Island to be listed among the top ten islands in the world for ecotourism. Within five years of the implementation (2011-2015), Langkawi Island has received 13.68 million tourists which generated an income of RM 17.9 Billion (Langkawi Development Authority, 2018). Several tourism activities and development were introduced to attract tourists and revenue. However, less attention was devoted to sustainable development resulting in Langkawi Island was on the verge of losing its geopark status (Augustin, 2018). This study was conducted to identify potentials of Langkawi Island to maximize tourists' travel experience with natural and cultural heritage, and facilities meeting tourists' expectation. Moreover, the initiative was also triggered by the intention to sustain Langkawi Island as the popular UNESCO Global Geopark tourist destination in the Southeast Asia. The main aim of any business, including tourism, is to achieve high customer loyalty (Leong et al., 2015). Recent competitive developments within the tourism industry have heightened the need for acquiring destination loyalty. Thus, examining factors that could improve destination loyalty is crucial. Studying destination loyalty has been the focus of many academicians and practitioners as the benchmark to develop effective business strategies (Oppermann, 2000). Profound understanding of aspects related to enhancing destination loyalty, would help Destination Management office to design strategies fulfilling tourists' needs and wants which, in turn, contributed to tourist's repeat visitation (Chen & Gursoy, 2001). Previous studies proposed that destination attractiveness (Xu & Zhang, 2016), place attachment (Tsai, 2012) and tourist satisfaction (Meng et al., 2008) are important

determinant factors that could enhance destination loyalty. In addition, the influence of these factors on destination loyalty has been discussed by different authors. There is a significant relationship between destination attractiveness and place attachment (Xu & Zhang, 2016; Song et al., 2017). Destination attractiveness and tourist satisfaction significant relationship is discovered in studies done by Ramseook-Munhurrun et al. (2015); Xu and Zhang (2016) and Liu et al. (2017). Likewise, the significant effect of destination attractiveness and destination loyalty is revealed in studies by Akroush et al. (2016) and Chien (2016). Previous studies discovered that tourist satisfaction (Mohamad et al., 2014) and place attachment (Song et al., 2017) are mediators in destination attractiveness and destination loyalty relationship.

Table 1 summarizes selected works of different authors examining the destination attractiveness and destination loyalty relationship whilst treating place attachment and tourist satisfaction as mediators. However, Table 1 illustrates that none of the listed studies investigate the causal relationships among destination attractiveness, tourist satisfaction, place attachment, and destination loyalty in one model simultaneously. Against this background, this study was conducted to expand the understanding of destination loyalty among international tourists visiting Langkawi Island. Based on the above setting, the objectives of the study are as follows:

1. To determine the effect of destination attractiveness on destination loyalty, tourist satisfaction and place attachment,
2. To examine the influence of tourist satisfaction and place attachment on destination loyalty,
3. To ascertain the mediation roles of tourist satisfaction and place attachment on destination attractiveness and destination loyalty relationship.

Table 1
Summary of Studies on Destination Attractiveness (DA), Place Attachment (P), Tourist Satisfaction (TS) and Destination Loyalty (DL)

No.	Researchers	Relationship						
		H_1 DA → DL	H_2 DA → TS	H_3 DA → P	H_4 TS → DL	H_5 DA → TS → DL	H_6 P → DL	H_7 DA → P → DL
1.	Alexandris et al. (2006)	√	√	√	√	√	/	√
2.	Mohamad et al. (2014)	/	/	√	/	/	√	√
3.	Rajaratnam, et al. (2015)	√	√	√	/	√	√	√
4.	Akroush et al. (2016)	/	√	√	√	√	√	√
5.	Su et al. (2016)	√	√	√	/	√	√	√
6.	Xu and Zhang (2016)	√	/	/	/	√	/	√
7.	Kim and Park (2016)	√	√	√	/	√	√	√
8.	Whang et al. (2016)	/	√	√	√	√	√	√
9.	Brown et al. (2016)	√	√	√	√	√	/	√
10.	Lin and Kuo (2016)	√	√	√	/	√	√	√
11.	Masa'deh et al. (2017)	√	√	√	/	√	√	√
12.	Liu et al. (2017)	√	√	√	√	√	/	√
13.	Hosany et al. (2017)	√	√	√	/	√	/	√
14.	Song et al.(2017)	√	√	/	√	√	/	/
16.	Current Study	/	/	/	/	/	/	/

