AN INVESTIGATION ON RESIDENTS’ SUPPORT OF TOURISM DEVELOPMENT IN PENANG, MALAYSIA

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Abstract:
This study demonstrates the adaptation of Social Exchange Theory (SET) to examine the relationship between community attachment, community involvement, residents' place image, perceived benefits, perceived costs, and residents' support of Penang sustainable tourism development. A total of 196 data were collected face-to-face by a self-administered questionnaire to residents who live in George Town, Penang, Malaysia. A partial least squares (PLS) analysis was applied to assess the measurement model and the structural model. The proposed model showed useful predictive and explanatory power. Community involvement exhibited a significant effect on residents' support of tourism development. Surprisingly, community attachment, residents' place image, perceived benefits, and perceived costs were found to be insignificant to residents' support. There is a positive relationship between community attachment and residents' place image with perceived benefits and perceived costs. On the contrary, the influence of community involvement towards perceived benefits and perceived costs were not supported. The findings of this study provide a better understanding of the factors that influence residents' support on sustainable tourism development in Penang, Malaysia. Additionally, this study also provides insightful implications to regulatory bodies, owners of tourism businesses, and property developers.

Keywords:
Residents Support, Tourism, Social Exchange Theory, Penang, Malaysia
Introduction
Tourism has been identified as the key industry in the Malaysia service sector for a couple of years. Within Malaysia, one of the most visited states by tourists is Penang. In 2019, Penang state recorded a total of 7.55 million domestic and international tourists, which was a 10% increase when compared to 2018 (Lo, Pfordten, & Devi, 2020). In 2008, George Town, Penang, was recognised as a UNESCO World Cultural Heritage Site (WHS) because of its unique history and heritage from the last two centuries. Since then, the number of local and international tourists rose from about 131,000 a month in 2007 to 198,000 a month in 2012 to 346,000 a month in 2019 (Penang Monthly, 2015; Lo et al., 2020). The growing number of tourists has elevated the tourism industry to the second most important economic driver in Penang after the manufacturing sector. It is assumed that tourism will one day triumph over the manufacturing sector (Mok, 2013).

On the other hand, with the recognition of WHS status, a large number of tourists will be attracted to visit George Town, creating the issue of over crowdedness. Increased traffic congestion due to high numbers of tourists during holidays tends to frustrate residents, especially those staying at tourist spots. Previous tourism literature has focused on tourists’ perspectives (See & Goh, 2019); however, research on the local residents’ opinions is still limited (Lee, 2013; Stylidis, Biran, Sit, & Szivas, 2014). In addition, there is still limited research that focuses on place image from the local residents’ viewpoint (Nunkoo & Ramkissoon, 2012; Stylidis et al., 2014; Wang & Chen, 2015). Local residents are the most affected party, and changes to their living conditions under the development of tourism industry usually get little or no concern from interested entities. To ensure successful tourism development, local residents’ place image needs to be taken into consideration by assessing the residents’ active and passive roles in tourism.

As indicated by Yu, Chancellor, and Cole (2011), tourism development does significantly affect the quality of life of local residents despite the benefits received by the locals, such as the economic benefits like better infrastructure and more employment opportunities (Ryan & Aicken, 2010). On the other hand, some of the negative costs involved due to tourism development, like degradation of the natural environment (Latkova & Vogt, 2011), traffic congestions and rising of crime rates (Nunkoo & Ramkissoon, 2012), are also important considerations for local residents when giving their support. Consequently, local residents’ perceived benefit and perceived costs towards Penang sustainable tourism development are important factors that should not be neglected. This research, which aims to examine resident support for sustainable tourism development, is timely and needed for Penang because of the UNESCO WHS status.

