

## DEVELOPING HOST COMMUNITY'S SUPPORT MODEL FOR TOURISM DEVELOPMENT IN PURI REGION, INDIA

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**Abstract:** The study aims to develop a host community's support model for tourism development based on the principles of Social Exchange Theory for heritage tourism destinations in a developing country. For the case study, three communities from the Puri region, a popular heritage tourism destination of eastern India, are selected. The survey instrument was a questionnaire survey, and 450 samples were collected. A scale was developed to measure the host community's attitudes and perceptions. The measurement scale comprises seven factors: six exogenous factors: Economic Impact; Positive Socio-Cultural Impact; Development and Maintenance of Heritage and Infrastructure; Image of the Region; Negative Socio-Cultural Impact; Environmental Issues, and one endogenous factor: Support for Tourism Development. The structural relationship between exogenous factors and endogenous factors was examined through Structural Equation Modelling. The result confirmed that the perceived tourism impacts significantly influence the host community's attitude. The findings suggest that when the host community perceives the positive tourism impacts, their support for tourism development gets influenced positively and vice versa. This confirms the explanatory power of the perceived tourism impacts to explain the host communities' attitude toward tourism development and the applicability of Social Exchange Theory. However, the findings contradict Butler's Tourism Area Life Cycle model in describing the host community's attitude toward the destination in the development stage.

**Key words:** host community's attitude, perceived tourism impacts, social exchange theory, support for tourism development, butler's tourism area life cycle model

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### INTRODUCTION

Tourism is an important industry contributing to the economic growth of the tourism destination. It brings numerous opportunities and challenges (economic, socio-cultural, and environmental) to the region and the host communities (Uslu et al., 2020). The positive and negative impacts incurred due to tourism define the host community's perception. The perception of tourism impacts influences their support and attitude for tourism development (Dyer et al., 2007). For sustainable tourism development, the support and cooperation of the host communities are essential (Choi and Sirakaya, 2005; Kurniawan et al., 2021). Hence it is necessary to understand the determinants influencing their support for tourism development. Numerous research has been conducted since mid-1970, examining the host community's attitude (Sirakaya et al., 2002a). These studies primarily focused on the host communities from developed countries like the United States, European countries, Australia, etc. Lesser attention has been paid to the host communities from developing countries (Sirakaya et al., 2002a). The destinations studied in previous literature were mainly in the *mature stage* of Butler's 'Tourist Area Life Cycle' (TALC) model. Chigozie Jude Odum (2020) found that the *development stage* of TALC model is less studied and they emphasized on more research on different stages of TALC model in different locations around the world, to confirm the applicability as well as limitations of TALC model globally. Sirakaya et al. (2002a), also claimed that host communities are heterogeneous in nature. Their perceptions and attitudes vary with their physical locations and stages of development (Ap and Crompton, 1993; Deery et al., 2012; López et al., 2018; Swain and Sthapak, 2022). To increase the explanatory power of the behavioral models many researchers have emphasized the need to study more host communities worldwide (Dyer et al., 2007; Gursoy and Rutherford, 2004; Nunkoo et al., 2013; Sharpley, 2014).

This establishes the necessity to study host communities from different geographical locations with varied social, cultural, and economic backgrounds and destinations in different stages of development. This paper examines the determinants influencing the host community's support for tourism development for the heritage destination in the *development stage* in the Puri region, India, and examines the applicability of behavioral models.

### LITERATURE STUDY

Perceived tourism impacts and their influence on the support of tourism development are researched from many prospective. Brida et al. (2011); Ouyang et al. (2019); Yoon et al. (2001) claimed that both the positive and negative

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impacts of tourism influence the host community's support for tourism development. To explain the host community's perception of tourism impacts; and their support towards tourism development, the Social Exchange Theory (SET) is widely adopted (Adongo et al., 2019; Eslami et al., 2019; Nunkoo, 2016; Shtudiner et al., 2018). SET is the oldest theory of human social behavior (Nunkoo, 2016). According to SET, host communities are likely to be engaged in the exchange process with tourists if they believe tourism benefits are more than the cost (Kurniawan et al., 2021). The economic impact of tourism is the most significant impact and has been widely studied. The host community recognizes the economy-boosting power of tourism. Tourism generates employment opportunities and promotes the growth of local businesses (Dyer et al., 2007; Nunkoo, 2016); it also contributes to the individual income (Liu and Var, 1986; Slabbert et al., 2021). Almost all the previous studies confirmed that economic impact positively and directly influences the support of the host community (Dyer et al., 2007; Gursoy and Rutherford, 2004; Nunkoo, 2016; Nunkoo and Ramkissoon, 2011; Slabbert et al., 2021).

