Perception of Tourism Impact and Support Tourism Development in Terengganu, Malaysia

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Abstract: (1) Background: Tourism is a prominent industry with the capability to generate income for developed as well as developing countries. However, studies are still lacking, particularly those specifically investigating the perception of local residents towards tourism. The perception of the locals is important, since it could determine the extent of their support for tourism development. In addition, previous research has found that male residents are more supportive towards tourism development. Therefore, this factor is adapted in this study to additionally examine whether gender may influence the tourism industry. (2) Methods: This study used Structural Equation Modeling (SEM) technique for determining the structural estimates between constructs. (3) Results: The respondents agree that positive perception, negative perception and tourism impact have a significant impact on support for tourism development, which has been recognized as a Social Exchange Theory model. Moreover, the findings also reveal that gender has the potential to moderate the causal effects of tourism impact on tourism development. (4) Conclusion: The residents understand the tourism sector could strengthen the national economy, but they also want natural resources to be protected.

Keywords: social exchange theory; structural equation modeling; tourism development

1. Introduction

Tourism impact is a popular topic in tourism research (Ko and Stewart 2002), and is now receiving increasing attention among scholars and academics. Although tourism research is viewed as an important element in national development, findings revealed thus far are inadequate to elucidate these aspects. In Malaysia, researchers are more inclined to associate Service Quality (Lau et al. 2005; Grönroos 1984; Mey et al. 2006; Ennew et al. 1993; Kandampully et al. 2001), Physical Infrastructure (Pocock and Phua 2011; Bookman and Bookman 2007; Kasim 2007; Wong 1997; Henderson 2003) and Human Capital (Liu and Wall 2006; Durbarry 2004) with tourism development. Policy makers in the tourism context often focus on stimulating tourism by providing the essential conditions for tourism growth (Coccossis and Mexa 2017), with the result that tourism often has a significant impact on the environment, as well as social and cultural structures and dynamics.

However, not all tourism impacts are always beneficial. There can be negative effects on residents that cannot be determined by observation. In addition, there is a significant lack of study related to the attitudes and perceptions of residents towards tourism development. In order to fill the gap through this research, we use the social exchange theory model proposed by (Pham and Kayat 2011; Allen et al. 1993; Andereck et al. 2005; Andriotis 2005; Andriotis and Vaughan 2003; Ap 1990; Chen 2000; Getz 1994; Johnson et al. 1994) to explain the perception of residents in terms of support for tourism development. These accounts provide a context for the comprehensive understanding of the importance of resident perception in tourism development (Harrill 2004).

Such information would lead us to identify the most important factors involved in the perceptions of residents, as well as to provide better facilities for enhancing tourism satisfaction. This is important
because positive attitudes and perceptions of residents are essential for encouraging visitor satisfaction and, therefore, repeat visits in the future. Although a lot of the previous research associates repeat visitation with destination loyalty in determining tourism satisfaction, no articles from Malaysia so far have dealt with the perception of residents on the impact of tourism towards support for tourism development. Hence, there is the need for a comprehensive study concentrating on the perception of residents of tourism development. The tourism industry is not the same as other industries, the perception of which can be assessed in many domains, such as transportation, lodging, land use, environment, social structure and entertainment exercises (Hayllar et al. 2011). These great effects could impact residents, and this impact is becoming an important part of the tourism planning process.

Using social exchange theory, the perception of the resident can be properly identified as being valuable or not for tourism development. It suggests that people evaluate an exchange based on the costs and benefits incurred as a result of that exchange (Pham and Kayat 2011). This means that an individual who receives costs and benefits related to the tourism industry that tend to improve their quality of life are more likely to have a positive perception of tourism development, and will subsequently support this particular sector every time. However, this situation might not happen for other individuals, who perceive the disadvantages of tourism development, and thus will oppose the sector. If this situation happens, the researcher needs to address the main issues lying behind tourism development.

Moreover, (Pham and Kayat 2011) established that males were more supportive of tourism development than females. Thereby, this study attempts to take into account gender in our discussion, so that we manage to identify which group gives greatest support to the tourism industry in Malaysia. Due to the limited budget and time constraints, we decided to focus on one location in the Terengganu area. In terms of the methodology, second generation modeling, such as Structural Equation Modeling (SEM), is most suitable to implement in this study, since this method has the capability of handling multiple variables simultaneously. In addition, SEM seems to be becoming a prominent tool for assisting researchers in analyzing their research, providing parameter estimates for hypothesis testing. Additionally, the model involved in the study resembles that used previously in Pham and Kayat (2011), which was implemented at National Park, Ninh Binh, Vietnam. Thus, SEM has appropriately theory-driven conformation testing characteristics to confirm whether the proposed framework is supported or not in Terengganu, Malaysia.

