Homestay Owners' Perspective of Economic Sustainability of the Registered Malaysian Homestay

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ABSTRACT

The main economic issues faced by the registered Malaysian homestay program are the issues of competition from unregistered homestays, local community employment and the tourism multiplier effect of homestays. This research investigates the relationship between destination competitiveness, employment and multiplier effect and homestay sustainability from the homestay owners' perspective. The objective of this study is to measure homestay sustainability using destination competitiveness, employment, and the multiplier effect. Survey questionnaires were given to the 254 homestay owners using cluster sampling method. To analyze the data, Partial Least Square (PLS) approach to Structural Equation Modeling (SEM) was used. The findings of this study confirm the significant relationships between destination competitiveness and multiplier effect with homestay sustainability. The most important finding is that the homestay owner confirms that the unregistered homestays are not a threat to the competitiveness of the registered homestay program. Secondly, registered homestays do have the multiplier effect and provide a steady financial overflow to the homeowners' and the other stakeholders within the local community. The findings also suggest no significant relationship between employment and homestay sustainability.

Keywords: Destination competitiveness, economic sustainability, employment, homestay, Malaysia, multiplier effect

INTRODUCTION

The Malaysian homestay program was officially launched in 1985 as a government initiative to fulfill the Government's

rural development and tourism agenda (Pusiran & Xiao, 2013). The agenda of the government for the tourism industry and rural communities was two-fold; to eradicate poverty and create job opportunities for the local rural communities. Thus, the Malaysian homestay program is a rural tourism initiative developed with a two-prong objective; firstly to generate income to the operator in the rural area; and secondly to promote Malaysia as a tourist destination (Pusiran & Xiao, 2013).

Historically, the Malaysian homestay program can be traced back as early as the 1970s at Kg. Cherating Lama in Pahang, where a local lady by the name of Mak Long took in long staying drifters/hippies and provided breakfast, dinner, and accommodation within her humble house (Amran, as cited in Pusiran & Xiao, 2013). Small rural villages are otherwise known as 'kampongs' followed suit this arrangement to gain the benefits of the influx of domestic and international tourists who were looking for a different travel experience to learn and experience culture through homestays. The first official Homestay programme began in the east coast state called Pahang in 1988 named Desa Murni Homestay which consists of five villages namely as Desa Murni Sanggang, Desa Murni Sonsang, Desa Murni Kerdau, Desa Murni Ketam and Desa Murni Perangap (Pusiran & Xiao, 2013) . Today, villages that wish to venture into the homestay business needs to be officially registered with the Ministry of Tourism, Arts, and Culture [MOTAC] and adhere to a set of guidelines. The homestay guidelines stipulates that a minimum of 10 homes within either one or several neighboring villages need to combine efforts to host groups of tourist to their homestay (MOTAC, 2015).

In a registered Malaysian homestay, tourist would experience daily living with their host's family. Apart from living with the hosts in their homes, outdoor and cultural activities are organized to allow tourists to experience the village lifestyle. The activities that are usually organized for the groups of tourist include rubber tapping, paddy planting, and harvesting, fishing using traditional methods along with experiencing cultural and culinary delights unique to each destination like cooking demonstrations, playing traditional games and participating in dances and mock wedding ceremonies.

To develop the homestays, the Malaysian Government undertook various efforts to ensure the success of the homestays. In 1995, under the National Plan for Rural Development, the government took key measures in developing the homestays in term of funding and training (Liu, 2006). The Ministry of Tourism, Arts, and Culture (MOTAC) provided funding to grow and expand the Malaysian Homestay programme with the condition that rural residents take on the responsibilities as homestay coordinators, owners, operators, and suppliers (Liu, 2006). All homestay owners have tourism and hospitality training coupled with educational awareness programs on ways to take advantage of the existing natural resources, cultural and heritage assets within the community to become a tourism product.

Preceding the APEC Tourism Charter in 2000, the Rural Tourism Master Plan

2001 was formulated and in 2006, the ninth Malaysian Plan incorporated homestay tourism product as an official mechanism to boost rural tourism (Pusiran & Xiao, 2013). Further government funding was provided totaling RM40 million from 2006 to 2010 (Pusiran & Xiao, 2013). A second stimulus package of RM10 million was also allocated to upgrade the homes and the facilities offered. The third injection was from the Ministry of Rural and Regional Development totaling RM6.7 million for infrastructure development of the rural communities (Pusiran & Xiao, 2013). This support was intended to boost this tourism component to local and international tourists.

With the extensive government support, the number of operators grew steadily from the years 2006 to 2008 and plateaus from 2009 onwards. The average growth rate of this program since 2006 as indicated in Table 1, is 12.3% over the 10 year period from 2006 to 2015 (Ahmad et al., 2014; Che Leh, & Hamzah, 2012; Kayat, 2008; MOTAC, 2015; The Star Online, 2013).