The socio-cultural impacts are perceived both positively as well as negatively. Several studies such as Ap and Crompton (1993); Choi and Sirakaya (2005); Sirakaya et al. (2002b); Tosun (2002) found that when the host community perceives impacts like increase in crime rate, illegal gaming, prostitution, cultural erosion, change in the value system, etc. due to tourism (Khoshkam, Marzuki, and Al-mulali, 2016; Lankford and Howard, 1994; Nunkoo and Ramkissoon, 2011; Zamani-Farahani and Musa, 2012), their attitude for tourism development gets negatively influenced (Gursoy and Rutherford, 2004). While Khoshkam, Marzuki, and Al-Mulali (2016); Long and Kayat (2011); Raj Sharma et al. (2022); Uslu et al. (2020) confirmed that when host communities perceive the impacts like more scope of cultural exchange, the revival of cultural heritage, more recreational opportunities, etc. their attitude towards tourism development tends to get positively influenced (Dyer et al., 2007; Gursoy and Rutherford, 2004).

Hence socio-cultural impact can positively and negatively influence the host community's attitudes. Apart from this, some physiological impacts like destination image also have a significant influence that can positively influence the host community's perception as it makes them feel proud of their culture and region (Lee et al., 2005; Ramkissoon and Nunkoo, 2011). The environmental impacts like pollution, littering, damage to the natural environment, over-crowding, etc., are mostly perceived negatively by the host community (Chen, 2001; Yoon et al., 2001) therefore, it negatively influences their attitude towards tourism development (Uslu et al., 2020).

The physical development of the region, like the development of new infrastructure, amenities, and services, maintenance of existing infrastructure and heritage structures are also found to significantly and positively influence the host community's attitude (Nunkoo and Ramkissoon, 2011; Vargas-sánchez, 2011).

However, most of these findings are from developed countries. Due to limited studies, it is still premature to draw firm conclusions about the validity of SET and the predictive potential of the perceived tourism impacts for the host communities from heritage tourism destinations where pilgrimage is prevalent in developing countries.

Apart from tourism impacts, (Butler, 1980) claimed that the stages of development of the destination also influence the host community's attitude. He explained this with the '*Tourist Area Life Cycle*' (TALC) model. The model describes the evolution of a tourism destination through six predictable stages: exploration, involvement, development, consolidation, stagnation, and decline or rejuvenation Butler (1980). This model not only defines the physical changes in the destination but also explains the tourist typology and the host community's attitude during each stage. Several researchers extensively used TALC as the framework like Zhong et al. (2008); Schlemmer et al. (2020) etc. and confirmed its applicability. However, studies like Chigozie Jude Odum (2020) found it difficult to establish its relevance for destinations in the *development stages* for the global South and emphasized the need for further research in different geographical regions. For South Asian countries like India, lesser studies have been conducted to verify the applicability of TALC. The aim of the present study is to identify the factors influencing the host community's attitude in Puri, a heritage tourism destination in India. Additionally, the application of the SET and TALC models will be examined. The objectives of this paper are:

1. To identify the underlying constructs measuring the host community's perception of tourism impacts and their attitude towards tourism development for the Puri region using Exploratory Factor Analysis (EFA) and examining the validity of each construct (using the Cronbach Alpha reliability test).

2. To examine the reliability and validity of the measurement scale by Confirmatory Factor Analysis (CFA).

3. To propose a structural model for explaining the relationship between the host community's support for tourism development and perceived tourism impacts using Structural Equation Modeling (SEM).

## STUDY AREA

India is geographically a large country with substantial economic, social, and cultural diversity. It has numerous tourist sites with several kinds of tourism, however, heritage tourism is most prevalent as the country is enriched with several tangible and intangible heritage. For the present study, host communities from a popular heritage tourism destination, the Puri region from Odisha, an eastern state of India (refer to Figure 1), is selected. Puri region has many important Hindu pilgrimage and heritage sites, like the Jagannath temple (one of the most sacred places for the Hindu religion), Konark temple (UNESCO World Heritage site), Lokhanath temple, Sakshi Gopal temple, holy water bodies, and several other temples with significant religious and heritage value. Puri region is also known for its Golden beaches, Chilika lake (the world's largest brackwater lagoon), and other natural features. Several religious festivals, like *Rath yatra*, *Chandan yatra*, etc., are celebrated throughout the year, marking the religious and cultural richness of the region.

