

## DOES ENVIRONMENTAL STIMULUS MATTERS TO TOURISTS' SATISFACTION AND REVISIT INTENTION: A STUDY ON RURAL TOURISM DESTINATIONS IN SARAWAK, MALAYSIA

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**Abstract:** Globally, the COVID-19 pandemic has had a significant influence on international tourist arrivals and receipts. This study examines the effect of environmental stimuli on tourists' satisfaction and intention to revisit rural tourism destinations in Sarawak, Malaysia. To determine the fitness of the measuring model and structural model, a total of 272 valid surveys were used. Interestingly, empirical evidence indicates that the majority of identified environmental stimuli (i.e., environmental quality, carrying capacity, and relaxation) significantly contribute to tourists' satisfaction. Additionally, it was revealed that satisfied tourists have a higher likelihood of returning, especially to rural tourism destinations in Sarawak. Additionally, a favorable attitude of local communities was discovered to be a key moderator in increasing the relationship between visitor satisfaction and intention to revisit.

**Key words:** environmental stimulus, tourists' satisfaction, revisit intention, rural tourism, S-O-R Model, Malaysia

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### INTRODUCTION

Tourism is commonly considered as one of the largest and fastest-growing sectors on the world, as well as a vital economic driver (Scott et al., 2019). However, the COVID-19 pandemic epidemic has had a substantial influence on international tourist numbers, resulting in a 72% reduction in arrivals from January to October 2020 (UNWTO, 2020). With tourist industries contributing significantly to the economic development of most countries and also to the revenue generation of local populations, it is a significant problem for countries to neglect tourism activities due to their lucrative income generating (Nicolaidis, 2020). Tourism products fall into several broad categories, including urban tourism, seaside tourism, rural tourism, ecotourism, wine tourism, culinary tourism, health tourism, and sports tourism (Camilleri, 2018). While the impact of COVID-19 continues to be felt, governments have launched a number of initiatives to revitalize and redevelop the tourism industry, in compliance with Standard Operating Procedures (SOPs). One of the approaches is to promote rural tourism destinations (Adamov et al., 2020), as this allows for the avoidance of confined spaces, close proximity, and congested spaces. Although rural tourism's economic contribution is less than that of urban tourist, with effective implementation and growth, it has the potential to be a significant source of revenue for local communities (Heikkilä et al., 2014; Sima, 2019). According to the literature, the most frequently used terms to define rural tourism include natural environment, historic heritage, customs and traditions, arts and cultures, and community engagement (Lane, 1994; Ramakumar and Rajashree, 2008; Aref and Gill, 2009; Khound, 2013; Wani and Shafi, 2013). In the Malaysian context, rural tourism is defined in the Rural Tourism Master Plan (RTMP) as tourism activities that allow people to visit rural regions and enjoy a variety of attractions such as local culture and heritage (MOCAT, 2001; Dawayan et al., 2021). Previous research has established that the useful information gleaned from travelers' experiences and preferences is critical for the rural tourism industry's development (Lavrador Silva, 2008; Carneiro et al., 2015). While the government and tourism industry promote tourism vigorously, promotion activities for rural destinations are less developed (Papeli et al., 2007). Melo and Farias (2014) emphasised the importance of fully leveraging, developing, and promoting rural tourism destinations' distinctive qualities, sceneries, and attractions in order to attain competitiveness. Furthermore, rural tourism

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development is contingent upon local community support (Ting et al., 2022) and access to natural attractions. Tourism activities are frequently over-exploited and developed to the detriment of natural resources and community quality of life. Additionally, a dearth of tourist attractions and environmental development may affect tourists' enjoyment in rural places (Yu et al., 2011). Deforestation, resource pollution (Duval, 2004; Goulding et al., 2014), and harm to marine ecosystems, which affects communities' food sources, may affect locals' perceptions of rural tourism development and jeopardise tourists' experiences. Oliveira et al. (2020) conducted a study in which they studied the effect of environmental attitudes on tourist satisfaction in natural protected areas. A recent study by Cheng et al. (2022) revealed that natural components were found satisfying visitors and behavioral intentions in nature-based tourism destination. Recognizing the critical role of natural resources in rural tourism destination development, however this link has not been adequately examined, particularly in terms of the effect of environmental stimuli on tourist satisfaction and intention to revisit. As such, this study aims to fill gaps in the literature and theory by applying the stimulus-organism-response model in studying the effect of environmental stimuli (i.e., natural resources, environmental quality, carrying capacity, and relaxation) on tourist satisfaction in rural Asia, more precisely Sarawak, Malaysia. Additionally, this study will also examine the effect of visitors' satisfaction on tourists' intention to repeat rural tourism areas using local communities' attitude as a moderator variable to strengthen the relationship between visitors' satisfaction on intention to revisit rural tourism destinations.