Note: (/) = test the relationship, (X) = do not test the relationship

2. Literature Review

2.1 Destination Loyalty

The concept of loyalty has been widely used in various industries for a few decades. In tourism research, loyalty is widely known as destination loyalty. According to Hsu et al. (2008) destination loyalty is defined as tourist's positive feelings and attitudes that encourage them to make repeat visits to a particular destination. On the other hand, destination loyalty is defined as repeat purchases or recommendation of destination to other people (Yoon & Uysal, 2005). This study referred destination loyalty as tourist's feeling and attitude that encourage them to make repeat purchases or recommendation.

It is important to maintain destination loyalty among tourists to a particular destination since it could generate enormous income and socio-economic growth to the nation. Loyal tourists, who usually would disseminate positive words of mouth and make repeat visit to the destination, is an important source of profitability (Marković et al., 2014). The profitability can be

increased to 25%-85% from 5 % enhancement in customer retention, depending on the industry sector (Reichheld & Sasser, 1990). Several authors (Zeithaml et al., 1996; Schiffman & Kanuk, 2010; Phillips et al., 2011) have established that profits can be increased from the reductions in customer defections because of: (1) loyal tourists tends to make repeat visit (2) loyal tourists are less price- sensitive and they are not interested towards competing destinations (3) loyal tourist saying good things about destination tourism (4) providing services to the existing tourists is cheaper than new tourists.

Destination loyalty is conceptualized as having three major components: attitudinal, behavioral and composite loyalty (Zhang et al., 2014; Afthanorhan et al., 2019). Attitudinal loyalty refers to mental expression, for example intention to revisit or suggesting to other potential visitors. Behavioral loyalty signifies the behavioral outcome such as repeat visit. The combination of attitudinal and behavioral loyalty is described as composite loyalty (Mohamad et al., 2015). Based on these definitions, behavioral and attitude are the key features to determine individual's loyalty towards particular destination tourism.

2.2 Destination Attractiveness

The concept of destination image is being used interchangeably with destination attractiveness since these two constructs have been measured in a similar way (Xu & Zhang, 2016). This study decided to use destination attractiveness instead of destination image. A study conducted by Tomigova et al. (2015) postulates that the concept of attractiveness is concerned with the extent to which resources at a particular tourism destination meeting the tourist's expectation in terms of availability, budget and time. The term 'resource' refers to natural, cultural and anthropogenic (human-made resources). On the other hand, Hu and Ritchie (1993) defined destination attractiveness as tourist's feelings, beliefs and opinions about a destination's ability in meeting their special vacation needs. Consequently, destination attractiveness can be defined as tourist's feelings, beliefs and opinions of a destination's natural attractiveness, cultural attractiveness and infrastructure in meeting their special vacation needs in terms of availability, budget and time.

Different authors measured destination attractiveness with different dimension. A study by Akroush et al. (2016) used two dimensions to manifest destination attractiveness: physical environment and people characteristics. Measuring destination attractiveness using two dimensions as proposed by Akroush et al. (2016) is not as comprehensive as to the one suggested by Xu and Zhang (2016). These authors expand measuring destination attractiveness by using three dimensions, instead of two, encompassing natural attractiveness, cultural attractiveness and infrastructure. Earlier works of different researchers found that destination attractiveness has a significant impact on destination loyalty (Akroush et al., 2016; Chien, 2016), tourist satisfaction (Ramseook-Munhurrun et al., 2015; Xu & Zhang, 2016; Liu et al., 2017) and place attachment (Xu & Zhang, 2016; Song et al., 2017).

Against the above background, the following hypotheses were developed.