These attributes attract numerous tourists, especially heritage and pilgrimages. The region is going through several noticeable developments (new infrastructure and amenities) like roads, bus stands, hotels, restaurants, public facilities, etc. The elaborate and modern facilities are replacing the conventional one. Investors from outside are investing in

hotels, cafes, resorts, shopping malls, etc. Natural and cultural attractions are developing in the region, and various fairs and festivals are organized, such as the Konark festival, Puri beach festival, eco-retreat festival, etc., to increase tourist footfall and popularity of the region. Tourism is not just limited to pilgrimage and heritage; but also other kinds of tourism, like nature tourism, leisure tourism, etc., is also taking place in the region. These indicate that the destination is in the *development stage*, as explained by Butler (1980) in the TALC model. Javed and Tučková (2020) also confirmed that tourism in India is mostly in the *development stage*.

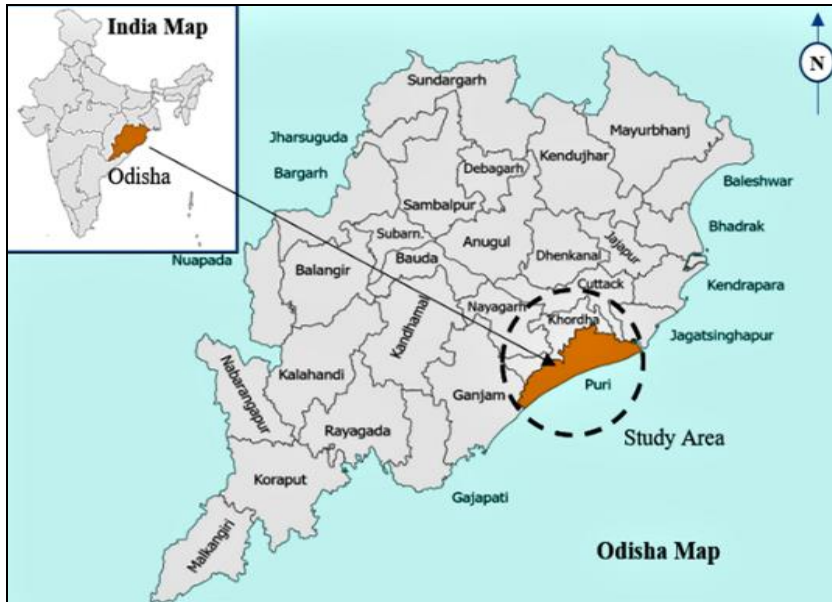


Figure 1. Map of Study area (Source: Author, 2022)

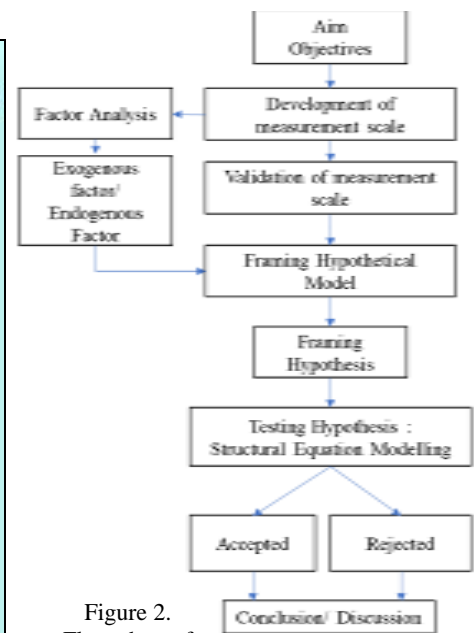


Figure 2. Flow chart of research methodology (Source: Author, 2022)

## METHODOLOGY

A brief description of the research method followed in this study is shown in Figure 2. The measurement scale to measure the tourism impacts for the study has been adopted from the study of Gursoy and Rutherford (2004). SET is used as the theoretical base to understand the attitude of host communities, and the validity and reliability of the scale were checked through the measurement scale development approach.