In addition, SEM is a strict method, in which the analysis is conducted properly in the basis of parametric testing. Specifically, the study makes an attempt to determine the perception of residents towards tourism development, in addition to comparing males and females in this discussion. The structure of the paper is as follows. First, we undertake a review of the relevant literature on the perception of residents, and the relevant dimensions, including sociological, economic, and environmental, and we discuss hypothesis development. This is followed by a description of the research methodology, including target population, sampling technique and the characteristics of SEM. Subsequently, Confirmatory Factor Analysis (CFA) is discussed, which is one of the compulsory methods in SEM. Finally, the paper concludes with the findings, future research and limitations.

2. Review of Literature on Environmental Impact

In Malaysia, the Ministry of Culture, Arts and Tourism formulated The Malaysian National Tourism Policy (NTP) in 1992 to develop the tourism industry, which seemed to offer the potential to generate a large contribution to the country’s economy. This policy is responsible for providing the guidelines and management practices for tourism destinations (Bhuiyan et al. 2013), as well as conserving the environment. Therefore, ecotourism is identified as a sustainable tourism form, and is one part of this plan to preserve tourism areas. Such information on policy implies that the Malaysian government is very serious about preserving the environment, as evidenced by the fact that it has formulated several acts to ensure sustainability. Government action to sustain the environment has
managed to yield a good response from the local community, and thus they are more likely to have a positive perception of tourism development.

However, some individuals may disagree with the government plan due to the human activity that would be involved in building the physical infrastructure for the tourism area. Thus, the quality of the nature will deteriorate as a result of human activities (Mihalic 2000). This environmental issue could be more disturbing in the future due to the impact of population growth and low-density residential housing (Austin 2014). This statement is also supported by other authors who are very concerned about the quality of natural attractions (Pizam and Mansfeld 2000; Middleton and Clarke 2012).

2.1. Review of Literature on Socio-Cultural Impact

In many cases, the ongoing issue has been debated for many years in the cultural literature (Sharma et al. 2008; Tovar and Lockwood 2008; Deery et al. 2012), which is most often focused on quality of life and tourism development (Yen and Kerstetter 2008; Huh and Vogt 2008). Research with different perceptions of residents is not represented in previous studies, as is highlighted here. Ap and Crompton (1998) stated that the socio-cultural impact constitutes a large portion of the observed impact of tourism, as perceived by residents, and it seems that it is very difficult to measure or quantify this factor, since it can change slowly over time. This transformation can lead to positive or negative perception among the residents towards tourism development. In terms of positive perception, socio-cultural impact would be significant, due to the improvement of various local services, infrastructure development, public transport, and the participation of local communities in community-based tourism. This statement is supported by Mbaiwa (2004) and Kim and Petrick (2005). In addition, Brunt and Courtney (1999) stated that tourism can also lead to advancement in education and healthcare. However, negative impacts can occur as a result of the positive socio-cultural impacts. Among the negative impacts observed are the relocation of traditional communities, racism, the breaking up of the traditional family structure and relationships, and increase in crime and prostitution (Zamani-Farahani and Musa 2012).

Therefore, negative impacts inevitably happen, since this issue also prevails in other countries. Although there are a lot of articles about the positive and negative socio-cultural impacts, there is no absolute consensus on what constitutes the dimensions of tourism impact (Andereck et al. 2005; Long et al. 1990; McCool and Martin 1994; Haralambopoulos and Pizam 1996). Therefore, this study prefers the conceptual model developed by Pham and Kayat (2011) for estimating the causal effect between positive and negative perception on tourism development. This statement will support us continuing our study using SEM later on.

2.2. Review of Literature on Economic Impact

In Malaysia, the number of tourists is increasing every year, and has now become one of the most prominent industries in the generation of national income. In order to accelerate the progress of the tourism industry, governments are noticeably playing a strong marketing and promotional role in the emergence of medical tourism (Pocock and Phua 2011). This trend is also occurring in neighboring countries like Thailand and Singapore (Soh and Yuen 2011). Therefore, the competition among these countries has become tangible, in terms of attracting tourists using various methods. In 2007, Malaysia achieved 253.84 Million MYR (USD 78 Million) through investment in medical tourism. Although Malaysia shows some improvement in terms of healthcare services, physical infrastructure, and using human capital to enhance visitor satisfaction, this tactic has also been implemented by neighboring countries (Moghadvemi et al. 2017). In terms of the positive perception of residents, this activity is really good for national income, and suggests that Malaysia is one of the most preferred destinations among retired people, based on a previous report (Ormond et al. 2014).