H1: Destination attractiveness has a significant influence on destination loyalty.
H2: Destination attractiveness has a significant influence on tourist satisfaction.
H3: Destination attractiveness has a significant influence on place attachment.

2.3 Tourist Satisfaction

Over the past decade, studies on customer satisfaction have been given much attention among researchers in consumer-behavior and tourism research to examine behavioral outcomes and gain insightful managerial implications in managing tourist's experience (Kozak, 2001; Mingfang, 2010). Chiu et al. (2016) defined tourist satisfaction as the comparison made by the tourists on their initial expectation and perception. Satisfaction occurs when tourist's perception is exceeding their initial expectation. On the other hand, Xu and Li (2016) proposed that tourist satisfaction occurs when tourists have positive judgements with their travel experience, while negative reviews of their travel experience convey dissatisfaction. Hence, when the experience at a particular tourism destination is meeting tourist's expectation, it portrays their satisfaction. Gaining tourist satisfaction is fundamental in assuring repeat visits and dissemination positive word of mouth about the destination.

There are two approaches of measuring tourist satisfaction: overall multi-item and multi-attribute approach. Kim et al. (2015) and Xu and Zhang (2016) measured satisfaction by using overall satisfaction approach. Conversely, Mohamad and Abdul Ghani (2014) used multi-attribute approach of measuring tourist satisfaction using three dimensions: natural destination attraction (nature), accessibilities and facilities (infrastructure), and events and heritage (culture). This study adopts a multi-item satisfaction approach of capturing overall tourist satisfaction level at a particular destination mainly because using overall satisfaction with multiple items could get a greater variance in explaining overall satisfaction (Kim et al., 2013). Secondly, overall satisfaction is considered as a cumulative construct summing satisfaction with a range of facets in a particular destination (Prayag & Ryan, 2012).

Many studies found that tourist satisfaction has a significant impact on destination loyalty (Xu & Zhang, 2016; Lin & Kuo, 2016; Su et al., 2016; Masa'deh et al., 2017). Moreover, Mohamad et al. (2014) found that tourist satisfaction partially mediates the relationship between destination attractiveness and destination loyalty. Thus, the following hypotheses were formulated:

H_4: Tourist satisfaction has a significant effect on destination loyalty.
H_5: Tourist satisfaction mediates the relationship between destination attractiveness and destination loyalty.

2.4 Place Attachment

Place attachment is described as tourist's personal connection with a particular destination (Suntikul & Jachna, 2016). Instead, Lee and Shen (2013) defined place attachment as the development of positive relationship between an individual and destination. Thus, it may be suggested that place attachment refers to a positive personal connection between tourist and a destination where the tourist appreciates the destination and taking a genuine interest in it. The connection occurs when the destination is able to exceed the individual's expectation and build favorable psychological interaction between the individual and destination. Place attachment is the results of the subsequent evaluation of a particular destination which develop emotional ties between tourists and the destination. Emotional ties refer to the favorable feeling of a tourist towards a destination.

Xu and Zhang (2016) and Ramkinsoon et al. (2014) used four dimensions to manifest place attachment, namely place identity, place dependence, affective attachment and social bonding. However, Hosany et al. (2017) and Kim et al. (2017) argued that there are only two important dimensions to measure place attachment instead of four. These dimensions are place dependence and place identity. This study has decided to measure place attachment by using four dimensions since it is comprehensive and accurate representation of place attachment when analyzing simultaneously in one particular model. In addition, it is a better approach when the study intends to confirm the factor structure of place attachment as suggested by Ramkissoon et al. (2013, 2014). Past studies have confirmed that place attachment has significant effects on destination loyalty (Alexandris et al., 2006; Loureiro, 2014; Tsai, 2016; Xu & Zhang, 2016; Liu et al., 2017). Most importantly, Song et al. (2017) found that place attachment mediates the relationship between destination attractiveness and destination loyalty.

Hence, the following hypotheses were developed:

H_6: Place attachment has a significant impact on destination loyalty.
H_7: place attachment mediates the relationship between destination attractiveness and destination loyalty.