## LITERATURE REVIEW

### The Stimulus-Organism-Response (S-O-R) Model

The stimulus-organism-response model is a frequently utilized model in social media research (Mpinganjira, 2016; Koay et al., 2020; Ibrahim et al., 2021). Mehrabian and Russell (1974) devised the S-O-R model to describe how external environmental factors influence interior emotional effects, which result in certain behavioral reactions. There is growing evidence that the application of the S-O-R model to tourism-related studies is becoming more prevalent (Cheah et al., 2019). A recent tourism publication examined the effect of virtual reality on tourist behavioral responses using the S-O-R model (Kim et al., 2020). A series of potential influences on environmental stimulation were identified and conceived using the S-O-R model based on the literature study and S-O-R model (i.e., natural resources, quality of environment, carrying capacity, and relaxation). Tourists' satisfaction and inclination to revisit were categorized as an organism and a response, respectively. Additionally, this study evaluated the potential for local community attitudes to behave as a moderator variable or organism factor in increasing the link between visitor pleasure and intention to revisit. Figure 1 illustrates the link between the study variables of environmental stimulus, tourist satisfaction, and intent to revisit.

### Revisit Intention

In the tourism and hospitality industries, revisit intention has been repeatedly identified as a critical topic of study due to its potential to lead in numerous positive outcomes such as favorable word-of-mouth, lower marketing costs, and increased economic rewards (Som and Badarneh, 2011; Choo and Petrick, 2014; Hossain et al., 2021). Although the topic of revisit intention is not new and has been studied by authors for decades (e.g., Mechinda et al., 2009; Tubey and Tubey, 2014), authors in recent publications have continued to investigate the potential for revisit intention in tourism destinations but in different contexts (e.g., Lewis et al., 2021; Nguyen et al., 2021; Shang et al., 2021). Satisfaction has been shown to be a predictor of revisit and repurchase intentions in previous research (Mannan et al., 2019; Amoako et al., 2021). As a result, this study used revisit intention as the dependent variable and examined the factors influencing tourists' desire to revisit rural tourism destinations in Sarawak, Malaysia.

### Tourists' Satisfaction

Satisfaction has long been recognized as the primary factor influencing a tourist's future behavioral intention (Adetola et al., 2016). It is essential to any business, whether product or service-based, to achieve customer loyalty and repeat business (Cakici et al., 2019; Zeng and Li, 2021). Memorability is a crucial outcome of a tourist experience, and it influences tourist satisfaction (Vada et al., 2019). Satisfying tourists' requirements is critical since it results in travelers expressing an interest in visiting the next tourism site (Fuchs and Weiermair, 2004). According to Yoon and Usal (2005), tourist satisfaction is determined by comparing visitors' prior expectations to their actual experience. As per previous study, service quality is associated with customer satisfaction (e.g., Nuviala et al., 2012; Dires and Anteneh, 2016). In the tourism context, visitor satisfaction is a necessary condition for the development of future purchase and revisit intentions (Choo et al., 2016; Evren et al., 2020), while dissatisfaction results in adverse future behavioral intentions (Zeithaml and Bitner, 2000).

### Local Communities' Attitudes

According to Brehm et al. (2004), community can be defined as a group of individuals who share a common physical place and a common way of life. In this study, the term "local community" refers to a group of individuals who share the borders of a particular piece of land (Abas and Mohd Hanafiah, 2014). Local communities play a critical part in rural tourism development since they are sometimes referred to as "service providers," which is believed to boost the total number of tourist arrivals. Additionally, local communities serve as a focal point for tourists' transportation, information, lodging, amenities, and services (Andereck and Nyaupane, 2011). Given the effectiveness of local communities in influencing future tourist behavior, it is critical to understand how their attitudes relate to visitors' opinions on the location. As such, this study used the views of local populations as a potential moderator and examined its efficacy in improving the association between tourist satisfaction and intention to revisit rural tourism areas in Sarawak.