According to United Nations World Tourism Organisation, sustainable tourism development brings positive benefits to the local communities especially in the aspects of economics, sociocultural and environment (UNECE, 2015). The support of residents towards sustainable tourism development can be seen through their participation in government campaigns, however, there are also some dissatisfied voices found. As reported by The Star Online (2015), residents at Chew Jetty, one of the famous tourist spots, complained about the lack of civicmindedness of local tourists. According to the residents, their living environment has been polluted by tourists, and their life is indeed disrupted with the increasing numbers of tourists in their area. Tourists were found to be littering, vandalising, and even trespassing into residential areas without the permission of the owners. They are seeing that the tourism
industry is the key player in the Malaysia service sector and the second primary economic driver in Penang. It is worthwhile to investigate the issue within the region to enhance the sustainability of the industry and thus benefit the industry stakeholders, either the tourists, residents, or other related parties, such as businesses and the government. For instance, through determining the factors that affect resident support and understanding residents' mindsets, the government can impose better policies to develop the industry, thus satisfying all parties involved.

**Literature Review**

**Residents' Supports towards Sustainable Tourism Development**

The concept of sustainable development was newly introduced by the World Commission on Environment and Development, which was recognised as the Brundtland Commission in 1987 (UNECE, 2015). Sustainable development can be defined as long-term development for society by utilizing the local resources to fulfill the needs of the current community as well as future generations (UNECE, 2015). In the tourism perspective, sustainable development becomes a familiar concept to tourism practitioners and researchers, whereby sustainability is indeed advantageous towards industry development (Chen, 2015; Mohaidin et al., 2017). Sustainable tourism development is a widely perceived ability to create business opportunities and employment for the host society, thus enhancing the host economy (Latkova & Vogt, 2011). Based on the operationalized definition by Lee (2013), residents' support towards sustainable tourism development could be measured by examining how residents give their support and participation in the development of sustainable tourism initiatives, plans, developments, cultural exchanges between local residents and visitors, and promotion of environmental education and conservation.

**Social Exchange Theory**

Social Exchange Theory (SET) comes into the picture in the context of tourism because it hypothesises that residents will be willing to support tourism development if they assume the benefits to be greater than costs (Nunkoo & Ramkissoon, 2012). Residents tend to determine the benefits and cost of tourism development by evaluating the economic, socio-cultural, and environmental impacts on them (Lee, 2013; Nunkoo & Ramkissoon, 2012). Research undertaken by Stylidis et al. (2014) also adopted these three bottom lines (economic, sociocultural, and environmental) in examining the two-ways effect of tourism development. According to SET, when the residents believe that the payback of tourism development in their community is outweighing the cost they are going to bear, they will be willing to support and participate. Conversely, when the residents believe that they are going to suffer higher costs as compared to the benefits they gain, they will not support tourism development in their community (Gonzalez, Coromina, & Gali, 2018). Therefore, residents' support is crucial in determining the sustainability of tourism development through economic, socio-cultural, and environmental impacts.

**Community Attachment**

Community attachment is referred to the psychological bond between an individual and a specific community where the individual tends to have a reflected sense of belonging (Lee, 2013). An individual who is attached to a particular community is more likely to take part and assimilate into the community's ways of living. Research by Eslami et al. (2019) and Olya et al. (2018) focused on investigating the factor of community attachment in affecting local
residents' level of support towards tourism development. Eslami et al. (2019), Lee (2013), and Olya et al. (2018) discovered that there is a significant relationship between community attachment and a host people's supports towards tourism development. Thus, hypothesis 1 (H1) was postulated as follows:

**H1: There is a direct positive relationship between community attachment and residents' support for Penang sustainable tourism development.**

### Community Involvement

To ensure the sustainability of the tourism industry, community involvement is one of the crucial factors needed to be considered (Nunkoo, Smith, & Ramkissoon, 2013). Community involvement refers to the extent of residents’ participation in sharing their stories and concerns with their societies (Lee, 2013). Studies during the 1980s and early 1990s stated that community involvement is insignificant or even unnecessary, and most of the time, community members are not interested in participating in the local development process (Choi & Murray, 2010). The reasons for this phenomenon are most likely due to lack of leadership and knowledge within the community. However, with the advancement of technology, people are more educated, and community involvement in local development is increasing. According to a study carried out by Olya et al. (2018) in Bisotun, Iran, full participation of the local community was essential in tourism decision making to ensure the success of the industry, and community residents were enthusiastic about participating in future tourism decision-making. Lee (2013) also found that community involvement could directly affect residents’ levels of support for sustainable tourism development with a positive relationship between the two determinants. The higher the level of community involvement, the higher the level of support. Thus, the following hypothesis was proposed:

**H2: There is a direct positive relationship between community involvement and residents' support for Penang sustainable tourism development.**

### Residents' Place Image

Within tourism-related studies, place images are typically used in determining tourist behavior and destination choice. Place image can be defined as personal perception towards a place by assessing the information they received. Hallmann, Zehrer, and Muller’s (2013) study on tourists' winter sports destination in Germany and Austria showed that place image does play a significant role in the selection of tourist destinations and thus creates an intention to revisit the destination. Hence, place image should be an essential factor in building residents’ support of tourism development because this factor puts more concern on the place’s distinctive features rather than the personal emotional attachment to the place. Place image will be tested in three components—cognitive, affective, and conative (Agapito, Mendes, & Valle, 2013). For example, residents believe that Penang will be their rooted state for the rest of their lives (cognitive), they will tend to have the desire to protect and improve the state (affective), and they will try their best to support anything that is able to assist the state (conative). Xiong, Hashim, and Murphy’s (2015) study also supported the existence of multisensory components in affecting individual place image. Hence, this discussion led to the formulation of the following hypothesis:

**H3: There is a direct positive relationship between residents' place image and residents' support for Penang sustainable tourism development.**
The Role of Residents' Perceived Benefits and Perceived Costs

Understanding the potential impacts of tourism development as perceived by residents is essential to ensure the sustainability of the industry. According to a costs-benefits approach derived from SET, most studies identified residents' perceived impacts into benefits and cost, while some scholars used the terms positive and negative (Almeida García et al., 2015; Hammad, Ahmand & Papastathopoulos, 2017; Stylidis et al., 2014). As indicated by Stylidis et al. (2014), three approaches could be used in examining the impacts of tourism, namely the costs-benefits approach, domain-related costs-benefits approach, and non-forced approach. The cost-benefits approach classifies tourism impacts into costs and benefits or negative and positive. In contrast, the other two approaches classify tourism impacts as economic, social-cultural, and environmental (Gonzalez et al., 2018). Because the costs-benefits approach is the most direct and uncomplicated, lumping all the three impacts (economic, social-cultural, and environment) into two only two categories, it was adopted in this study.

Generally, the support of residents towards tourism development depends on their perceived tourism impacts, either positive or negative. As defined by Lee (2013), perceived benefits refer to the positive paybacks, while perceived costs refer to negative returns by sustainable tourism development as observed by residents. Both the positive and negative views of residents' perceived impacts on tourism development will be classified into three categories – economic, socio-cultural, and environmental (Almeida García et al., 2015). Research by Yu et al. (2011) examined residents' quality of life, whether residents were affected by tourism development in rural Midwestern states in the USA, and the perceived economic, socio-cultural, and environmental impacts. Furthermore, research carried out by Wang, Bickle & Harrill (2010) also indicated that residents in most places can identify the impacts of tourism development, either positively or negatively. Thus, this study proposed the following hypotheses:

H4: There is a direct positive relationship between community attachment and residents' perceived benefits of Penang sustainable tourism development
H5: There is a direct positive relationship between community involvement and residents' perceived benefits of Penang sustainable tourism development
H6: There is a direct positive relationship between residents' place image and residents' perceived benefits of Penang sustainable tourism development
H7: There is a direct positive relationship between community attachment and residents' perceived costs of Penang sustainable tourism development
H8: There is a direct positive relationship between community involvement and residents' perceived costs of Penang sustainable tourism development
H9: There is a direct positive relationship between residents' place image and residents' perceived costs of Penang sustainable tourism development
H10: There is a direct positive relationship between residents' perceived benefits and residents' support for Penang sustainable tourism development
H11: There is a direct negative relationship between residents' perceived costs and residents' support for Penang sustainable tourism development
Figure 1 shows the research model for this study, which was based on previous literature.