However, some residents assume this activity does not represent a good solution for increasing the national income. They blame price increases of many goods and services on the government plan to grow the tourism sector (Ormond 2014). Plus, they believe that the income from tourism benefits
only a few people in the community (Webster and Ivanov 2014). In fact, they hope that this benefit would be shared equally with them, so that they will be satisfied.

2.3. Theoretical Framework

As mentioned above, we decided to model the structural model on the suggestions in Pham (2011), in order to estimate the causal effect of positive and negative perception, and make an overall evaluation of tourism impact on tourism development in Terengganu, Malaysia. Moreover, we also provided a questionnaire that resembles that developed in Pham (2011). This instrument is comprised of 43 items, with 10 socio-demographic items. Originally, this questionnaire utilized a 5-point of Likert scale in determining respondent opinion (1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, and 5 = strongly agree), but we modified the measurement scale from 5 points to 10 points, since this makes it more able to independently take into account the respondent options. According to Hair et al. (2013) and Awang et al. (2016), longer measurement scales help to avoid data returning extreme values as a result of outliers.

This paper addresses the Terengganu area in terms of obtaining data on resident perception towards tourism development. Therefore, the sample was selected from the population in this area using simple random sampling. We determined that the current population is an estimated 23.8 million from the Department of Statistics. To obtain the minimum required sample size for the use of SEM, we computed the number of observed variables and latent constructs in the model, the anticipated effect size, and the desired probability and statistical power levels through lower bound sample size and Cumulative Distribution Function (CDF) (Soper 2015). The results revealed that the necessary sample size was 126. Nonetheless, we printed out 500 questionnaires, although only 470 were ultimately answered. Subsequently, we conducted a normality test using a p-p plot, Kolmogorov-Simonov and boxplot to identify which items tended to serial collinearity. Hence, we found out that only 450 respondents were acceptable for consideration for statistical inferences.

As illustrated in Figure 1, positive and negative perception are included in the same box to impose on support for tourism development. In the AMOS 21.0 application, this model will be split into two main constructs, exhibiting positive perception and negative perception. Meanwhile, three factors—namely, environment, social and economic—will be categorized as component or sub-constructs for each corresponding main construct. In addition, gender was represented as a moderator variable between positive and negative perception, tourism impact and tourism development. This is the first study that has sought to determine the influence of gender within this model. Apart from that, the use of social exchange theory provides comprehensive information about positive and negative perception of tourism development.

![Figure 1. Theoretical Framework.](image-url)
3. Method

Structural Equation Modeling (SEM) is a data-analytics technique that has been gaining popularity over the last decade (Martens 2005; Afthanorhan 2014). SEM is unique, in that it is able to answer a large number of research questions and research hypotheses simultaneously. Today, SEM is recognized as comprising two primary methods, known as covariance and component-based SEM, which were developed for confirming and prediction, respectively. Researchers can use SEM for purposes as varied as confirming the factor structure in behavioral sciences and analyzing structural models, potential mediators and moderator effects, testing measurement models and latent growth curves for longitudinal analysis (Martens and Haase 2006).

In addition, researchers can model multiple observed variables, or incorporate unobserved variables to estimate the causal effect between independent and dependent variables. Unlike other statistical methods, covariance-based SEM (CBSEM) is a confirmatory technique specifically involving the entire theoretical model in one analysis (Martens and Haase 2006; Hair et al. 2013).

4. Results

As exhibited in Figure 2, all fitness indices (Chiq/df = 3.381 ≤ 5.0, RMSEA = 0.073 ≤ 0.08, CFI = 0.908 ≥ 0.90, IFI = 0.908 ≥ 0.90) (Awang et al. 2016; Afthanorhan et al. 2014) were achieved after several observed variables were deleted. The reliability of this model was achieved when the value of Cronbach Alpha and Composite Reliability was higher than 0.70. Meanwhile, validities like Maximum Shared Variance (MSV), Average Shared Variance (ASV) are presented in Table 1 and discriminant validity were satisfied as presented in Table 2.

![Figure 2. Confirmatory Factor Analysis (CFA).](image)

Table 1 presents the reliability report for each construct developed in Figure 2. Based on these findings, all reliability and validity requirements were met. The results of MSV and ASV should be lower than the value of AVE (Awang et al. 2015; Aziz et al. 2016). All of these results were calculated manually using the formula proposed. Next, we took into account the discriminant validity to test the distance between variance obtained and latent variable correlation. The discriminant validity is achieved when a diagonal value (in bold) is higher than the value in its row and column.
Table 1. Reliability report.