### **Environmental Stimulus**

Environmental concerns have emerged as the public's primary worry, followed by social-cultural and economic concerns in the tourism business. As a result of this understanding, the environment has emerged as a critical pillar for the development of sustainable tourism, particularly rural tourism destinations (Polukhina et al., 2021; Tang et al., 2021). Environmental constructs are described as connected components that pertain to the physical environment, which may include natural or man-made elements, as well as, in a broader sense, social and cultural settings (Mihalič, 2000). Dey et al., (2020) indicated the role of environmental components, such as cultural and rural attractions as tourists prefer to choose a destination. In this regard, the purpose of this study is to determine the effect of environmental constructions on tourists' happiness and intention to repeat rural tourism sites. Natural resources, environmental quality, carrying capacity, and relaxation are among the environmental constructs to be investigated.

Hens (1998) defines carrying capacity (CC) as the maximum number of people who can visit a tourism site without having an adverse effect on environmental resources while still meeting tourist needs. This definition is similar to that of Nghi et al. (2007), who define carrying capacity as the highest bearing capacity of a natural, environmental, and socioeconomic system at which the maximum number of tourists will not jeopardise sustainable development. In simple terms, ecological carrying capacity refers to the maximum number of guests that a tourism location may receive without degrading the natural environment's quality. Rural tourism destinations are increasingly focusing on carrying capacity as more visitors seek nature and cultural tourism (Wilde and Cox, 2008). Indeed, some scholars have asserted that there is a positive correlation between carrying capacity and a sustainable tourism destination (Liu, 2003), and that issues arise when carrying capacity practises are not adequately maintained (Manuel and Miguel, 2008).

This has a detrimental effect on the tourism destination's sustainability and competitiveness. The term "quality of environment" refers to the natural aspects of a place, such as stunning scenery, natural hydrologic structures, clean water, clear air, and species richness that may decrease as a result of human activity (Mihalič, 2000). Numerous investigations have confirmed that environmental quality, such as the local landscape and natural surroundings, is a necessary component of a successful tourism destination (Fons et al., 2011; Zhang and Lei, 2012). To achieve quality, both tourists and the local community must take an active role in environmental improvement and avoid further deterioration of environmental conditions. Numerous techniques for improvement are possible, including the active participation of the local community in environmental management and the development of strong ecological features, as well as tourists participating in environmental protection while visiting a tourism area.

Crouch and Ritchie (1999) describe natural resources as the nature of the environment's primary resources, which comprise flora and fauna species. Additionally, Hart (2007) argued that natural resources such as water, plants, forest, animals, soil, and stone are found in nature and can be utilised by humans. Significant resources such as flora and fauna have been discovered to be effective at attracting tourists to a place (Thong et al., 2020). However, a recent study indicated that human encroachment on natural environments has resulted in the extinction of numerous floral and faunal species (Sukserm et al., 2012). Subsequently, numerous natural resource management strategies for resource conservation have been created in collaboration with the local population and tourists. Crompton (1979) described relaxation as a person (e.g., tourist or visitor) devoting time to activities of interest, such as tourism or sports, with the goal of escaping from daily routines, having a pleasant time, or having amorous encounters. According to Cucculelli and Goffi (2016), natural resources are the most important resources for tourism destinations. Additionally, Kastenholz et al., (2020) demonstrated relaxation was important for tourists to visit rural area. These findings show that the level of relaxation supplied by a rural tourism area is critical for increasing tourist visits (Mazilu and Stancioiu, 2009).

## **HYPOTHESES DEVELOPMENT**

### **Environmental Stimulus on Tourists' Satisfaction**

A well-developed tourism destination is comprised of a diverse spectrum of tourism products (Dwyer and Kim, 2003), which include the whole range of facilities and services available locally, as well as all sociocultural, environmental, and public assets (Buhalis, 2000). Recognizing the critical role of environmental constructs in determining the success or failure of rural tourism destinations (Fons et al., 2011), this study will examine the potential of four identified environmental constructs (i.e., natural resources, environmental quality, carrying capacity, and relaxation) and their effects on tourist satisfaction. Natural resources have the highest importance in affecting tourism in a region (Lasclu et al., 2018). Scholars (e.g., Sukserm et al., 2012) have argued that natural resource conservation is required to retain tourism products (Reimer and Walter, 2013). Additionally, the quality of the environment has an effect on both the locals' quality of life and the tourists' trip experience (Hunziker et al., 2008; Hanley et al., 2009). It is self-evident that stunning landscape, pure water, and fresh air may boost a destination's competitiveness while also improving the local community's quality of life. As one of the primary reasons travellers visit rural tourism destinations is to unwind and experience nature, poor environmental quality and degraded natural resources would not satisfy tourists who travel specifically to experience high-quality landscapes (Zhang and Lei, 2012). To maintain a high-quality environment, community involvement is necessary to aid in the protection of environmental resources and to preserve the sustainability of natural ecology (Wang et al., 2010), as well as to assure the level of relaxation perceived by tourists. Carrying capacity refers to the maximum number of people that a tourism location can accommodate without jeopardizing the natural environment's quality or visitor satisfaction (Nghi et al., 2007). Carrying capacity issues receive a great deal of attention since they endanger tourist satisfaction. Richards and Hall (2000) shown in a study that good management of a tourism destinations' carrying capacity results in the destination's long-term competitiveness (Wilde and Cox, 2008).