**Research Methodology**

Hard-copy self-administered questionnaires were distributed to residents via face-to-face meetings at the respondents’ homes in the George Town area. For local residents who preferred online, a soft copy of the survey was sent to their email addresses. G*Power 3.1.9.4 software was used to determine the minimum sample size (Hair et al., 2017). Five predictors pointed to the dependent variable of residents' support for Penang sustainable tourism development in this study. Hence, the minimum sample size was equal to 138. A total of 196 usable questionnaires were collected using a convenience sampling technique, and all respondents were aged 21 and above (Sekaran & Bougie, 2016). The respondent profile is summarised in Table 1. The measurement items were adapted from past empirical studies in similar contexts (see Table 2). All the responses were scored on a five-point Likert scale ranging from 1 for strongly disagree to 5 for strongly agree. Statistical Package for Social Science (SPSS) version 22 was also employed to evaluate demographic information, and Smart Partial Least Squares (SmartPLS) version 3.0 was used to test the reliability, validity, and significance of the relationship between variables by using structural equation modeling (Ringle, Wende, & Becker, 2015).

**Table 1: Demographic Profile of the Respondents**

| Variable       | Frequency | %     |
|----------------|-----------|-------|
| Gender         |           |       |
| Male           | 63        | 32.1  |
| Female         | 133       | 67.9  |
| Age            |           |       |
| 21 – 30        | 144       | 73.5  |
| 31 – 40        | 40        | 20.4  |
| 41 – 50        | 9         | 4.6   |
| 51 – 60        | 3         | 1.5   |
| Nationality    |           |       |
| Malaysian      | 196       | 100   |

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Average monthly household income

| Income Range     | Number | Percentage |
|------------------|--------|------------|
| < RM2000         | 18     | 9.2        |
| RM2000 – RM3000  | 64     | 32.7       |
| RM3001 – RM4000  | 54     | 27.6       |
| RM4001 – RM5000  | 21     | 10.7       |
| RM5001 – RM6000  | 10     | 5.1        |
| > RM6000         | 29     | 14.8       |

**Testing For Common Method Variance**

According to Podsakoff, MacKenzie, Lee, and Podsakoff (2003), it is necessary to assess the common method bias if the data were collected from a single source. In this self-reporting study, it is possible that a general-method variance or same-source bias may exist because both exogenous and endogenous variables were collected from the same respondents (Podsakoff & Todor, 1985). To check the common-method variance, this study ran Harman's single factor test using SPSS software, where the largest variance explained by the first factor was 33.196% of the total variance, which is below the recommended value of 50% (Podsakoff et al., 2003). The results indicated that no general common method bias was found in this study.

**Measurement Model Analysis**

According to Hair et al. (2017), construct validity is used to evaluate the validity of the results generated with the representative sample within the population. Hair et al. (2017) stated that in terms of indicator loading, indicators with outer loading above 0.70 means that the construct explains over 50% of the indicators' variance, while indicators with loadings lower than 0.50 need to be deleted to increase the average variance extracted (AVE) values after the elimination. It was observed that the outer loading of all the items was found by measuring their construct, and they were higher (greater than 0.5) than the other construct through the running of outer loading and cross-loading. Hair et al. (2017) also stated that AVE values need to achieve 0.50 or higher, and the composite reliability (CR) value should be greater than 0.70. The factor loadings, CR, and AVE values for this study are shown in Table 2. All the items had factor loadings higher than 0.50, thus they fulfilled the first criteria. In terms of AVE value, all the items met with the requirements of a minimum value of 0.50. The CR values were also greater than 0.70, ranging from 0.886 to 0.957.