The growth of the homestay program was also promising in terms of tourist arrivals and receipts. Table 2 displays homestays' positive growth in terms of a number of tourist arrivals and receipts from 2006 to 2015. The average contribution of total tourism receipts to the Malaysian GDP for the years 2008 to 2014 is 12.4% (Department of Statistics Malaysia, 2014). The homestay accommodation components' contribution towards the Malaysian GDP is 0.03% (Department of Statistics Malaysia, 2014) which indicates that this is a product that contributes positively to the tourism industry. The government has projected that homestays will contribute 5% of total tourism revenue by 2020 (Bhuiyan et al., 2013). With strong support from the government, homestays should be a sustainable tourism

Table 1

Number of homestay operators in Malaysia from 2006 to 2015

Year	Number of Operators	% Change
2006	1939	
2007	2533	23
2008	3034	17
2009	3283	7
2010	3005	-9.25
2011	3211	6.4
2012	3424	6.2
2013	3431	1.8
2014	3519	2.6
2015	3653	3.8
	Average change	12.3

Source: Ahmad et al. (2014), Che Lah et al.(2012), Kayat (2008), MOTAC (2015), and The Star Online (2013)

Table 2

Tourist arrival and receipts to Malaysian homestays

Year	International	Domestic	Total Arrivals	Total Receipts
2006	14,458	24,507	38965	$2,065,980
2007	21,368	51,055	75562	$4,923,433
2008	23,117	68,416	91533	6,252,213
2009	31,523	130,038	61305	10.9m
2010	49,126	147,346	196,472	12.4 m
2011	59,657	195,324	254,999	15.7m
2012	65,835	259,423	325,258	18.55m
2013	62,847	288,107	350,954	21.5m
2014	71,034	296,439	339,360	21.7m
2015	64,599	280,538	345,137	25.2m

Source: Bhuiyan et al. (2012), Economic Planning Unit (EPU) (2013), Jamal and Othman (2011), MOTAC (2012, 2015), Performance Management and Delivery Unit (PEMANDU) (2013)

component that contributes economically to the tourism industry. The focus of this paper is to determine the significance of the relationship between three specific economic sustainability measures which are destination competitiveness, employment and multiplier effect to homestay sustainability.

Homestay and Tourism Economic Sustainability

Tourism economic sustainability is commonly measured using direct and indirect revenue and financial measures (Weaver & Lawton, 2010). Direct economic measures include tourism arrivals, tourism receipts, taxation revenue, contribution to GDP, profits, the rate of return to operators, gross operating surplus, contribution to gross value added, and contribution to net benefit. Indirect revenue measures include the ongoing circulation to income

within the destination or the multiplier effect, employment, regional development, revenue leakages and domestic sectoral linkages (Roberts & Tribe, 2008; Weaver & Lawton, 2010). In a study by Roberts and Tribe (2008) indirect economic measures identified within small tourism enterprises in Tobago included management training, access to finance, business performance, financial leakages and sectoral linkages and the quality and quantity of employment. For the purpose of this research, three specific measures or indicators have been selected to measure the economic sustainability. The reason these indicators have been selected is to determine the extent that the three identified issues surrounding the program that affect homestay sustainability. Destination competitiveness is intended to measure the issue of competition from unregistered homestays. Employment is

intended to measure the extent of local community employment and multiplier effect is to ascertain the overflow of the economic benefit of homestays to the local village.

Destination Competitiveness

The first issue is the competition between the registered and unregistered homestay operators. Registered homestays are licensed formally by MOTAC and unregistered homestay operators are homes that are self-acclaimed 'homestay' and have not been registered with MOTAC. These unregistered homestays do not offer the "live-in" with the hosts coupled with the cultural activities as offered by the registered homestays (Guttentag, 2013). In addition, the unregistered homestay operators have a strong internet presence (Guttentag, 2013). Globally, the advent of unregistered homestay began with the influence of Internet-based companies like Airbnb and Couchsurfing from the United States that allows ordinary people to offer tourism accommodation without being registered for business as a cheaper and more easily accessible alternative to the registered homestays (Guttentag, 2013). Similar issues were evident with the rise of the Online Travel Agents (OTAs) that caused the decline of traditional travel agents who lost a major portion of their market share to the OTAs (Guttentag, 2013). Thus, the strong internet presence of the unregistered homestays alongside the registered Malaysian homestays creates competition between the Malaysian

homestay and unregistered homestays. To measure the extent of this competition, destination competitiveness was used as the first indicator.

Destination competitiveness is the ability of the organization to maintain its market position and share and to improve it over time (d'Hartserre as cited in Dwyer & Kim, 2003). A competitive destination is superior in its appeal and experience offered to tourists in comparison to other destinations (Dwyer & Kim, 2003). Crouch and Ritchie (1999) state that 'what makes a tourism destination truly competitive is its ability to increase tourism expenditure, to increasingly attract visitors, while providing them with satisfying, memorable experiences, in a profitable way. Destination competitiveness also enhances the well-being of destination residents and preserve the natural capital of the destination for future generations and is related to the economic prosperity of the residents (Buhalis, 2000; Crouch & Ritchie, 1999; Dwyer & Kim, 2003).

Based on the Calgary Model, destination competitiveness can be assessed based on four elements (Crouch & Ritchie, 1999; Dwyer & Kim, 2003). These elements include natural and artificial resources (comparative advantage or core resources), tourism infrastructure (competitive advantage or supporting factors), destination management, and qualifying determinants (Crouch & Ritchie, 1999; Dwyer & Kim, 2003). Hong (as cited in Pulido-Fernandez et al., 2014) added the elements of destination policy and planning and development.