Additionally, other academics (e.g., Mathew, 2009; Mihalič, 2000) have identified carrying capacity as a critical pillar and a critical driver of competitiveness. When the number of tourists visiting a destination increases, the amount of relaxation available to travelers diminishes. Following the review of the literature, the following hypotheses are generated:

- H1: Natural resource is positively related to tourists' satisfaction.
- H2: Quality of environment is positively related to tourists' satisfaction.
- H3: Carrying capacity is positively related to tourists' satisfaction.
- H4: Relaxation is positively related to tourists' satisfaction.

### Tourists' Satisfaction on Revisit Intention

Numerous research have demonstrated that tourists' satisfaction might result in a future behavioral desire to visit a certain tourism area (Mohamad et al., 2012; Choo et al., 2016; Thiumsak and Ruangkanjanases, 2016). Canny and Hidayat (2012) argued that it is critical to increase visitor satisfaction because dissatisfied tourists tend to spread negative word-of-mouth and thus decrease tourist revisit intention. While the majority of academics analyze the association between visitor satisfaction and intention to revisit in European nations, a few studies have examined this relationship in Asian countries (e.g., Chen and Tsai, 2007; Wang et al., 2010; Wu et al., 2014).

On the other hand, it was discovered that few studies have been conducted in the rural tourism context to examine the relationship between tourist satisfaction and behavioral intention (e.g., Jo et al., 2014; Loureiro and González, 2008; Osman, 2013; Park and Nunkoo, 2013; Rajaratnam et al., 2015). Most importantly, previous research indicates that the relationship between visitor happiness and behavior is inextricably linked, as travelers ready to return to the same tourism site were more satisfied with their first visit (Kozak and Rimmington, 2000; Som and Badarneh, 2011). The following hypothesis was developed as a result of the above discussion of available research:

- H5: Tourists' satisfaction is positively related to revisit intention.

### Local Communities' Attitudes Moderates Tourists' Satisfaction on Revisit Intention

Local communities play a crucial part in rural tourism development since they are sometimes referred to as "service providers," which can have an effect on the total number of tourist arrivals. Thus, local communities' hospitality toward tourists has been recognized as critical for a successful tourism destination, as one of the major elements influencing visitors to return to a place or to promote it to others (Thyne et al., 2006). Moreover, by discussing their travel experiences with their families, friends, and coworkers, these visitors can spread their thoughts, feelings, and attitudes about the place. All of these factors are likely to have an effect on the destination's capacity to attract both returning and new tourists (Zhang et al., 2006). According to a study conducted by Woosnam et al. (2018), the relationships between residents and tourists have a significant impact on tourists' degree of destination attachment.

Additionally, Oriade (2013) notes that destination resources include natural features, cultural history, as well as the location's surroundings and ambiance. Local communities are the best source of information about local places. The following hypothesis was developed as a result of the above discussion of existing research:

- H6: Local communities' attitude is positively moderating the relationship between tourists' satisfaction and revisit intention; such that when local communities' attitude is high, the relationship between tourists' satisfaction and revisit intention will be stronger.

On the basis of this review of existing research, the following research framework was proposed (see Figure 1):