### 1. Sampling and Data Collection

The targeted population for this study was the host communities from three popular tourist destinations: Puri town, Konark town, and Satapada village of the Puri region. A total of 450 samples were collected from the three communities through self-administered questionnaires. Cochran's formula recommended a minimum sample size of 385. The sample size also holds good for Structural Equation Modelling (minimum of 300 samples), as recommended by Hair et al. (1987). The simple random sampling technique was used to collect the samples. This gives each population unit an equal chance of being drawn into the sample. The survey was conducted from mid of August to the end of November 2022.

### 2. Questionnaire Development

The first section of the questionnaire aims to understand the host community's socio-demographic profiles. The second section aims to measure perceived tourism impacts. From the literature, 26 indicators were selected, broadly covering economic, social, cultural, and environmental impacts; psychological wellbeing, and development of physical infrastructure in the region. Expert opinion was solicited to check the relevance of indicators for the heritage tourism destination of a developing country. Seven experts were engaged for this purpose, including community representatives, urban planners, and government officials working in tourism development in heritage regions. Based on expert opinion, eighteen indicators were selected for further analysis. The questionnaire was developed from these indicators. These indicators are referred as the variable (VAR) in the analysis section. The impact statements were measured on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Three indicators were added to the questionnaire to assess the host community's support for tourism development. These three indicators were also evaluated on the same scale.

To check the clarity of the questionnaire, a pilot survey was conducted on 25 community members of the Puri region. A few rectifications were made based on their comments and suggestions, and the questionnaire was finalised.

### 3. Data Analysis

The data analysis was carried out through several statistical methods using Excel, Statistical Package for the Social Sciences (SPSS), and Analysis of Moment Structures (AMOS). Descriptive statistics, like the mean, median, and mode, were used to describe the data. Exploratory Factor Analysis (EFA) was carried out to identify the dimensionality of the impact statements. The unidimensionality of the constructs was tested with Confirmatory Factor Analysis (CFA),

ensuring that each indicator cluster has one underlying construct. The reliability and validity of the measurement model were checked. To test and evaluate the causal relationship between the constructs, Structural Equation Modeling (SEM) is utilized. In the last decade, SEM has been widely used to examine the relationship between the factors in tourism research (Dyer et al., 2007; Eusébio et al., 2018; Gursoy and Rutherford, 2004; Nunkoo and Ramkissoon, 2011; Papastathopoulos et al., 2020; Rasoolimanesh et al., 2017; Yoon et al., 2001).

## FINDINGS

### 1. Sample Characteristics

A total of 450 samples were analysed. The respondents are predominantly male ( $n = 326$ , 72%). The distribution of age was: less than 20 years ( $n = 46$ , 10%), 20 - 40 years ( $n = 169$ , 38%), 41 - 60 years ( $n = 182$ , 40%), more than 60 years ( $n = 53$ , 12%). Most respondents are educated up to matric level ( $n = 151$ , 34%) or up to higher secondary level ( $n = 158$ , 35%). Maximum respondents reside in the community between 10 - 20 years ( $n = 145$ , 33%), while 27% of respondents reside there between 21 - 30 years. Most of the respondents ( $n = 145$ , 32%) have a moderate economic dependency on tourism, whereas 23% of the respondents are not dependent on tourism. Around 30% of the respondents are actively involved in tourism, while the rest primarily engage in the agricultural or service sectors (Table 1). The respondents have displayed high degree of willingness to participate in tourism sectors if they get an opportunity, as they see tourism as a prosperous industry.

### 2. Descriptive Statistics

The distribution of mean values ( $m$ ) reflects that the respondents have a favorable perception (as  $m > 3$  for all positive impacts) (refer to Table 2) towards tourism development and its positive impacts. The respondents agree that there should be more tourism, and they also agree that it contributes significantly to the development of the region (VAR 1,2 and 3;  $m > 3$ ) (refer to Table 2). The respondents also recognize the economic and employment-generating power of tourism (VAR 4 & 5;  $m > 3$ ), and they also strongly feel that property price has increased due to tourism development (VAR 6;  $m > 3$ ). The respondents agree that tourism contributes to the socio-cultural upliftment of the region through cultural exchange, the revival of cultural heritage, etc. (VAR 7, 8 & 9;  $m > 3$ ). At the same time, they disagree that tourism exerts negative socio-cultural impacts in their region like an increase in the crime rate; illegal activities such as drugs and prostitution; customization of cultural practices; development of artificial culture; change in value system or behavior, etc. (VAR 16,17,18 & 19,  $m < 3$ ) (Table 2). The respondents also disagree that tourism contributes to environmental pollution or overcrowding (VAR 20 & 21;  $m < 3$ ). On the other hand, the respondents strongly agree that due to tourism, new infrastructure, and public facilities are developing, and heritage (tangible and intangible) conservation and maintenance is taking place (VAR 10, 11, 12 & 13,  $m > 3$ ). They are also in agreement that tourism has enhanced their sense of pride in their culture and region (VAR 14, 15;  $m > 3$ ) (Table 2).