At the next level, discriminant validity was assessed. According to Hair et al. (2017), discriminant validity refers to verifying whether each of the constructs differs from other constructs within the proposed model. In this study, discriminant validity was verified by adopting Heterotrait–Monotrait (HTMT). There are two methods to assess discriminant validity: (1) the criterion method and (2) the statistical test method. For the criterion method, the HTMT value should be smaller than 0.85 (Kline, 2011). For the statistical test criteria based on the recommendation by Henseler, Ringle, and Sarstedt (2015), the test examines the null hypothesis (H0: HTMT ≥ 1) against the alternative hypothesis (H1: HTMT< 1). If the confidence interval contains a value below one (i.e., H1 holds) the discriminant validity is confirmed. Table 3 shows that all the values were below the HTMT value of 0.85 (Kline, 2011). HTMT Inference also showed that all the confidence interval values were below one for any of the constructs, indicating that discriminant validity was asserted.
| Latent variable | Item | Loading | CR  | AVE  |
|-----------------|------|---------|-----|------|
| Perceived Benefits (adapted from Lee, 2013) | PB1  | 0.805   | 0.957 | 0.694 |
|                 | PB2  | 0.86    |       |      |
|                 | PB3  | 0.856   |       |      |
|                 | PB4  | 0.835   |       |      |
|                 | PB5  | 0.874   |       |      |
|                 | PB6  | 0.665   |       |      |
|                 | PB7  | 0.851   |       |      |
|                 | PB8  | 0.865   |       |      |
|                 | PB9  | 0.859   |       |      |
|                 | PB10 | 0.837   |       |      |
| Perceived Costs (adapted from Latkova & Vogt, 2011) | PC1  | 0.768   | 0.907 | 0.552 |
|                 | PC2  | 0.782   |       |      |
|                 | PC3  | 0.783   |       |      |
|                 | PC4  | 0.641   |       |      |
|                 | PC5  | 0.798   |       |      |
|                 | PC6  | 0.777   |       |      |
|                 | PC7  | 0.613   |       |      |
|                 | PC8  | 0.758   |       |      |

Note: a Composite Reliability (CR), b Average Variance Extracted (AVE)

Table 2: PLS Result of Convergent Validity (continue)

| Latent variable | Item | Loading | CR  | AVE  |
|-----------------|------|---------|-----|------|
| Community Attachment (adapted from Lee, 2013) | CA1  | 0.544   | 0.948 | 0.647 |
|                 | CA2  | 0.768   |       |      |
|                 | CA3  | 0.820   |       |      |
|                 | CA4  | 0.803   |       |      |
|                 | CA5  | 0.876   |       |      |
|                 | CA6  | 0.851   |       |      |
|                 | CA7  | 0.887   |       |      |
|                 | CA8  | 0.810   |       |      |
|                 | CA9  | 0.848   |       |      |
|                 | CA10 | 0.786   |       |      |
| Community Involvement (adapted from Lee, 2013) | CI1  | 0.868   | 0.887 | 0.67  |
|                 | CI2  | 0.536   |       |      |
|                 | CI3  | 0.92    |       |      |
|                 | CI4  | 0.89    |       |      |
| Residents' Place Image (adapted from Stylidis et al., 2014) | RPI1 | 0.766   | 0.933 | 0.501 |
Table 3: PLS Result of Discriminant Validity (Heterotrait – Monotrait, HTMT)

|   | 1  | 2  | 3  | 4  | 5  |
|---|----|----|----|----|----|
| 1. CA | 0.366 |    |    |    |    |
| 2. CI | 0.366 | 0.169 |    |    |    |
| 3. PB | 0.563 | 0.169 | 0.434 |    |    |
| 4. PC | 0.336 | 0.121 | 0.434 | 0.322 |    |
| 5. RPI | 0.655 | 0.265 | 0.752 | 0.322 | 0.368 |
| 6. RS | 0.337 | 0.640 | 0.302 | 0.236 | 0.368 |

Note: perceived benefits (PB), perceived costs (PC), community attachment (CA), community involvement (CI), residents’ place image (RPI), residents’ support (RS)