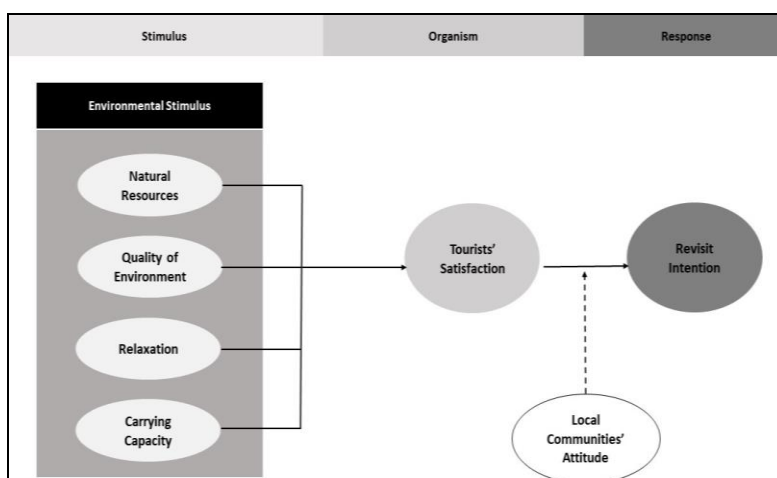


Figure 1. The proposed research model based on the S-O-R theory-based (\*Data Source: Authors' Self Collected)

## METHODOLOGY

Sarawak is one of Malaysia's thirteen states and is renowned for its plethora of cultural and natural riches (Er and Simon, 2015). The study focuses on domestic tourists because Malaysia's Ministry of Tourism, Arts, and Culture has identified ecotourism destinations as a priority for the country's post-COVID-19 tourism industry rehabilitation. Ecotourism is also projected to rise in the next year or two, as travellers seek less crowded vacation areas. As indicated in Figure 2, this study used a quantitative method, with questionnaires sent in three rural tourism locations in Sarawak in 2021. Annah Rais Bidayuh Longhouse, Rumah Benjamin Angki, and Rumah Panjang Bawang Assan were the three study locations. Due to the fact that the study was conducted during the

pandemic's recovery stage, only domestic tourists were made available. 34 items were adapted from previous research (e.g., Artuğer, 2015; Collins, 2005; Dwyer and Kim, 2003; Gebhard et al., 2007; Park and Yoon, 2009; Tran, 2011; Wu et al.,

2014) and contextualised in Malaysia (see Appendix A). Respondents were asked to assess their agreement with the statements on a seven-point Likert scale (ranging from 1 for strongly disagree to 7 for strongly agree). The G\*Power software was used to determine the minimal sample size. A sample size of 146 is advised for testing the developed research model using an a priori power analysis with a medium effect size, a significance threshold of 0.05, and a power of 0.95. 279 of 350 distributions were returned, representing a response rate of 79.71 percent. The answer rate of 79.71 percent indicates that there was no response error, as it is higher than the recommended response rate of 70%. (Nulty, 2008).

Prior to undertaking the measurement and structural analysis, a series of preliminary analyses were undertaken using the Statistical Package for Social Science 23.0 to exclude missing data and straight lining. Seven questionnaire sets were discarded during the procedure, but the remaining 272 were used to assess the fitness of the measurement model and test hypotheses. The study analysed the data using a partial least squares structural equation modelling (PLS-SEM) technique,

using the suggested 5000-bootstrap procedure (Hair et al., 2018). The process for PLS-SEM estimation was carried out using the WarpPLS programme (see Figure 1). Due to the short sample size and non-normal distribution of the data, PLS-SEM analysis was performed. Hair et al. (2017) defines as non-normal a pattern of responses with a skewness and kurtosis larger than or equal to +/- 1. (See Table 1). Because WarpPLS integrates both true composites and standard error of the mean variables, it was considered to be the more appropriate programme for analysing the proposed study model.

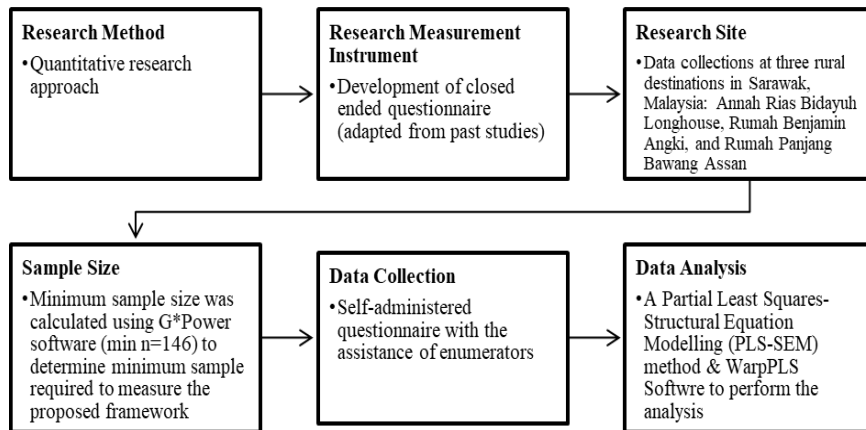


Figure 2. Research methodology flow chart

**FINDINGS**

**Assessment of the Measurement Model**

The measurement (outer) model was examined first, using the two-step technique proposed (Hair et al., 2018). Confirmatory factor analysis was used to assess the measuring scales' reliability, convergent validity, and discriminant validity (CFA). All item loadings exceed 0.50 (Bagozzi et al., 1991), and all constructs have composite reliability (CR) and average variance extracted (AVE) values greater than 0.70 (Chin, 2010) and 0.50 (Fornell and Larcker, 1981), respectively, with the exception of quality of environment, where the AVE value was 0.421.