### 3. Constructs Dimensionality

Factor Analysis (EFA) (varimax rotation) was carried out for 21 variables (VAR), i.e., eighteen perceived impact indicators and three general perceptions for tourism support, to find its dimensionality. Before conducting the EFA, the suitability of the data or sampling adequacy was checked by performing Kaiser-Meyer-Olkin (KMO) and Bartlett's test of Sphericity. Both test confirmed that the sample is adequate to perform factor analysis. EFA resulted in a seven-factor solution based on their underlying relationship, which explains 77.49% of the total variance (Table 2).

The factor loading for all the items were above 0.4 for a single factor only, with no cross-loading on multiple factors above 0.4 (as suggested by Hair et al., 1987). The Cronbach alpha value for all seven factors is more than 0.7 (Table 2). Nunnally and Bernstein (1994) recommended a value of more than 0.7 as reliable, hence establishing the reliability of the measurement instrument. The factors are named based on the characteristics of the tourism impact indicators (variables) it comprised off. Factor 1 is "Support for Tourism Development" (STD); it has three variables (VAR 1, 2 & 3) (Table 2) related to the perception of the host community towards their support for tourism development. Factor 2 is "Economic Impact" (ECI); has three variables (VAR 4, 5 & 6) focusing on the economic benefits incurred due to tourism. Factor 3 is "Positive Socio-cultural Impacts" (PSC), which is comprised of three variables (VAR 7, 8 & 9) that reflect the positive contribution of tourism toward the socio-cultural structure of the community. Factor 4 is a physical

Table 1. Socio-demographic profile of the respondents  
(Source: Author, 2022) Note: Total sample size is 450

Sr. No.	Variables	N	Sample (%)
<b>1</b>	<b>Age</b>		
i	Less than 20yrs	46	10%
ii	20yrs – 40 yrs.	169	38%
iv	41 yrs. – 60 yrs.	182	40%
v	More than 60 yrs.	53	12%
<b>2</b>	<b>Gender</b>		
i	Male	326	72%
ii	Female	124	28%
<b>3</b>	<b>Religion</b>		
i	Hindu	422	94%
ii	Other religions	28	6%
<b>4</b>	<b>Level of Education</b>		
i	No school	39	9%
ii	Matric level	151	34%
iii	Higher secondary level	158	35%
iv	Graduation level	102	23%
<b>5</b>	<b>Length of stay in the community</b>		
i	Less than 10 years	120	27%
ii	10 – 20 years	149	33%
iii	21 years – 30 years	121	27%
iv	Above 30 years	60	13%
<b>6</b>	<b>Economic dependency on tourism</b>		
i	High	99	22%
ii	Moderate	145	32%
iii	Low	104	23%
iv	Not at all	102	23%
<b>7</b>	<b>Involvement in tourism (decision making)</b>		
i	Involved	136	30%
ii	Not Involved	314	70%

factor that is “Development and Maintenance of Infrastructure and Heritage” (DMI); it is comprised of four variables (VAR 10, 11, 12 & 13), which focuses on the influence of tourism on the development of new infrastructure, services, and amenities. It also includes the maintenance and conservation of the tangible and intangible heritage of the region. Factor 5 is a psychological factor that is the “Image of the region” (ITR) which is comprised of two variables (VAR 14 & 15) that describe the role of tourism in improving the image of the region and uplifting the pride of the host community for their region and culture. Factor 6 is “Negative Socio-cultural Impacts” (NSC); it has four variables (VAR 16, 17, 18 & 19) that focus on the adverse effect of tourism on the socio-cultural characteristics of the community. Factor 7 is “Environmental Issues” (ENV); it consists of two variables (VAR 20 & 21), which highlight the negative impact of tourism on the environment of the region (Objective 1 is achieved). The overall mean for the factors indicates that the respondents have favorable responses for STD, ECI, PSC, DMI, and ITR (as  $m > 3$ ). In contrast, the respondents show disagreement towards the negative impacts that are NSC and ENV (as,  $m < 3$ ) (Table 2).