The first element that determines destination competitiveness is a comparative advantage or a destinations' climate, scenery, flora, and fauna. For example, the comparative advantage is evident in Homestay Pachitan, Negeri Sembilan which is a rubber plantation located at the sea mouth. In contrast, Homestay Gopeng, Perak which is close to Kampar River and Tempurung Cave offers the scenery of the river and cave unlike other homestays (Liquid Design Studio, 2015). The second element of destination competitiveness is the destinations' competitive advantage or infrastructure. Examples include hotels, attractions, transport, network, festivals and events, quality of management, the skill of workers, government policies and more (Dwyer & Kim, 2003). The competitive advantage or the supporting advantage of most registered homestays is the availability of the supporting facilities namely common hall or 'balai raya' and the display of the cultural heritage through cultural events and cultural games and sports, unique to each homestay village. In addition, tourist to homestays attest to the friendliness, welcoming and local community participation in the activities and events (Jamal & Othman, 2011) The third element of destination competitiveness is destination management that includes activities to enhance the appeal and quality of the comparative and competitive advantages of the destination while working within the qualifying determinants like location, overall costs, and safety (Dwyer & Kim, 2003; Enright & Newton, 2004).

These efforts are entrusted to the homestay committee and national and state level MOTAC and the state level Homestay Associations.

The quality of management also determines destination competitiveness. The quality of management refers to leadership style of the homestay coordinator or committee assigned to take leadership (Dwyer & Kim, 2003). The leadership skills of the homestay coordinators, homestay owners, and the training and support provided by MOTAC on ways to upkeep a home and serve customers in a hospitable manner all contribute to destination competitiveness.

Profitability is also an element that determines destination competitiveness. Profitability can be assessed from tourist arrival and receipts at the macro scale. At the micro scale, an illustration of profitability at one homestay named Homestay Pelegong, Negeri Sembilan is depicted in Table 3 and Table 4. The profit for the association or the homestay committee treasury account was RM300. The profit was for 20 guests for one night and two days stay at the price of RM110 per person. The profits obtained equated to 14% of the total earnings (RM300/ RM2200). From the individual homestay owner perspective, reported profits of RM17 based on the price of RM40 and costs of RM 23 (Kayat, 2010). Each operator will typically have 1 to 3 guests per visit resulting in profits of RM17 to RM 51 per visit (Kayat, 2010).

The competitiveness of the Malaysian homestay is determined using comparative advantage, competitive advantage, and

profitability as measures. Past literature had established that destination competitiveness had a significant impact on economic growth in less competitive destinations (Webster & Ivanov, 2013). Cucculelli and Goffi (2016) had revealed a significant relationship between economic sustainability and small destination competitiveness. Dwyer and Kim (2003) also reported the relationship between destination competitiveness and economic prosperity. Past findings indicated the significance in the relationship between destination competitiveness and the economic dimension. The significance in the relationship between destination competitiveness and homestay sustainability increased the likelihood of Malaysian homestays being a sustainable tourism component.

Table 3

Costs and profits to the association (20 Visitors)

Receipt from 20 pax guests (RM110 per pax, one night and two days stay)	RM2,200
Less: Payment to operators = RM40 x 20 pax x 1	RM800
Less: Welcome drink	RM50
Less: Morning tea	RM50
Less: Transportation	RM30
Less: Cultural show	RM650
Less: Village tour	RM100
Less: Management	RM220
Profit to the Association	RM300

Note: Adapted from Kayat (2010)

Table 4

Costs and profits to the individual operator (1 visitor)

Receipt from a guest	RM40
Less: Costs of meals, electric & water	RM23
Profit to individual operator	RM17

Note: Adapted from Kayat (2010)

Local Community Employment

The second issue is the employment opportunities for the local community and reduction in the unemployment rate in the rural communities. Employment as an indirect economic indicator is defined as job creation as well as equal employment for the local people and the poor (Wanhill, 2000). Employment was measured by the number of jobs created to reduce the unemployment rate. Small businesses had the potential to reduce unemployment within nations (Wanhill, 2000). Homestays are small tourism business that has been initiated by the government to employ rural communities solely dependent on agriculture or farm-

based industry. Indirect employment was also evident as homestay owners hired locals to assist in the caretaking of the homestay, cooking and cleaning, transporting guests and acting as tour guides (Kannegieser, 2015; Kayat, 2010). Tourists would also create employment opportunities for small-scale local handicraft, food and traditional medication producers as the tourist would seek to purchase local souvenir items (Kayat, 2010). Past literature by Bhuiyan et al. (2012) indicated that Malaysian homestays were mostly managed and operated by the homestay owner and family members. Five out of the ten homestays surveyed in the research conducted had 1 to 2 employees. In contrast to this finding is the success of the Miso Walai Homestay, Sabah that created 206 tourism-related jobs and 34 homestays operator jobs for the local community in 2012 (Mohamad & Hamzah, 2013). With higher employment opportunities, the positive impact of local community employment is maximized.

Multiplier Effect

The third issue is the extent of the overflow or tourism multiplier effect of the program in providing economic benefits to the village. Homestay multiplier was defined as the amount of money leaving or entering the tourism destination as each sector within a destination was assumed interdependent (Weaver & Lawton, 2010). Small tourism businesses have higher income multiplier effect in contrast to larger businesses (Incera & Fernandez, 2015; Liu & Var, 1982; Roberts & Tribe, 2005). Thus, tourist

spending will directly resulted in positive economic impacts (Roberts & Tribe, 2005). The multiplier effect of homestays was the amount of tourist dollar spent to consume the products at homestays and the monies retained within the homestays rather than leaving the homestays. The entire community within the village was able to benefit by either becoming a host or a tourism supplier. The first round of indirect impact was when the payment was made by the tourist, items were purchased by the operator, and wages were paid to employees. The second round of impact was when the operators purchased supplies for their use (Weaver & Lawton, 2010).