However, even if the AVE value for environmental quality is less than 0.5, as Fornell and Larcker (1981) imply, AVE values less than 0.5 but larger than 0.4 are acceptable if the CR value is greater than 0.6, indicating that the construct's convergent validity is still satisfactory. Internal consistency was obtained as a result. The value of AVE was square-rooted and compared to the correlation of the construct with the other constructs in the study model for the discriminant validity analysis displayed in Table 3, with all values exceeding the correlation of each construct (Chin, 2010). As a result, the measurement model was established to be sufficiently reliable, convergent, and discriminant valid. For tourists' contentment and revisit intention, the coefficient of determination (R2) was 0.20, indicating a reasonable model that explained more than 20% of the variation (Cohen, 1988).

Table 1. The skewness and excess kurtosis

	NR	QoE	CC	Relax	Satis	Revisit	LCA
Skewness	-0.659	-0.180	-0.488	-0.158	-0.251	-0.661	0.335
Exc. kurtosis	-0.038	1.265	-0.241	-0.102	0.310	-0.295	0.579

Note: NR = Natural Resources; QoE = Quality of Environment; CC = Carrying Capacity; Relax = Relaxation; Satis = Tourists' Satisfaction; Revisit = Revisit Intention; LCA = Local Communities' Attitude

**Assessment of the Structural Model**

The remaining hypotheses were examined using the inner (structural) model's p-values, t-values, and standardised coefficient beta values. The findings of the hypotheses testing are summarised in Table 4 and Figure 3. The t value should be greater than 1.645 (p < 0.05) or 2.33 (p < 0.01) for one-tailed hypothesis testing. Four out of five of the direct hypotheses suggested and tested were supported by the statistical analysis. The study discovered that the hypothesised environmental stimuli (i.e., environmental quality, relaxation, and carrying capacity) all contribute considerably to tourist satisfaction. On the other side, it was revealed that tourists' contentment influenced their intention to revisit. Interestingly, the data indicated that the attitude of local residents positively and considerably modifies the association between tourist satisfaction and intention to revisit national parks.

Thus, statistical analysis supported H2, H3, H4, H5, and H6, but not H1. To demonstrate the model's predictive validity, we set the Q2 values for visitors' satisfaction and revisit intention to 0.212 and 0.193, respectively, in accordance with Hair et al. (2017)'s recommendation that a Q2 value greater than zero be considered significant.

Table 2. Results of measurement model

Model Construct	Measurement Item(s)	Load-ing	Composite Reliability (CR)	Average Variance Extracted (AVE)
Natural Resources	NR_01	0.941	0.917	0.787
	NR_02	0.948		
	NR_03	0.930		
Quality of Environment	QoE_01	0.711	0.742	0.421
	QoE_02	0.933		
	QoE_03	0.959		
	QoE_04	0.942		
Carrying Capacity	CC_01	0.779	0.938	0.791
	CC_02	0.747		
	CC_03	0.695		
	CC_04	0.745		
Relaxation	Relax_01	0.558	0.814	0.540
	Relax_02	0.802		
	Relax_03	0.751		
	Relax_04	0.861		
Tourists' Satisfaction	Satis_01	0.760	0.895	0.500
	Satis_02	0.858		
	Satis_03	0.849		
	Satis_04	0.867		
	Satis_05	0.795		
	Satis_06	0.850		
	Satis_07	0.724		
	Satis_08	0.828		
	Satis_09	0.924		
Revisit Intention	RI_01	0.713	0.889	0.670
	RI_02	0.768		
	RI_03	0.745		
	RI_04	0.795		
Local Communities' Attitude	LCA_01	0.931	0.876	0.556
	LCA_02	0.922		
	LCA_03	0.949		
	LCA_04	0.896		
	LCA_05	0.878		
	LCA_06	0.644		

Table 3. Discriminant validity of constructs

	NR	QoE	CC	Relax	Satis	RI	LCA
Natural Resources	<b>0.887</b>						
Quality of Environment	-0.023	<b>0.649</b>					
Carrying Capacity	0.131	0.117	<b>0.890</b>				
Relaxation	0.079	0.220	0.655	<b>0.735</b>			
Tourists' Satisfaction	0.019	0.098	0.353	0.343	<b>0.704</b>		
Revisit Intention	0.205	0.256	0.468	0.507	0.404	<b>0.819</b>	
Local Communities' Att	-0.233	-0.119	-0.120	-0.078	-0.132	-0.141	<b>0.745</b>

Note: Diagonals represent the square root of the average variance extracted (AVE) while the other entries represent the correlations.