3. Methods

3.1 Sampling and Procedures

The study adopts a cross-sectional causal research design, examining variation in the variable expected to cause the change on the other variables. It is a snap-shot study, specifically aimed to examine the influence of destination attractiveness on destination loyalty. Tourist satisfaction and place attachment are treated as the mediating variables that mediate the destination attractiveness-destination loyalty relationship. Data were collected by using structured questionnaires among international tourists from France, Germany and Netherlands at the departure hall of Langkawi International Airport.

3.2 Questionnaire Development

The questionnaire comprises of five sections. The first section of the questionnaire consists of 21 items measuring three dimensions (natural attractiveness, cultural attractiveness and cultural attractiveness) of destination attractiveness adapted from Xu and Zhang (2016). The second section of the questionnaires consists of a one-dimensional construct with 7 items on tourist satisfaction adapted from works of Lee et al., (2007) and Kim et al., (2015). The third section contains 17 items manifesting place attachment using four dimensions, namely, place identity, place dependence, affective attachment and social bonding, adapted from the work of Xu and Zhang (2016). One-dimensional construct with 6 items on destination loyalty adapted from works of Mohamad et al. (2011) and Sun et al. (2013) is positioned in the fourth section of the questionnaire. Finally, the fifth section of the questionnaire is designed to capture the demographic details of respondents. All items manifesting constructs in this research were constructed using a 10-point interval scale, ranging from 1 as strongly disagree and 10 strongly agree.

3.2.1 Pilot Test Stage

Pre-test and pilot study were executed before performing the actual survey. The data collected from the pilot survey was subjected to exploratory factor analysis (EFA) using IBM SPSS to ascertain the underlying dimensions of the latent construct and the number of items retained in this study (Hair et al., 2014). Reliability analysis was also performed to measure the

internal reliability of the instrument using Cronbach's Alpha value. The study achieved Cronbach's Alpha values for destination attractiveness, tourist satisfaction, place attachment and destination loyalty are 0.85, 0.95, 0.91 and 0.92 respectively. These values indicated that all constructs in this study are meeting the requirement of internal consistency since the values of Cronbach's Alpha for each construct is greater than 0.7 as suggested by Hair et al., (2014).

3.2.2 Field Work

The actual survey was conducted at the departure hall of Langkawi International Airport. Respondents from Germany, France and Netherlands were selected through simple random sampling method from a sampling frame, consisting of 524 cases, generated by the researcher since the accurate number of populations is not available (Burn et al., 2017). The sample size of the study was determined by using the Hairs et al. (2010) and Burns et al. (2017) rules of thumb. Hair et al. (2010) stated that for any research performing factor analysis procedure must have at least 5 to 10 times sample size as many items to be analyzed. Besides, Burn et al. (2017), by using the confidence interval method, suggested that the sample size should be between 96 and 384. The computed sample size for the study is 365 samples which is meeting the conditions set by the above rules of thumb.

3.2.4   Statistical Analysis

Confirmatory Factor Analysis (CFA) was used to validate the measurement model. There are three types of validity tests; construct validity, convergent validity and discriminant validity (Mohamad et al., 2018). Construct validity was assessed by using goodness-of-fit indices. On the other hand, convergent validity was assessed through Average Variance Extracted (AVE) and Composite Reliability (CR). Discriminant validity is achieved when the square root of AVE for all the constructs is higher than the value of the correlation between the respective constructs. Moreover, the correlations values among constructs should be less than 0.85 as recommended Hair et al. (2010). Reliability of the measurement model is assessed by using CR value and should be equal or more than 0.7. The unidimensionality requirement is achieved when the factor loading values are equal or more than 0.6. Structural equation modelling was performed to test the proposed hypotheses. Moreover, the phantom model approach is used for estimating and contrasting the two specific effects between two mediators: place attachment and tourist satisfaction. The effect of destination attractiveness on destination loyalty is transmitted by two parallel mediators and therefore it is often of interest to better understand which of these two mediators has a stronger mediating effect and is more relevant in estimating the research model. In this case, parametric bootstrap is used to generate the confidence intervals.