Table 2. Exploratory Factor Analysis (Source: Author, 2022)

	Factors / Variables	Mean m	Factor Loading	EV	TVE (%)	Cronbach's alpha
<b>Factor 1</b>	<b>Support for Tourism Development (STD)</b>	<b>3.3</b>		1.3	6.06	0.816
VAR1	Tourism has made a significant contribution to the development of my region	3.12	0.857			
VAR2	Tourism is an integral part of my region	3.31	0.774			
VAR3	There should be more tourism in my region	3.57	0.63			
<b>Factor 2</b>	<b>Economic Impact (ECI)</b>	<b>3.9</b>		2.03	9.68	0.93
VAR4	There are more economic opportunities in my region	3.92	0.853			
VAR5	Local business is thriving in my region	3.92	0.872			
VAR6	The price of property has increased	3.92	0.872			
<b>Factor 3</b>	<b>Positive Socio-Cultural Impact (PSC)</b>	<b>3.1</b>		1.62	7.7	0.827
VAR7	There are many interesting things to do in my region.	3.06	0.827			
VAR8	Tourism provides an opportunity to interact with tourists and know other culture	3.08	0.881			
VAR9	Tourism helps in the revival of the cultural heritage of my region (folk dance, music, local cuisine)	3.13	0.736			
<b>Factor 4</b>	<b>Development and Maintenance of Heritage and Infrastructure (DMI)</b>	<b>3.6</b>		3.13	14.9	0.835
VAR10	New facilities and infrastructure have developed, which improved the appearance of my region	3.55	0.84			
VAR11	The local bodies are promptly maintaining the public facilities	3.79	0.746			
VAR12	There is better shopping, dining, and recreational opportunity in my region	3.5	0.814			
VAR13	The local government is interested in maintenance and conservation of the tangible (built and natural heritage etc.) and intangible heritage.	3.55	0.746			
<b>Factor 5</b>	<b>Image of the Region (ITR)</b>	<b>3.1</b>		1.08	5.14	0.874
VAR14	Due to tourism, my region is more popular, and it showcases my region in a positive light.	3.07	0.911			
VAR15	Tourism has made me feel proud of my region and culture	3.04	0.92			
<b>Factor 6</b>	<b>Negative Socio-Cultural Impact (NSC)</b>	<b>2.6</b>		6.13	29.18	0.871
VAR16	Crime, alcohol consumption, illegal gaming, drugs, prostitution, etc. have increased in my region	2.46	0.847			
VAR17	Customization of cultural practices, rituals, festivals, etc. is taking place to fulfil tourist demand	2.78	0.806			
VAR18	Artificial culture is developing in my region, which leads to cultural erosion in the region	2.66	0.837			
VAR19	The behaviour and value system are changing negatively among the youth	2.52	0.82			
<b>Factor 7</b>	<b>Environmental Issues (ENV)</b>	<b>1.8</b>		1.01	4.81	0.794
VAR20	Due to tourism, my region is more crowded	1.85	0.878			
VAR21	Due to tourism, my region is more polluted	1.75	0.893			

Total variance explained: 77.49%; Note: Variable is denoted as VAR; Mean as  $m$ ; Eigen Value as EV; Total Variance Explained as TVE

Table 3. The measurement models (Source: Author, 2022)

CR = Construct Reliability, AVE = Average Variance Explained

Sr.No	Impact Factors	CR	AVE
Factor 1	Support for Tourism Development (STD)	0.816	0.601
Factor 2	Economic Impact (ECI)	0.93	0.816
Factor 3	Positive Socio-Cultural Impact (PSC)	0.837	0.633
Factor 4	Development and Maintenance of Heritage and Infrastructure (DMI)	0.836	0.561
Factor 5	Image of the Region (ITR)	0.876	0.779
Factor 6	Negative Socio-Cultural Impact (NSC)	0.872	0.631
Factor 7	Environmental Issues (ENV)	0.796	0.662

Table 4. Correlation Matrix (Source: Author, 2022)

Note: <sup>a</sup> = Average Variance Extracted;