Structural Model Analysis

This study analyzed the structural model results for all the scale items within six constructs, namely community attachment, community involvement, residents’ place image, perceived benefits, perceived costs, and also residents’ support of Penang sustainable tourism development. According to Hair et al. (2017), to assess the structural model, the researcher should look at $R^2$, beta, and corresponding t-value using a bootstrapping procedure with the resample size of 5,000. Based on Chin’s (2010) research, $R^2$ values for endogenous latent variables of 0.67, 0.33, and 0.19 indicate substantial, moderate, and weak models, respectively. The $R^2$ value of 0.337 signifies a moderate model, with 33.7% of the variance of residents' support towards Penang tourism development being explained by community attachment, community involvement, residents' place image, perceived benefits, and perceived costs.

In a one-tailed test, the critical values used are 1.645 under a significance level of five percent and 2.33 under a significance level of one percent (Hair et al., 2017). As shown in the results
in Table 4, community involvement ($\beta = 0.508, p < 0.01$), had a positive influence on residents' support of Penang sustainable tourism development. Thus, hypothesis H2 was supported. In contrast, community attachment ($\beta = -0.012, p > 0.05$) and residents' place image ($\beta = 0.144, p > 0.05$) were not significant predictors of residents’ support of Penang sustainable tourism development. Hence, H1 and H3 were not supported. The results also showed that community attachment ($\beta = 0.194, p < 0.01$) and residents' place image ($\beta = 0.605, p < 0.01$) were found to positively affect perceived benefits, so H4 and H6 were supported. However, H5 was not supported since community involvement ($\beta = -0.069, p > 0.05$) did not affect residents' perceived benefits. Community attachment ($\beta = 0.236, p < 0.01$) and residents' place image ($\beta = 0.189, p < 0.05$) were found to have a positive influence on residents’ perceived costs; therefore, H7 and H9 were supported. H8 was not supported because community involvement ($\beta = -0.071, p > 0.05$) was found to have an insignificant effect on residents' perceived cost. Lastly, both perceived benefits ($\beta = 0.061, p > 0.05$) and perceived costs ($\beta = 0.092, p > 0.05$) were found to have insignificant relationships with residents’ support for Penang sustainable tourism development. Hence, H10 and H11 were not supported.

In terms of effect size ($f^2$) assessment, Cohen (1988) indicates that effect size is essential to examine how strongly an exogenous construct contributes to an endogenous construct, and the effect size of 0.35, 0.15, and 0.02 are identified as substantial, moderate, and small, respectively. H2 and H6 indicated a substantial effect size, whereas the rest of the hypotheses showed a weak effect size (see Table 4). A blindfolding procedure was applied to test the predictive capability. According to Fornell and Cha (1994), a value greater than zero shows that there is predictive relevance of the proposed model, while a value of less than zero indicates that exogenous constructs have a lack of predictive relevance over endogenous constructs. The $Q^2$ value for residents' support for Penang tourism development, residents' perceived benefits of Penang tourism development, and residents' perceived costs of Penang tourism development were greater than zero, indicating sufficient predictive relevance.

| Hypothesis and Path | Std. Beta | Std. Error | t-value | Decision | $R^2$ | $f^2$ | $Q^2$ |
|---------------------|-----------|------------|---------|----------|-------|-------|-------|
| H1: Community Attachment --> Residents' Support | -0.012 | 0.087 | 0.132 | Not Supported | 0.337 | 0.000 | 0.182 |
| H2: Community Involvement --> Residents' Support | 0.508 | 0.079 | 6.420** | Supported | 0.358 | | |
| H3: Residents' Place Image --> Residents' Support | 0.144 | 0.106 | 1.354 | Not Supported | 0.013 | | |
| H4: Community Attachment --> Perceived Benefits | 0.194 | 0.081 | 2.398** | Supported | 0.527 | 0.048 | 0.330 |
| H5: Community Involvement --> Perceived Benefits | -0.069 | 0.062 | 1.103 | Not Supported | 0.009 | | |
| H6: Residents' Place Image --> Perceived Benefits | 0.605 | 0.079 | 7.611** | Supported | 0.486 | | |