4. Findings and Analyses

4.1 Respondent profile

Among the three countries, Langkawi Island was visited mostly by tourists from the Netherlands (46.3%) followed by Germany (36.7%) and France (17%). They are teenagers and young adults (68%) travelling with their spouse or partner, family members and friends. Majority of them were spending their holidays (96%) at the island for more than 10 days but less than 23 days. Whilst on the island, they spent their time mostly on the beaches, sightseeing in the county side, doing jungle trekking, shopping souvenirs, scuba diving and snorkeling. The trip was their first trip (80%) and they know about the island mostly through websites on the internet followed by friends and relatives who have visited the island. Their choice of accommodation is hotel and followed by homestay.

4.2 Evaluation of Measurement Model

Fig. 2 illustrates the pool measurement model of destination attractiveness, tourist satisfaction, place attachment, and destination loyalty. The goodness of fit is satisfied as indicated in Table 2.

Table 2
The Goodness of Fit Index of the Model

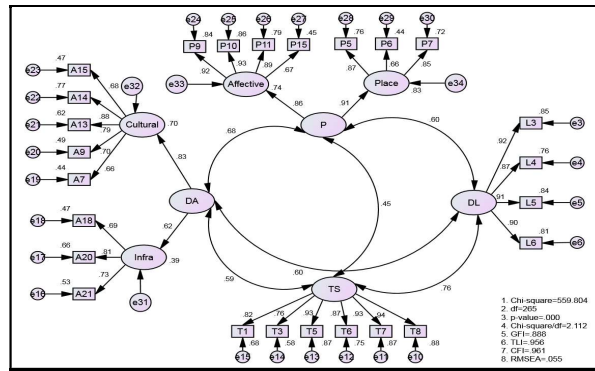| Name of Category	Name of Index	Level of Acceptance Recommended by (Hair et al., 2010)	Present Model
1. Absolute Fit	RMSEA	RMSEA<0.08	0.055
2.Incremental Fit	CFI	CFI>0.90	0.961
	TLI	TLI>0.90	0.956
3.Parsimonious Fit	Chi/df	Chi/df<3.0	2.112

Fig. 2. The Final Pooled Measurement Model

Table 3 presents factor loading, CR and AVE of the measurement model. The information in the table suggested that the model meets the requirement for convergent validity and reliability (CR ≥ 0.7, AVE ≥ 0.5). In addition, the factor loading values of all items measuring destination attractiveness, tourist satisfaction, place attachment and destination loyalty are higher than 0.6. Thus, all constructs in this study achieved unidimensionality requirement.

Table 3
Factor Loading, Composite Reliability and Average Variance Extracted

Constructs	Loading	CR	AVE
Destination Attractiveness		0.70	0.54
Factor 1: Cultural Attractiveness	0.83	0.86	0.56
Local festivals (A7)	0.66		
Learning local skills (A9)	0.70		
Traditional customs (A13)	0.79		
Local cultural performances(A14)	0.88		
Langkawi Island special souvenirs(A15)	0.68		
Factor 2: Infrastructure	0.62	0.79	0.56
Convenient local transportation (A18)	0.69		
Standard travel services (A20)	0.81		
Convenient visitor information center (A21)	0.73		
Tourist Satisfaction		0.95	0.77
My overall evaluation of my vacation is satisfactory (T1)	0.82		
My overall evaluation of my vacation is satisfactory when considering my invested time (T3)	0.76		
My overall evaluation of my vacation is positive (T5)	0.93		
My overall evaluation of my vacation is favorable (T6)	0.87		
I am satisfied with my vacation (T7)	0.93		
I am pleased with my vacation (T8)	0.94		
Place Attachment		0.88	0.78
Factor 1: Place Dependence		0.84	0.74
I like visiting Langkawi Island more than any other destinations (P5)	0.91		
For me, Langkawi Island cannot be substituted by other Asian destinations (P6)	0.87		
I have a special connection with those people who like visiting Langkawi Island (P15)	0.66		
Factor 2: Affective Attachment	0.86	0.92	0.74
Langkawi Island means a lot to me (P9)	0.92		
I am very attached to Langkawi Island (P10)	0.93		
I have a strong sense of belonging for Langkawi Island (P11)	0.89		
I have a special connection with those people who like visiting Langkawi Island (P15)	0.67		
Destination Loyalty		0.95	0.81
I will recommend Langkawi Island to friends(L3)	0.92		
I will recommend Langkawi Island to family members (L4)	0.87		
I will encourage other people to visit Langkawi Island (L5)	0.91		
I will spread positive word-of-mouth about Langkawi Island(L6)	0.90		