A case study on Kampung Pelegong Homestay program by Kayat (2010) resulted in low leakage or high multiplier effect as the income generated from tourists was paid to helpers within the community. In a recent study by Shahudin et al. (2017) the findings revealed the homestay multiplier effect of homestays within the state of Selangor in Malaysia was 1.57 for Type 1 Output Multiplier and 2.19 for Type 2 Output Multiplier. Studies on multiplier effect for rural economies indicated a multiplier range value between 1.12 to 1.35 and 2.00 to 3.40 for medium to large industrialized destinations (Weaver & Lawton, 2010). These results indicated the change in the output due to the increase in tourist expenditure and the expenditure circulates within the homestay with little leakage outside (Cooper et al., 2008; Shahudin et al., 2017).
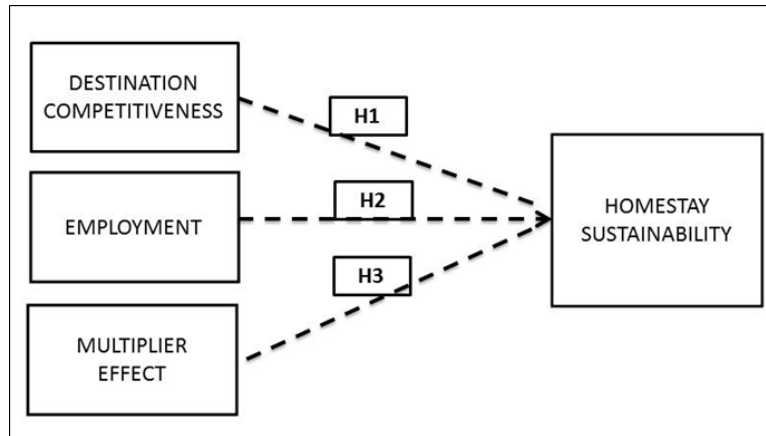
Figure 1. Conceptual framework

The three issues; competition from unregistered homestays, employment, and the multiplier effect form the independent variable for this study. The dependent variable used in this research is homestay sustainability. The definition of homestay sustainability was derived from the theory of development and concepts of sustainable tourism. The theory of development focused on human improvement processes that reduced the gaps between the rich and the poor globally. The concept of sustainable tourism was the application of the theory of development to the tourism industry. This concept held a holistic view considering four dimensions; economic, institutional, environmental, and sociocultural (EIES) dimensions in minimizing negative EIES impacts and maximizing positive EIES impacts for the future generation (Butler, 1999; Weaver, 2006; World Commission on Economic Development [WCED], 1987). However, for the purpose of this research, homestay sustainability was defined as the application of sustainable tourism to the homestay sub-component to minimize the negative economic impact and maximize the positive economic impact of homestay activities to meet the tourism development needs of the present tourism stakeholders without compromising the ability of future generations of tourism stakeholders' to meet their own needs. Based on the literature reviewed (Hall, 2011; Holladay & Powell, 2013; United Nations Environmental Programme and the World Tourism Organization [UNEP & WTO], 2005; Weaver & Lawton; 2010), suitable indicators used to measure homestay sustainability includes socio-economic development, leadership competence, environmental and local culture and heritage conservation and level of stakeholder participation. Figure 1 is a diagram of the conceptual framework for this study.

MATERIALS AND METHODS

This research employed a quantitative method driven by the desire to test the correlation between the predictor and

outcome variables to result in numeric data for statistical testing. Data was collected from 354 homestay owners from the states of Negeri Sembilan, Perak, Johor, and Kedah. Within the 13 states in Malaysia, using probability cluster sampling method, the seven (7) states of Johor, Negeri Sembilan, Perak, Kedah, Pahang, Terengganu, and Sarawak were the intended homestay clusters to be researched. Each cluster was labeled zero or one and the states labeled zero were the states selected for the researcher to visit. There were distance, costs, and time limitations in data collection from the states of Pahang, Terengganu, and Sarawak.

Data was collected using a survey questionnaire. The survey questionnaire was adapted and adopted from the UNWTO Sustainable Tourism for Development Guidebook (UNWTO, 2013) and numerous past literatures. Pre-testing of the survey questionnaire was conducted on 30 participants and based on the results pre-test results, the survey was further refined. To access the reliability and internal consistency of the survey questionnaire, the resulting data of the pre-test was subject to internal consistency measures using the Cronbach Alpha tool in SPSS. The pre-test Cronbach Alpha was found to be between 0.628 and 0.896. Klein (1998) stated that a value above 0.7 was reliable. Sekaran (2003) stated that a Cronbach's Alpha close to one, indicated higher internal consistency reliability. The Cronbach Alpha was re-analyzed for each variable. After the questionnaire had been amended. The post-test questionnaire showed reliable Cronbach Alpha results above 0.8 for most items.