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H7: Community Attachment -- >  
Perceived Costs 0.236 0.088 2.696** Supported 0.136 0.038 0.058  
H8: Community Involvement -->  
Perceived Costs 0.071 0.074 0.956 Supported 0.005  
H9: Residents' Place Image -->  
Perceived Costs 0.189 0.086 2.205* Supported 0.026  
H10: Perceived Benefits -->  
Residents' Support 0.061 0.112 0.547 Supported 0.003  
Residents' Support 0.092 0.082 1.122 Supported 0.011  

**p< 0.01, *p< 0.05

Discussion and Conclusion
The results contradicted Eslami et al.’s (2019), Lee’s (2013), and Olya et al.’s (2018) studies, which stated that highly attached residents would be more likely to support further tourism development. This phenomenon may be due to the majority of young Malaysian respondents being overly attached to their mobile phones. It is believed that the younger generation tends to be more concerned with their social networking lifestyles instead of their community development activities (Balakrishnan & Raj, 2012). Hence, H1 was not supported.

The results also suggested that community involvement exhibited the second most substantial effect on residents' support of Penang sustainable tourism development. That means Penang residents tend to support tourism development when locals are more involved in community involvement. Thus, H2 was supported. These findings are in line with Lee (2013) and Olya et al. (2018). The main reason community involvement positively affects residents' support of Penang sustainable tourism development projects may be due to the fact that local people are aware of and educated on what is going on in those tourism development projects. This indicates that constant communication with the local community is one of the critical drivers of the community support of local tourism development projects. Higher educated and more involved individuals are more likely to have positive behaviour towards local tourism development projects.

Residents' place image was found to have an insignificant relationship on residents' support for Penang sustainable tourism development. Therefore, H3 was not supported. This result contradicts the findings of Stylidis et al. (2014), which stated that there would be a positive relationship between residents' place image and their support for sustainable tourism development. This reversed result may be due to the younger age composition of the respondents. These youngsters who are just stepping out to the society may not have deep image impressions of Penang due to having a shorter period in touch with the area outside of their homes. Furthermore, research carried out by Chee & Fernandez (2013) supports the idea that Penang youngsters would prefer to use private transport instead of public transport due to the unsatisfactory conditions of the facilities and also the service quality of the public transportation system.
Community involvement was found to have no relationship with residents' perceived benefits of Penang sustainable tourism development, so H5 was rejected. This result is in contrast with Lee's (2013) and Choi and Murray's (2010) findings. According to Choi and Murray (2010), when a resident has a higher community involvement level, they tend to perceive fewer benefits from tourism development. The insignificant result may be due to the idea that Malaysian females tend to have less involvement in community activities as compared to males (Aziz & Selamat, 2014; Kunjuraman & Hussin, 2016). Therefore, they might not realize the benefits that could come through sustainable tourism development.

The findings of this study revealed that residents' place image exhibited the most substantial effect on their perceived benefits of Penang sustainable tourism development. Thus, H6 was supported. This finding is in line with Stylidis et al.’s (2014) study that stated when host residents have a deeper and better place image towards their living area, they tend to have higher perceived benefits of sustainable tourism development. The declaration of George Town as a World Heritage Site in 2008 after the mass reconstruction projects done by the Penang government provides a positive image not only to foreigners but to the local communities as well. Thus, local respondents might have experienced the benefits brought by sustainable tourism development, such as the restructuring of old buildings, and that is why they would perceive that sustainable tourism development would be beneficial to them.

The results also revealed that community attachment positively affects residents' perceived costs of Penang sustainable tourism development. Hence, H7 was also supported. This finding is consistent with Nicholas et al. (2009) whose results suggested that the longer residents live within a particular community, the more they attach towards the community and try their best to protect their community. Individuals tend to have a more profound sense of belonging when they reside within a particular community for an extended period, and they might experience the side effects of tourism development such as traffic congestions. Respondents may see the costs outweighing the benefits when they are highly attached to the community (Lee, 2013).