Results presented in Table 4 suggest that all latent variables in the research model achieved the discriminant validity requirement. The discriminant is established when the values of square roots of the average variance (diagonal values in bold) are larger than the values of correlations between each construct in the model and the correlations values among them are lesser than 0.85 as recommended by (Hair et al., 2010).

Table 4
Discriminant validity index summary

Construct	Destination Loyalty	Destination Attractiveness	Tourist Satisfaction	Place Attachment
Destination Loyalty	0.90			
Destination Attractiveness	0.60	0.73		
Tourist Satisfaction	0.76	0.59	0.88	
Place Attachment	0.60	0.68	0.45	0.88

4.3 Structural Model

Fig. 3 illustrates the structural model of the study testing the interrelationships among multiple variables comprising of destination attractiveness, place attachment, tourist satisfaction and destination loyalty. A second-generation method of structural equation modelling was executed to analyze the hypotheses of the present study. Basically, there were seven hypotheses developed in this study. H_1, H_2, H_3, H_4 and H_6 were formulated to test the direct effect among the constructs in this study using path analysis. H_5 and H_7 were proposed to test the mediating effect of tourist satisfaction and place attachment on destination attractiveness and destination loyalty relationship using phantom model approach.

Table 5 illustrates that H_2, H_3, H_4 and H_6 were supported and there is not enough evidence to support H_1. H_1 shows that destination attractiveness had no significant effect on destination loyalty (β=0.066, Z=0.321, p=0.749). H_2 indicates that destination attractiveness had significant effect on tourist satisfaction (β=0.984, Z=7.163, p=0.001). Moreover, H_3 confirmed that destination attractiveness had a significant effect on place attachment (β= 1.681, Z= 7.064, p= 0.001). H_4 signified that tourist satisfaction has significant effect on destination loyalty (β=0.892, Z= 11.478, p= 0.001). Likewise, H_6 also denoted that place attachment had significant effect on destination loyalty (β = 0.302, Z = 4.514, p=0.001).

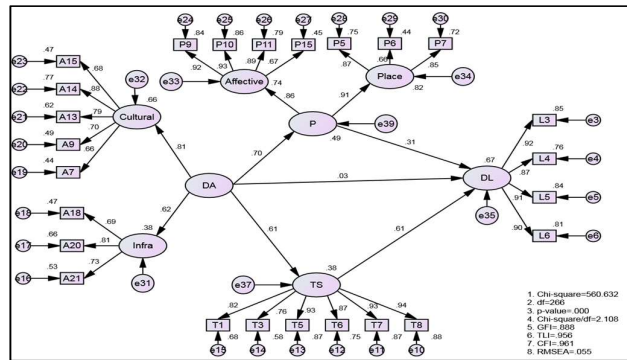**Fig. 3.** Structural Model

Table 5

The Regression analysis

	Estimate	S.E	C.R	P-value	Hypotheses	Result
DL←DA	0.066	0.206	0.321	0.749	H1	Not Significant
TS←DA	0.984	0.137	7.163	0.001	H2	Significant
P←DA	1.681	0.238	7.064	0.001	H3	Significant
DL←TS	0.892	0.078	11.478	0.001	H4	Significant
DL←P	0.302	0.067	4.514	0.001	H6	Significant

Note: Destination Loyalty (DL), Destination Attractiveness (DA) Tourist Satisfaction (TS), Place Attachment (P).