The refined survey questionnaires were administered and posted in advance to the homestay coordinators for the homestay owners to self-administer. The researcher then visited the homestays within a 2-week period for data collection, a semi-formal interview, and observation of the homestays. The statements in the questionnaire were answered using a 5-point Likert scale. A 5-point Likert-scale rating was chosen over a 4,6,7,8, or 11-point Likert scale because a 5-point Likert scale was commonly used, resulting in a better variance, lower response bias, statistical power, Type I and Type II error rates and estimation of significance or effect sizes in multivariate testing in comparison to the four-point Likert scale (Eutsler & Lang, 2015). Although a 7 or 11-point Likert scale is ideal for behavioral research (Eutsler & Lang, 2015; Leung, 2011) the majority of respondents with secondary school education is likely to respond more accurately to a simple 5-point Likert scale rather than a 7-point Likert scale.

Using cluster sampling, the questionnaire was administered to the homestay owners. The population size is 3653 homestay owners. The required minimum sample size totals 119 homestay owners determined through the use of G*power analysis tool (Hair et al., 2014). Power analysis is the assessment of the effect size for each regressing analysis using power tables created by Cohen (1988) or Green (as cited in Goodhue et al., 2012). To derive

the minimum sample size, the alpha was set at 0.05, power at 0.95 and the number of predictors that affected the dependent variable was three independent variables. The result yielded a minimum sample size of 119 samples intended for this research (Hair et al., 2014).

In addition, for structural equation modeling analysis, there are several rules of thumbs. The commonly used method is the "ten times rule" or "five times rule" which states that the sample size should be ten times or five times the number of incoming paths to the construct with most incoming paths (Chin & Newsted as cited in Goodhue et al., 2012). For this study, the sample size based on the "ten times rule" was 30 sample respondents and for the "five times rule" was 15 respondents. These rules were accepted in the field of information systems and social science if there was high reliability of measurement items and strong effect size (Goodhue et al., 2012). Therefore, a minimum sample size of 119 homestay owners was adequate for a population size of 3653. The total respondents for this study were 254 which were above the minimum sample size.

The data collected was then analyzed using a four-step data analysis method. This process includes: (1) getting the data ready for analysis, (2) getting a feel for the data, (3) testing the goodness of data, and (4) testing the hypothesis. The process of getting the data ready for analysis includes the process of data coding, entry, and editing, the process of data screening. Data were coded and entered using SPSS. Coding

of data was done after the pre-testing to ease the data entry process. Coding of the questions or variables was conducted using alphanumeric values. The answers were coded based on the values on the five-point Likert scale. After entering the data into SPSS, data editing was performed to detect errors in the data entry process. Acceptable level of missing data according to Cohen and Cohen (1983) was 10% that was likely to be problematic in data interpretation from the studies. Hair et al. (2014) differed in stating that if the missing data exceeded 15%, observations were removed from the data file. Hair et al. (2010) recommended the use the hot deck case substitution, regression methods for missing completely at random (MCAR) data and model-based method for missing at random (MAR) missing data when the missing data was between 10% to 20%. The missing data values in this study ranged from 0.4% to 13.8% and were rectified using the Expectation Maximization (EM) method using SPSS. The EM method can accommodate both non-random and random missing data processes and data with a high percentage of missing data. In addition, it is also the best representation of the original distribution of values with the least amount of bias that ensures generalizability (Hair et al., 2010). The rectification was easily achieved with the EM method.

The second stage in the data analysis process is to get a feel of the data. This study conducts the descriptive assessment of the main variables for a basic understanding of the data, involving the mean and standard

deviation of each variable using SPSS. The results of the assessment were based on the average mean values. Average meant values of zero to one indicated strong disagreement with the statements, 1 to 2.999 indicatesd disagreement with the statements. Average meant of 3 to 5 indicated agreement to the statements in response to measuring homestay sustainability.

In the descriptive assessment in Table 5, the first indicator measured was destination competitiveness. From the perspective of the homestay owners, they were confident that the homestays were a competitive destination with the highest mean score of 4.299. Homestay owners agreed that registered homestays were preferred over unregistered homestays. The second highest mean of 4.220 was the homestay owners' response to homestays offering a unique product for the tourists. Homestay owners agreed that the infrastructure was sufficient and the profits of the program were attractive

with a mean of 3.976 and 3.642. Thus, from the perspective of all of the 254-homestay owners, most respondents agreed that homestays were a competitive destination.

The second indicator for the economic dimension was employment. Homestay owners agreed that the employment opportunity had increased and every age group in the community had benefits with job employments with a mean of 4.028. Homestay owners agreed that employment opportunity in the village had increased because of the homestay program with a mean of 3.813. However, most homestay owners disagreed with the fact that the jobs created were primarily for women with an average of 2.614. The standard deviation for this response was higher than all other responses.

The third indicator measuring the economic dimension is the multiplier effect. Homestay owners agreed that the money collected from tourists was paid to

Table 5

Descriptive assessment destination competitiveness, employment, multiplier effect and homestay sustainability from the homestay owners' perspective of homestay sustainability

Indicator	Item	Stakeholder	Homestay Owners		
		Descriptive Statistics	N	Mean	Std. Dev.
Destination Competitiveness	ED1	Homestay programs offers natural or man-made attractions that is unique	254	4.220	0.469
	ED2	Homestay programs have infrastructure to support its main tourist attractions	254	3.976	0.694
	ED3	Homestay programs gets attractive profits	254	3.642	0.872
	ED4	Registered homestay is preferred over unregistered homestay	254	4.299	0.545

Table 5 (Continued)