Community involvement showed insignificant results on residents' perceived costs of Penang sustainable tourism development, and H8 was rejected. This finding contradicts Choi and Murray's (2010) study, which indicates that community involvement is directly and positively related to residents' perceived costs of sustainable tourism development. The higher the involvement level from the local people, the higher the perceived negative impacts (costs) to them. This unsupported hypothesis might be due to the gender composition of the respondents. Females, as the majority of the respondents, might have less interest in getting involved in
planning tourism-related activities (Aziz & Selamat, 2014; Kunjuraman & Hussin, 2016), the authors found that females seldom participate in community activities, and may not realize the costs brought by sustainable tourism development.

The positive effect of residents' place image on their perceived costs of Penang sustainable tourism development was consistent with Stylidis et al. (2014). As a result, H9 was supported. This indicated that the longer an individual stays within the area, the more profound impression they will have on the place. Most of the respondents have stayed in Penang for more than 20 years, and Penang did not focus much on tourism development until recently. Nowadays, the tourism industry has become the second key economic driver, and respondents who might have gone through all the development processes have possibly experienced some costs brought by sustainable tourism development that they did not experience previously, such as traffic congestion. As a result, they would perceive that sustainable tourism development is a burden to them.

Residents' perceived benefits were found to have no significant relationship with their support for Penang sustainable tourism development. The finding contradicts the results of Choi and Murray (2010), which reported that residents would be more likely to support sustainable tourism development when they perceived the tourism impact as beneficial. Similarly, with perceived benefits, residents' perceived costs were found to have an insignificant relationship on their support for Penang sustainable tourism development. This finding failed to be in line with Choi and Murray’s (2010) findings as well, which stated that residents' perceived costs were negatively related to their support for sustainable tourism development. Therefore, H9 and H10 were rejected. The inconsistent results may be due to the fact that Choi Murray's (2010) study was carried out in a Western country (e.g., Texas, USA). This study was conducted in Malaysia (an Asian country), so the perspectives of respondents might differ due to different backgrounds and upbringing.

Implication
Tourism developments are well known to bring either positive or negative social, economic, and environmental changes to local communities. To ensure the sustaining of the industry, the involvement of residents is a necessity. This study has given a comprehensive contribution to the existing tourism literature by investigating residents' perspectives, especially from the Malaysian context. Additionally, this study could provide better insights for regulatory bodies as well as owners related to the tourism businesses such as hotels and property developers. This study could assist such entities in creating better future tourism development ideas, policies, and plans to boost the local economy and increase the source of income for local people. For example, this study could provide ideas to property developers on where and how to build houses, shop lots, or shopping centers with the consideration of residents, thus reducing resistance from local communities. Local authorities can also refer to this study to determine which factors concerned residents most in their planning for future development. Based on the findings, the local authorities should encourage residents to participate in activities related to their community by allowing them to voice their opinions, and authorities should take those opinions into account for future tourism development projects.

Furthermore, the local authorities should stimulate resident support through social networking by promoting the activities related to sustainable tourism development online. Online information should educate residents by providing them with sufficient information on both
positive and negative impacts on the local communities, thus, improving their trust in local authorities, minimizing the risk of resistance, and ensuring sustainable development. Furthermore, tourism-related businesses should also prioritise residents for employment opportunities so that local people can see the benefits of tourism development. By adding residents into the workforce, businesses might be able to have a better understanding of the needs and desires of the local community. When residents become part of the businesses, they will tend to provide further support and less resistance, helping to secure continual sustainable tourism development.

**Limitation and Future Research**

Despite its contribution, there are ample areas of needed research for future studies. First, the present study mainly focused on Penang island. The sample obtained for future research should also consider other states of Malaysia, such as Selangor, Malacca, Kuala Lumpur, etc., who also have a lot of historical and tourist spots. A stratified sampling method based on every state should be adopted for future research. Also, future researchers can further investigate similar variables and focus on residents of other nations to validate the findings of this study and new insights to the current study.

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