4.5 Comparing the mediated effect using Phantom Model Approach

In this section, the phantom model is constructed for estimating specific indirect effect but they are entirely disconnected which does not influence the estimation of the parameters in the research model (Plomp et al., 2019; Dwivedi et al., 2018). Technically, the effect from destination attractiveness on destination loyalty is transmitted by two parallel mediators namely tourist satisfaction and place attachment. Therefore, it is often of interest to better understand which mediated effect is much stronger and more relevant in estimating the research model. Given to this method, the phantom model approach does not require stringent assumptions when testing with the complicated model. Therefore, it is not limited for many users who apply structural equation modelling programs.

Table 6

Comparison Results between P and TS

	DA → DL via P (H8)	DA → DL via TS (H5)
Unstandardized Estimates	0.885	0.930
Lower Bound (95%)	0.345	0.555
Upper Bound (95%)	2.628	1.728
P-Value	0.002	0.002
Result	**Significant**	**Significant**
Conclusion	Both null hypotheses are rejected.	

Table 6 shows the estimated results (standardized and unstandardized estimates) as well as the 95% confidence intervals for each phantom model. The maximum likelihood bootstrap was performed for each of the phantom model with 1,000 bootstrap

samples. According to Westland (2016), the 1,000 bootstrap samples are adequate to execute parametric bootstrap. Due to the fact that, we drew maximum likelihood bootstrap to compute the percentile method and bias-corrected percentile method for estimating the standard error of estimated results. Both results indicate significant specific effect as zero value does not straddle in between the lower and upper boundary of 95% confidence interval. Therefore, the null hypothesis of this study is rejected because the confidence intervals of both phantom models do not include zero. Also, with these results, tourist satisfaction construct ($\beta = 0.930$) is much stronger than place attachment construct ($\beta = 0.885$) in intervening the effect of destination attractiveness on destination loyalty.

5. Discussion

5.1 Theoretical contributions

The study was conducted to determine the effects of destination attractiveness on destination loyalty whilst treating tourist satisfaction and place attachment as mediators on the relationship between these two latent constructs. A theoretical model which incorporates the interrelationships among these constructs was proposed and tested. The study has confirmed that the destination loyalty was adequately explained by destination attractiveness, tourist satisfaction and place attachment as the achieved total variance explained is 67%. There is not enough evidence to support Hypothesis 1 which postulates that destination attractiveness has a significant influence on destination loyalty. The finding is consistent with the study conducted by Ramseook-Munhurrun et al. (2015). The finding suggested that there could be other factors mediating the relationship between destination attractiveness and destination loyalty. Hypothesis 5 and Hypothesis 7 stated that destination attractiveness has indirect effects on destination loyalty through place attachment and tourist satisfaction respectively. This shows that the effect of destination attractiveness on destination loyalty is indirect. The findings have suggested that it is important to achieve tourists' emotional ties with the destination and their satisfactions to warrant destination attractiveness could have a significant influence on destination loyalty. Otherwise, development efforts invested by the Langkawi tourism management to attract and increase international tourists' visitations are most likely futile and do not support the intention to retain the island status as one of the prestigious Global Geoparks in the region. Thus, Langkawi Tourism management should focus on exhibiting unique cultures of the local people and providing infrastructures that would meet tourist expectation (postulated by hypothesis 2 that destination attractiveness has a significant influence on tourist satisfaction).

The present study has also contributed to the Oliver's (1999) Four Stage Loyalty Theory whereby this theory claimed that customer loyalty is developed consecutively from cognitive, affective, conative and lastly turn into actual behavior (action loyalty). First stage is cognitive loyalty whereby it is based on the brand belief (Oliver, 1999). In this study, destination attractiveness represents this construct since it involves the perception towards destination. The second stage is affective loyalty whereby it involves a liking attitude towards the brands due to satisfaction in using the brand (Oliver, 1999). In this case, place attachment and tourist satisfaction represent this stage whereby it involves satisfaction and emotional connection between the tourist and the destination. Thirdly, conative loyalty whereby it is commonly known as behavioral intention (Oliver, 1999). In this study, destination loyalty represents this stage since it involves the tourist intention to recommend to friends, family and other people as well as spreading positive word of mouth. Lastly, action loyalty is where the consumer is committed to rebuy consistently in the future. In other words, it indicates the actual behavior of the tourists. In this case, when the tourists went back to their countries, they start to recommend to friends, family and other people as well as spreading positive word of mouth. Hence, the model in this study is supported by Oliver's (1977) Four Stage Loyalty theory.