Indicator	Item	Stakeholder	Homestay Owners		
		Descriptive Statistics	N	Mean	Std. Dev.
Employment	ED5	Employment opportunity in the village increases because of the homestay program	254	3.813	0.833
	ED6	Every age group is employed within the homestay program	254	4.028	0.644
	ED7	The jobs created are primarily for the women in the village	254	2.614	1.010
Multiplier effect	ED8	The revenue generated from the homestay program benefits the community	254	4.000	*0.576*
	ED9	The money collected from tourist is paid to the homestay owners	254	4.189	0.730
	ED10	The supplies purchased for the homestay program is from local village vendors	254	3.874	0.677
	HS1	The homestay program has improved the social and economic status of all involved	254	3.964	0.612
	HS2	The homestay owner, government, tourist and local community has positively benefited from the program	254	4.142	0.506
Homestay Sustainability	HS3	The homestay program was managed properly	254	4.188	0.520
	HS4	Leaders motivate their subordinates to think beyond their self-interest	254	4.032	0.622
	HS5	Homestay preserves the environment from pollution and degradation	254	4.163	0.520
	HS6	Homestay preserves the local culture and heritage for the future generation	254	4.335	0.521
	HS7	Stakeholders feel empowered in decision making and policy implementation of homestays	254	3.941	0.629
	HS8	Stakeholder are actively participating in decision making and policy implementation of homestays	254	3.984	0.518
	HS9	The homestay program will continue for the next generation	254	4.291	0.481

the homestay owners and revenue from the homestay program benefited the community with mean averages of 4.189 and 4.000. The leakage to the community resulted in an average of 3.874, in which homestay owners agreed that the supplies purchased for the homestay program were from local village vendors. Thus, the monies generated were spent within the community suppliers confirming the multiplier effect of the homestay program.

The dependent variable; homestay sustainability had resulted in homestay owners in agreement to all of the statements related to homestay sustainability. The highest mean average of 4.335 was in response to whether homestays preserved the local culture and heritage for the future generation. All homestay owners agreed with this statement. The statement with the second highest mean average was 4.291, in which most homestay owners agreed that the homestay program would continued for the next generation. The third highest mean was on the on the issue of leadership competence and if homestays were managed properly resulting in a mean of 4.188 as most homestay owners believed that homestays were managed correctly. The lowest mean was the statement on whether stakeholders feel empowered in decision-making and policy implementation with a mean average of 3.941, where homestay owners agreed to this statement. Thus, this indicated that from the perspective of the homestay owners, there was a significant relationship with homestay sustainability.

In summary, the homestay owners agreed that the registered Malaysian homestays were a competitiveness destination, homestays create job opportunity for every age group, and there was the multiplier effect of the revenue generated that benefited the community and the homestays owners. Therefore, about the research objective and research question, the assessment from the perspective of homestay owners using mean values indicated significance between the destination competitiveness, employment and the multiplier effect and homestay sustainability.

The next stage of data analysis was to use SEM-PLS test and confirmed the hypothesis. PLS-SEM is a suitable tool for data analysis because it is flexible with no stringent rules in terms of the requirement for multivariate normality of data, sample size, reflective constructs, and strong theoretical knowledge about the model tested (Hair et al., 2014). The hypothesis was developed based on the problems identified and research question. Structural Equation Modeling(SEM) was employed to examine the significance of the following hypothesis :-

H1: There is significant positive relationship between destination competitiveness and homestay sustainability

H2: There is a significant positive relationship between employment and homestay sustainability

H3: There is a significant positive relationship between multiplier effect and homestay sustainability.

RESULTS AND DISCUSSIONS

Prior to testing the hypothesis, the goodness the measures assessed by confirming construct validity and reliability (Ramayah, 2015). Construct validity determines if the survey used fits the theories applied in the creation of the survey instrument (Sekaran, 2003). Table 6 and 7 are both intended to determine construct validity and reliability. Firstly, to determine construct validity, the loadings need to be assessed to determine if items were significant. Hair et al. (2014) stated that items with a loading that was higher than 0.4 on two or more factors had significant loading and construct validity. The results in Table 6 below, items ED7 and ED10 were below the cutoff value of 0.4, indicated that these construct were insignificant.

Table 6

Results of measurement model from the homestay owner perspective before removal of items with low outer loading

Construct	Measurement Item	Loading	CR	AVE
Destination Competitivness	ED1	0.831	0.731	0.417
	ED2	0.540		
	ED3	0.457		
	ED4	0.691		
Employment	ED5	0.536	0.587	0.386
	ED6	0.784		
	ED7	0.106		
Multiplier Effect	ED8	0.784	0.639	0.410
	ED9	0.746		
	ED10	0.240		
Homestay Sustainability	HS1	0.535	0.863	0.415
	HS2	0.662		
	HS3	0.605		
	HS4	0.673		
	HS5	0.716		
	HS6	0.741		
	HS7	0.589		
	HS8	0.562		
	HS9	0.681		

Construct validity was further assessed through the results of the convergent and discriminant validity. Table 6 and Table 7 reflects the convergent validity results by item loading, composite reliability (CR) and average variance extracted (AVE) before and after the removal of items with a low outer loading value.