<table>
<thead>
<tr>
<th>Variable</th>
<th>CR</th>
<th>AVE</th>
<th>MSV</th>
<th>ASV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support_Tourism</td>
<td>0.941</td>
<td>0.888</td>
<td>0.083</td>
<td>0.077</td>
</tr>
<tr>
<td>Positive</td>
<td>0.966</td>
<td>0.904</td>
<td>0.712</td>
<td>0.339</td>
</tr>
<tr>
<td>Negative</td>
<td>0.994</td>
<td>0.982</td>
<td>0.712</td>
<td>0.389</td>
</tr>
<tr>
<td>Tourism_Impact</td>
<td>0.939</td>
<td>0.885</td>
<td>0.383</td>
<td>0.232</td>
</tr>
</tbody>
</table>

Table 2. Discriminant validity.

<table>
<thead>
<tr>
<th>Latent Construct</th>
<th>Support_Tourism</th>
<th>Positive</th>
<th>Negative</th>
<th>Tourism_Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support_Tourism</td>
<td>0.942</td>
<td>0.278</td>
<td>0.951</td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>0.268</td>
<td>0.844</td>
<td>0.991</td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>0.288</td>
<td>0.478</td>
<td>0.619</td>
<td>0.941</td>
</tr>
</tbody>
</table>

Figure 3 is the structural model that was designed in accordance with the theoretical framework along the fitness index. The single-headed arrows refer to causal effects from exogenous to endogenous constructs, while the double-headed arrows refer to covariance between exogenous constructs. The result of path estimates can be perceived in Table 3. We determined that this model achieved 20.9% of tourism support via square multiple correlation. This means that 20.9% of support for tourism development has been explained well by the three main constructs involved in the study. Meanwhile, 100% − 20.9% = 79.1% can be obtained from other appropriate factors. Hair et al. (2013) proposed that the square multiple correlations of between 13% and 26% can be considered to be a medium effect. So, we can conclude that the model involved is insufficient to be consider a large effect. Therefore, we might add other factors to the theoretical framework in the future to enhance the effect size of the structural model.

Figure 3. Structural model.
The main constructs—namely, positive perception, negative perception and tourism impact—were perceived to have a significant effect on support for tourism development. Thus, one can conclude that the residents in Terengganu states believe that tourism development has the possibility of yielding positive and negative effects on national development in terms of the three dimensions environment, socio-cultural and economics as addressed in Table 3. This finding would be an important contribution to our discussion regarding the positive and negative perception that exists among the residents here. Those convinced by the benefits of tourism development will continue to support government plans to devote attention to tourist travel, due to their positive thinking. However, negative people will refute the positive growth and assume that the plan might cause trouble in their life. By comparing the estimation between positive and negative perceptions towards economics, the environment, and socio-cultural factors, we determined that most of the residents believe that the enhancement of tourism development will benefit them, thus leading them to think positively regarding tourism.

With regard to positive perceptions, the residents opined that economic indicators are the most important element in tourism development. They believe the presence of tourism creates new business opportunities for local residents (Factor loading = 0.75) and improved employment opportunities (Factor loading = 0.64). For socio-cultural factors, we presume this construct as the reference point for the main construct (positive perception), so that the result of the regression weight can be identified. If the reference point is not stated, the calculation will be a stop criterion due to the identification problem. Next, we found out that the local residents agreed that environmental impact can be influenced by tourism development. They believe that tourism has improved the area appearance (Factor loading = 0.70) and is capable of providing an incentive for the restoration. Therefore, residents tend to have these benefits in mind when considering tourism impacts.

Although the local residents seem to tend towards positive perception rather than negative perception, we still need to conduct this analysis in depth so that the main problem can be identified. In terms of environment factors, we figured out that the respondents who disagree with tourism pointed out that tourism yielded a negative impact on natural resources (Factor loading = 0.79), created significant solid and air waste and air (Factor loading = 0.85), and caused destruction of the natural landscape (Factor loading = 0.84). This finding is in line with previous research (Mihalic 2000), suggesting that the quality of natural phenomena is deteriorated by human activities. Plus, environment impact is viewed as the most important element in the negative perception of residents, contradicting the residents who tend to have a positive perception.

In terms of the economic impact of negative perception, the respondents seem not to be satisfied with economic activities managed by the government. They believe tourism income generated in the areas goes to individuals (Factor loading = 0.81), that income from tourism benefits only a few people (Factor loading = 0.71), and that the prices of goods and services have increased (Factor loading = 0.75). Overall, we believe the local resident require the benefits to be shared equally with them, so that they will be acknowledged too. Nonetheless, the respondents opined that tourism development in Terengganu brings more benefit than harm (Factor loading = 0.69) and believed that the benefits of tourism exceed the cost to the people.