5.1 Practical contributions

Langkawi should continue to showcase its culture attractiveness that cuts through all its journey of development. Tour guides should be made available and capable of delivering the experience of walking the village lanes, meet up with local families and get to see old traditional Malay houses to appreciate how the architecture has evolved over time. In addition, services should also be made available to provide tourists with the experience of visiting places of worship and become aware of the coexistence of the three major communities (Muslim, Hindu and Buddhism) that are practiced harmoniously with their respective traditional customs on the island. Activities involving watching local festivals performing cultural performances, seeing local plants and herbs whilst understanding their medicinal values, visiting water buffalo farm and watching the making of dairy products could be included in the activities to do on the island. Chance to visit and/or live-in with the local families, involved in their daily chores, who mostly worked as fishermen and farmers, could promote achieving tourists' emotional ties with the destination. The event would provide tourists the prospect of learning local skills. The operating of night market where local people set up temporary stalls displaying and selling authentic Malay delicacies, local fruits and snack, and the island special souvenirs would provide a great avenue for tourists to roam around and have chats with the locals and select souvenir items unique to the island.

Moreover, the management of Langkawi Island should not undermine the role of providing infrastructure meeting tourists' needs, such as convenient transportation, travel services and visitor information center. To date, there is no public bus on this island except a coach charted by private group. Thus, providing public buses service is desirable which could cater the needs of tourist who would like to travel the island according to their own schedule and pace. This would ease the movement of

tourists in exploring the island during their stay. Apart from that, the Destination Management Office should provide more visitor information center in order to facilitate the tourists in getting information regarding the island, especially those who travel on their own, without using tour operator service.

In addition, efforts should be focused on making tourists' experience visiting Langkawi Island as of no substitute to other ASIAN destinations by meeting tourists' needs more than the other competing destinations. Place attachment amongst international tourist especially from France, Germany and the Netherlands occurs when visiting Langkawi Islands is meaningful to them and they feel a strong sense of belonging for Langkawi because they have a special connection with people who also visited the island (postulated by hypothesis 3). Therefore, Langkawi Tourism management should develop a travel blog that focuses on sharing personal social network, where they can share their experiences and interests whilst on the island and/or after their visitations. The findings of the study also indicated that tourist who are satisfied with their travel experience and have a personal connection with destination would recommend Langkawi Island to friends, family members and other people. Moreover, not only recommending to others but they are also spreading positive word-of-mouth about Langkawi Island as postulated by hypothesis 4 and hypothesis 6.

6. Conclusion

This study has employed structural equation modelling to examine the interrelationship among destination attractiveness, tourist satisfaction, place attachment and destination loyalty. The measurement model has passed the reliability and validity test. Seven hypotheses were tested and all hypotheses proposed in the study were supported except Hypothesis 1. Destination attractiveness has no direct effect on destination loyalty. However, the study has suggested that the destination attractiveness and destination loyalty relationship were mediated by tourist satisfaction and place attachment, with tourist satisfaction construct having stronger mediating effect than place attachment. This study has been concluded by making several suggestions to be implemented to the Langkawi Tourism management, such as to focus on developing the island attractiveness to meet tourists' expectation and able to build tourists' personal connection with the island. Thus, satisfied tourists who have a personal connection would encourage others to visit the island and spread positive word-of-mouth. This study has proved that the variance in destination loyalty is 67% explained by destination attractiveness, tourist satisfaction and place attachment. Future research should consider examining the impact of other constructs such as tourist involvement, tourist motivation and perceived value on destination loyalty.

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