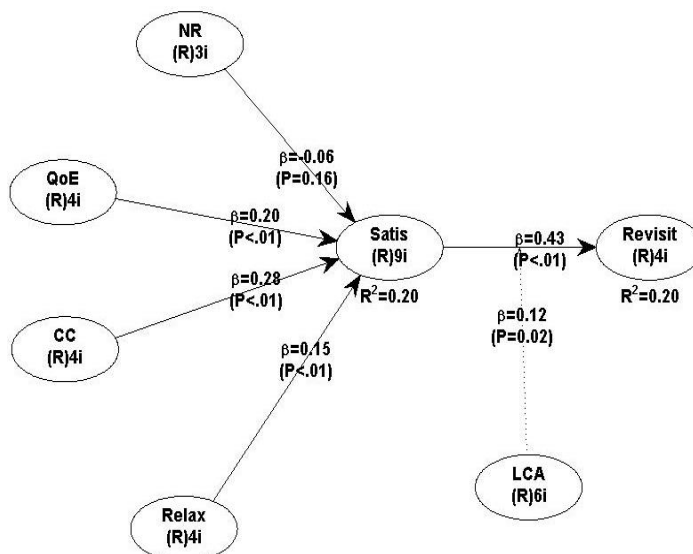


Figure 3. Research model with Path Coefficient and P-Values

Table 4. Path coefficients and hypothesis testing (Note: p < 0.01\*\* = t > 2.33; p < 0.05 = t > 1.645\*)

Hypothesis	Relationship	Standard Beta	P-value	t-value	Decision
H1	Natural Resources → Tourists' Satisfaction	-0.061	0.155	-1.017	Not Supported
H2	Quality of Environment → Tourists' Satisfaction	0.203	<0.001	3.469**	Supported
H3	Carrying Capacity → Tourists' Satisfaction	0.280	<0.001	4.842**	Supported
H4	Relaxation → Tourists' Satisfaction	0.153	0.005	2.586**	Supported
H5	Tourists' Satisfaction → Revisit Intention	0.433	<0.001	7.663*	Supported
H6	Local Communities' Attitude * Tourists' Satisfaction → Revisit Intention	0.118	0.024	1.991*	Supported

**DISCUSSION**

Using the S-O-R model, this study sought to determine the effect of environmental stimuli (i.e., natural resources, environmental quality, carrying capacity, and relaxation) on tourists' pleasure, which would then result in a desire to revisit rural tourism destinations in Sarawak, Malaysia. This study was the first to evaluate the moderating effect of local community attitudes on the link between visitor satisfaction and intention to revisit. Five of the six hypotheses tested, namely H2, H3, H4, H5, and H6, were found to be supported. The relationship between natural resources and tourist satisfaction is examined in Hypothesis 1. Contrary to predictions, the empirical findings indicated that natural resources had no discernible effect on tourists' satisfaction ( $\beta = -0.061$ ;  $p = 0.155$ ;  $t = -1.017$ ), indicating that H1 was not supported. The contradictory findings may be explained by the fact that tourists visiting these rural tourism areas lack possibilities to explore and experience the accessible natural resources due to movement restrictions. The majority of tourists are denied access to the waterfall and river in order to prevent the spread of COVID-19. Hypothesis 2 investigates the relationship between environmental quality and tourist satisfaction. As expected, the empirical findings indicated that environmental quality had a positive and substantial effect on tourists' satisfaction ( $\beta = 0.203$ ;  $p < 0.001$ ;  $t = 3.469^{**}$ ), supporting H2. When visiting rural tourism areas, it is widely accepted that the majority of tourists are worried about the condition of the environment. It is believed that tourists are more satisfied when the surroundings is of good quality. Hypothesis 3 investigates the relationship between carrying capacity and satisfaction among tourists. Carrying capacity had a significant effect on tourists' satisfaction ( $\beta = 0.280$ ;  $p < 0.001$ ;  $t = 4.842^{**}$ ), indicating that H3 was supported. At the time of the investigation, a restricted number of visitors are permitted to enter per session due to typical operational procedures. As a result, visitors believe it is critical to limit the number of tourists visiting rural tourism locations at any given moment.