This finding agrees with previous research by Tatoglu et al. (2002), Andriotis (2004), Kuvan and Akan (2005) suggesting that residents strongly agree that tourism has positive economic, environmental and socio-cultural impacts. Additionally, it is worth noting that positive perception, negative perception and tourism impact have a significant impact on tourism development. In order to achieve the last

### Table 3. Regression weights.

<table>
<thead>
<tr>
<th>Endogenous</th>
<th>Exogenous</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support_Tourism ← Positive</td>
<td>0.335</td>
<td>0.130</td>
<td>2.577</td>
<td>0.009</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>Support_Tourism ← Negative</td>
<td>0.151</td>
<td>0.055</td>
<td>2.745</td>
<td>0.006</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>Support_Tourism ← Tourism_Impact</td>
<td>0.210</td>
<td>0.083</td>
<td>2.530</td>
<td>0.010</td>
<td>Supported</td>
<td></td>
</tr>
</tbody>
</table>
research objective, whereby the gender (male or female) that is more supportive of tourism development is identified, a multi-group confirmatory factor analysis (SEM-MGA) was executed.

Based on Table 4, there are no significant differences when gender as a moderator variable was employed for two causal effects (Positive $\rightarrow$ Support Tourism and Negative $\rightarrow$ Support Tourism). Meanwhile, we discovered that gender moderates the relationship of tourism impact on tourism development. Since gender has the capability of moderating the relationship between tourism impact and tourism support, we need to find which group supports tourism development more, using a comparison of standardized estimates. The findings reveal that females support the provision of better tourism development more than males (0.39 vs. 0.09). Additionally, this finding contradicts Pham (2011), who found that males are more supportive than females.

<table>
<thead>
<tr>
<th>Table 4. Moderator Result.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Endogenous</strong></td>
</tr>
<tr>
<td>Support_Tourism $\leftarrow$ Positive</td>
</tr>
<tr>
<td>Support_Tourism $\leftarrow$ Negative</td>
</tr>
<tr>
<td>Support_Tourism $\leftarrow$ Tourism_Impact</td>
</tr>
</tbody>
</table>

5. Discussion

We decided to employ social exchange theory, which has been recognized in various pieces of prominent research, in our analysis using Structural Equation Modeling (SEM). This study is the first research that has been applied thus far in Malaysia. Remarkably, all the models involved in the study have a significant relationship to tourism development. This means that the respondents admit that the tourism industry manages to influence their quality of life, whether they regard it to be positive or not. Those who get the benefits and costs resulting from the tourism industry would exhibit a positive perception. In contrast, those who experience loss and harm due to the tourism industry would exhibit a negative perception.

Based on the result of Table 4, we determined that the residents are prone to having a positive perception of tourism development, and thus will support this sector. In terms of positive perception, economic indicators were viewed as an important element in increasing the national income. Therefore, they agree to support tourism that may manage to create business opportunities, thus increasing the employability of local people. Meanwhile, they opined that environmental factors are the most important factors in terms of negative perception. This is because the quality of natural phenomena could deteriorate due to human activities.

6. Conclusions

It can be concluded that the residents understand that the tourism sector could strengthen the national economy, but they also want natural resources to be protected. Therefore, we suggest that government officers should be concerned about the quality of the environment, as well as focusing on the generated income. They must think thoroughly if they intend to implement a new plan, so that the local residents are not affected. Last but not least, we were surprised that perceptions on tourism development were more supportive among females than males. This is because most previous studies stated that the male group more actively supports tourism. This different situation may be because of different cultural adaptations. Thus, we need to conduct comprehensive research to understand the differing characters of males and females in Malaysia for future research. In addition, we wish to extend the social exchange theory by inclusion of a new variable under the perception of tourism impact related to political issues. This is because the residents did not trust the government policy, leading to negative effects that seemed to occur in tourism development.
Author Contributions: This work was carried out collaboratively by all authors. Zainudin Awang designed the study, wrote the protocol, and wrote the first draft of the manuscript. Asyraf Afthanorhan managed the literature searches, analyses of the study, and constructed the structural model using AMOS 21.0. Plus, he addressed the guidelines for conducting Confirmatory Factor Analysis (CFA). Sharifah TMR read and confirmed each approach applied so that the research work met the standards of objective research to guide readers and reviewers. All authors read and approved the final manuscript.

Conflicts of Interest: The authors declare no conflict of interest.

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