The convergent validity as displayed or the extent a measure correlates positively with alternative measures of the same construct was depicted in the factor loading in Table 6 and 7. In addition to the factor loading that was assessed in Table 6, the AVE value measured the variance captured by the indicator relative to the measurement error (Hair et al., 2014). The recommended value for the AVE should be greater than 0.5 to justify using a construct. The AVE value reported in Table 6 is below 0.5 for all the constructs, thus the constructs with low loading were eliminated one by one

to increase the AVE value. In Table 7, the result of eliminating the constructs with low loading had enabled the remaining constructs to reach the cutoff value of 0.5 When the AVE value is above 0.5, the remaining construct explains more than half of the variance of the indicator and on average less errors remain in the items than the variance explained by the construct (Hair et al., 2014). Thus, the factor loading and AVE results in Table 7 indicated that the assessment of convergent validity for the remaining constructs as statistically significant.

Discriminant validity was the extent to which a construct was truly unique from other constructs by empirical standards. To assess discriminant validity, the Fornell-Larcker criterion results was used to determine discriminant validity. The results from SEM-PLS indicated that the square root of each indicator was loaded more strongly on

Table 7

Results of measurement model from the homestay owner perspective after removal of items with low outer loading

Construct	Measurement Item(s)	Loading	CR	AVE	Discriminant Validity
Destination competitivness	ED1	0.796	0.773	0.533	Yes
Employment	ED6	0.718	1.000	1.000	Yes
Multiplier effect	ED8	0.671	1.000	1.000	Yes
Homestay sustainability	HS2	0.656	0.864	0.516	Yes
	HS3	0.671			
	HS4	0.732			
	HS5	0.798			
	HS6	0.768			
	HS9	0.680			

its own construct than the correlation with the other constructs as displayed in Table 8. This result indicated discriminant validity was established. Thus, the constructs used were valid and statistically significant.

Reliability or the consistency of the instrument used in the event the instrument is re-used to a homogeneous group of respondents (Hair et al., 2014). The results of composite reliability (CR) in Table 9 indicate a threshold value of 0.6 which is above the acceptable level of reliability. The table also listed the measurement items used after removal of items with low outer loading values in which three of the constructs are single item measures. The overall assessment of validity and reliability of each construct had resulted in each construct demonstrating significant validity and reliability. The next stage of assessment was the assessment of the structural model. Figure 2 represents the assessment of the structural model from the homeowner's perspective.

The first step in assessing the structural model was to access collinearity as reflected in Table 10. The results of the VIF for the structural model were below 5.00 indicated no issues of multi-collinearity or misleading results for the structural model (Hair et al., 2014).

Table 8

Discriminant validity of first-order constructs from the homestay owner perspective

	DC	EM	HS	ME
DC	1			
EM	0.373	1		
HS	0.417	0.198	0.718	
ME	0.205	0.352	0.311	1

Note: Values on the diagonal (bolded) represents the square root of the AVE while the off-diagonals are correlations

Table 9

Results of reliability test

Construct	Measurement Item(s)	CR*	Loading	Number of items
Destination competitivness	ED1	0.773	0.796	1 (4)
Employment	ED6	1.000	0.718	1 (3)
Multiplier effect	ED8	1.000	0.671	1 (3)
Homestay sustainability	HS2,HS3 HS4, HS5 HS6, HS9	0.864	0.656	6 (9)

Note: Final item numbers (initial numbers)

Table 10

Collinearity assessment

Construct	VIF
ED1	1.000
ED6	1.000
ED8	1.000
HS2	1.370
HS3	1.512
HS4	1.900
HS5	2.242
HS6	1.655
HS9	1.423

The second step was to access the structural model path coefficient. Figure 2 of the PLS-SEM structural model results for homestay owner group's results in a R^2 value of 0.227 which indicates that 22.7% of the variance in homestay sustainability is explained by the three constructs of destination competitiveness, employment, and multiplier effect. Destination competitiveness has the strongest relationship with homestay sustainability followed by multiplier effect. A closer look suggests that from the homestay owner's perspective, as reflected in Table 11 that presents the path coefficient (β) and significance for the structural model of the 254-homestay owners. Thus H1 and H3 was supported but H2 was not.
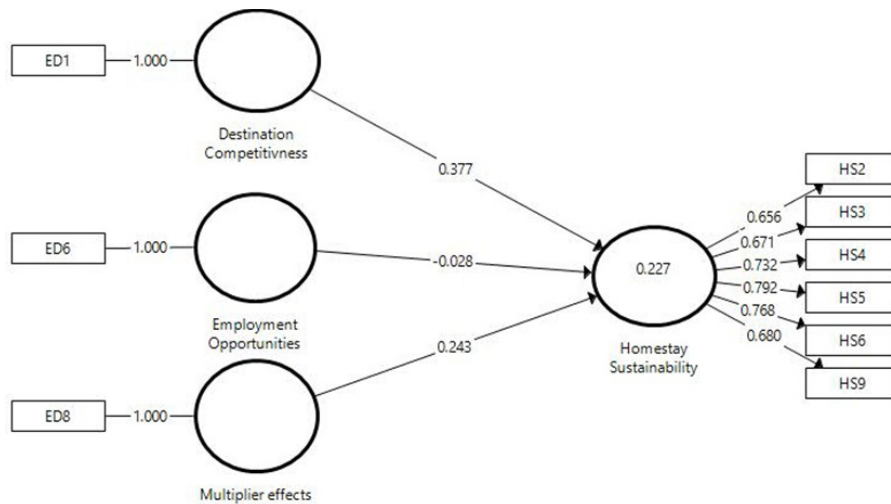