Tourists believe that the primary reason for visiting rural tourism destinations is to appreciate nature and avoid congested areas; thus, the carrying capacity of a tourism destination is a critical measure of tourist satisfaction.

Hypothesis 4 explores the relation between relaxation and satisfaction among travelers. The statistical data indicated that relaxing had a significant effect on tourist satisfaction ( $\beta = 0.153$ ;  $p = 0.005$ ;  $t = 2.586^{**}$ ), supporting H4. The majority of travelers that visit rural tourism areas do so to escape from their daily stressful routines and to unwind. Thus, it is critical for rural tourism sites to provide a relaxing environment, as the degree of relaxation has been shown to increase tourist satisfaction. The fifth hypothesis explores the relationship between visitor satisfaction and intention to revisit. As predicted, the empirical findings indicated that tourists' satisfaction had a positive and substantial effect on their intention to revisit ( $\beta = 0.433$ ;  $p < 0.001$ ;  $t = 7.663^{**}$ ), supporting H5. According to prior research (e.g., Choo et al., 2016; Thiumsak and Ruangkanjanases, 2016), tourists' happiness typically results in a desire to revisit a tourism destination. As a result, it is critical for rural tourism destinations to provide maximum support and warm hospitality in order to increase tourist satisfaction, as dissatisfaction often results in negative word-of-mouth and a lack of future visit intention.

Hypothesis 6 investigated the moderating effect of local community attitudes on visitor satisfaction and inclination to return. Interestingly, the empirical findings indicated that the attitude of local communities moderated the association between visitor satisfaction and intention to revisit ( $\beta = 0.110$ ;  $p = 0.024$ ;  $t = 1.991^*$ ), indicating that H6 was supported. Local community members frequently functioned as the sole service provider in rural tourism destinations. They provide transportation, homestays, tour guides, and souvenirs, among other services. Local communities supply all services in remote tourism sites. Additionally, it is critical to have a supportive local community, since a positive attitude toward rural tourism destinations tends to improve the association between tourist satisfaction and intention to return.

## CONCLUSION

To summarize, this study expanded the scope of the S-O-R model and its application to rural tourism. The purpose of this study was to determine the effect of environmental stimuli (stimulus), tourist satisfaction (organism), and intention to revisit rural tourism sites in Sarawak, Malaysia. Notably, this study explored the moderating effect of local community attitudes on the relationship between visitor satisfaction and intention to revisit. As a result, the second key component in this study is the attitudes of local communities. This study contributes significantly to the efforts of tourism industry players, particularly destination marketers and practitioners, as well as local tourism authorities, to advertise and develop rural tourism destinations. Additionally, tourism stakeholders, such as relevant ministry departments, should prioritize the development of rural tourism destinations' environmental aspects and package them as one of the tourism destinations' primary attractions in order to attract more domestic tourists to Sarawak's various rural tourism destinations, particularly during the post-Covid-19 tourism recovery. As with any research, this study has several limitations.

Firstly, this study relies primarily on samples drawn from domestic tourists (as the research was conducted during recovery stage of the pandemic), who have visited the selected study rural tourism destinations in Sarawak, Malaysia. The different cultural aspects for rural tourism destinations of Sarawak with other rural tourism destinations in different countries may restrict the generalizability of the outcomes. Secondly, the data collection was done at one point in time and not from different points in time. Thus, the causality effect of this study cannot be determined due to data collected at one point and not from the same group of participants over a longer period of time. Therefore, only conclusions and discussions of the general relationships between variables as well as the moderating effect could be shown in this study. In short, a longitudinal study should be carried out and replace the cross-sectional study to determine the causality effect of the study.

Despite these limitations, this research study posed several strengths and significantly contributed to both theoretical and practical implications. The current research findings significantly provide a holistic view and add value to the understanding of the importance of environmental stimulus (i.e., natural resources, quality of environment, relaxation, and carrying capacity) and its potential impacts on tourists' satisfaction and revisit intention based on the S-O-R model from the perspective of the only demand side of tourism stakeholders (i.e., tourists) in the Sarawak rural tourism industry. The findings of this study add value to the current rural tourism literature as well as contribute some practical insights to the tourism stakeholders on the marketing and management of rural tourism destination.

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