Figure 2. Structural model path coefficient of homestay owners

Table 11

Path coeffecients and hypothesis testing for homestay owner

Hypothesis	Relationship	Beta *(β)*	Standard error	t-value	Decision	R^2
H1	DC→HS	0.381	0.062	6.085	Yes	0.227
H2	EM→ HS	-0.024	0.073	0.387	No	
H3	ME→ HS	0.242	0.057	4.241	Yes	

Note: Test of significance at :-
*** $p<0.01$, t-value is greater than 2.33
 ** $p<0.05$, t-value is greater than 1.645
  * $p<0.1$, t-value is greater than 1.28

The PLS results in Table 11 displays that from the perspective of homestay owners, there a significant positive relationship between destination competitiveness ($β= 0.381$, $p<0.01$) and multiplier effects ($β= 0.242$, $p<0.01$) and homestay sustainability. Overall, H1 and H3 of the study was supported from the perspectives of the homestay owners indicating the higher the values from destination competitiveness and multiplier effect, the higher the degree of homestay sustainability. However, H2 was not supported from the perspective of the homestay owner ($β= -0.024$, $p>0.01$), indicating an insignificant or negative relationship between employment and homestay sustainability.

Past research by Bhuiyan et al. (2013), Pulido-Fernandez et al. (2014), and Roberts and Tribe (2008), that had established a relationship between the economic dimension and tourism sustainability. Research findings by Webster and Ivanov (2013) suggested destination competitiveness had no statistically significant impact on the economic growth in competitive destinations but had significance

in less competitive destinations. This finding was further supported by Cucculelli and Goffi (2016) that there was a relationship between economic sustainability and small destinations' competitiveness. Dwyer and Kim (2003) also suggested destination competitiveness results in economic prosperity. Thus, the descriptive analysis and hypothesis findings of this study from the perspective of the homestay owner view are consistent with the literature in that the economic indicator destination competitiveness significantly relates to homestay sustainability as homestay are less competitive and are small destinations in comparison to other larger tourism components in Malaysia.

Past literature by Bhuiyan et al. (2012, 2013); Che Leh and Hamzah (2012); Kumar et al. (2012), and Mohamad and Hamzah (2013) confirmed that employment opportunities had increased with homestays. However, the hypothesis findings of this study suggest that employment is not significantly related to homestay sustainability. The descriptive analysis and hypothesis findings of this study provide more insight than

past literature because the insignificant relationship was due to the number of people employed in most homestay programs were small and insignificant. Most homestays programs comprised mainly of the village committee and homestay owners. Past literature by Bhuiyan et al. (2012) indicated that Malaysian homestays were mostly managed and operated by the homestay owner and family members and five out of the ten homestays surveyed in the research conducted had 1 to 2 employees. Thus, in 2016, the recorded numbers of homestays were 3800 and the number of jobs created would range between 3800 to 7600 jobs for the entire homestay program in Malaysia (MOTAC, 2016). The total number of job created by the tourism industry in 2016 was 3.2 million jobs (Department of Statistics Malaysia, 2017). Thus, the homestay program in Malaysia contributes to 0.2% of employment to the tourism industry which was an insignificant value.

Finally, the descriptive analysis and the third hypothesis about significance in the relationship between multiplier effect and homestay sustainability, the findings of this study concured with past findings by Kayat (2010) and Shahudin et al. (2017). The multiplier effect had a significant relationship with homestay sustainability. These results translated to low leakage outside the local village and increased opportunities for ancillary business to support the homestay program. Thus, revenue and profit generated from the program were retained within the village as revenue generated was used to pay local

suppliers and the cultural showed and tour organizers (Kayat, 2008).

CONCLUSION

This study concludes the significance in relationship between two of the three indicators tested against homestay sustainability which includes destination competitiveness and multiplier effect. The significance in relationship between destination competitiveness and homestay sustainability indicates that homestays are a viable and beneficial to homeowners in spite of the current competition from the unregistered homestays. Secondly, the significance in relationship between multiplier effect and homestay sustainability indicates there is minimal financial leakage outside of the local village or positive multiplier effect to the local community. There is no significance in relationship between employment and homestay sustainability because the employment opportunities provided by the homestay program is insignificant compared to other tourism components namely retail and food and beverage that creates most of employment within the tourism industry.

This finding is important to the stakeholders who are directly impacted economically which includes the homestay owner, government and local residents for the future development of Malaysian homestays. For the homestay owner, registered homestays should intensify their competitiveness. In the process of intensifying competitiveness, the homestay committee and the homestay owners in

collaboration with the state level Homestay unit would need to identify the unique comparative advantages of homestays. Comparative advantages that appeal to tourists, motivates tourists to return to the Malaysian homestay (Dwyer & Kim, 2003) which is the friendliness, welcoming and local community participation in the activities and events (Jamal & Othman, 2011). If the homestay program in Malaysia can manage this comparative advantage of the homestay component, more tourists would be attracted to Malaysian homestays. In addition, federal and state level marketers of the homestay product should focus their promotional efforts on the sociocultural aspects of friendliness, welcoming and local community participation. In addition, the multiplier effect is proven and all stakeholders' have benefited economically from the homestay program as the monies generated is circulated within the community as opposed to outside the community.

Thus, the homestay owners' efforts are not in vain and have a positive outlook with potential to increase the total tourism arrivals, receipts and the average contribution to the GDP. Further area of research includes using testing the relationship between other economic indicators like regional development, revenue leakages, and domestic sectoral linkages with homestay sustainability.

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