<sup>b</sup> = Inter-construct squared correlations

Factors	NSC	DMI	ECI	PSC	STD	ITR	ENI
<b>NSC</b>	<b>0.794<sup>a</sup></b>						
<b>DMI</b>	-0.212 <sup>b</sup>	<b>0.749<sup>a</sup></b>					
<b>ECI</b>	-0.374 <sup>b</sup>	0.488 <sup>b</sup>	<b>0.903<sup>a</sup></b>				
<b>PSC</b>	-0.055 <sup>b</sup>	0.377 <sup>b</sup>	0.365 <sup>b</sup>	<b>0.796<sup>a</sup></b>			
<b>STD</b>	-0.39 <sup>b</sup>	0.573 <sup>b</sup>	0.563 <sup>b</sup>	0.553 <sup>b</sup>	<b>0.775<sup>a</sup></b>		
<b>ITR</b>	0.226 <sup>b</sup>	0.062 <sup>b</sup>	-0.197 <sup>b</sup>	0.271 <sup>b</sup>	0.157 <sup>b</sup>	<b>0.883<sup>a</sup></b>	
<b>ENI</b>	0.368 <sup>b</sup>	-0.09 <sup>b</sup>	-0.234 <sup>b</sup>	-0.217 <sup>b</sup>	-0.319 <sup>b</sup>	0.067 <sup>b</sup>	<b>0.813<sup>a</sup></b>

#### 4. Measurement Model

The unidimensionality of the scale, measuring each measurement model, was tested through Confirmatory Factor

Analysis (CFA) as recommended by Anderson and Gerbing (1988). The CFA (maximum likelihood estimation method) was conducted to measure the construct's reliability (CR) and validity (convergent and discriminant). The factors identified through the process of EFA were utilized in this analysis. All the constructs of the present model are considered reliable as CR is more than 0.70 (refer Table 3) as recommended by Nunnally and Bernstein (1994).

The convergent validity is assessed through Average Variance Extracted (AVE) as it shows the amount of variance that is captured by a construct in relation to the amount of variance due to measurement error. The AVE value for all the factors is more than 0.5, which is satisfactory as per the recommendations of Hair et al. (1987) (Table 3).

For examining the Discriminant Validity, the AVE values are compared with squared correlations between paired constructs, and all the AVE values are found comparatively more (Table 4). This indicates that all the constructs are statistically different as suggested by Hair et al. (1987). The overall fit indices support the acceptability of the measurement model with a Co-efficient of Discriminant Value (CMIN/DF) =1.883; the Goodness of Fit Index (GFI) = 0.937; Comparison Fit Index (CFI) = 0.971 and Root Mean Square Error of Approximation (RMSEA) = 0.044 as recommended by Hair et al. (1987); Tabachnick and Fidell (2019). Hence the seven-factor measurement scale of the host community's perception of tourism impact scale was established for the Puri region. The seven factors are STD, ECI, PSC, DMI, ITR, NSC, and ENV. Each of the seven factors is measured through multiple indicators (variables). (Objective 2 achieved).

**5. Framing Hypothesis**

The literature study indicated that the perceived impact factors (ECI, PSC, DMI, ITR, NSC, and ENV) are exogenous, and support for tourism (STD) is an endogenous factor. Based on the theoretical and empirical findings of the previous studies, six hypotheses are proposed to examine the relationship between the perceived tourism impacts (exogenous factor) and their influence on the host community's support for tourism development (endogenous factor) for the Puri region. The six hypotheses (H) are:

**H1:** There is a direct and positive relationship between *Economic Impacts* (ECI) and the host community's *Support for Tourism Development* (STD).

**H2:** There is a direct and positive relationship between *Positive Socio-Cultural Impact* (PSC) and the host community's *Support for Tourism Development* (STD).

**H3:** There is a direct and positive relationship between the *Development and Maintenance of Heritage and Infrastructure* (DMI) and the host community's *Support for Tourism Development* (STD).

**H4:** There is a direct and positive relationship between the *Image of the Region* (ITR) and the host community's *Support for Tourism Development* (STD).

**H5:** There is a direct and negative relationship between *Negative Socio-Cultural Impact* (NSC) and the host community's *Support for Tourism Development* (STD).

**H6:** There is a direct and negative relationship between *Environmental Issues* (ENV) and the host community's *Support for Tourism Development* (STD).

**6. Structural Model: Perceived Tourism Impacts and Support for Tourism Development**

After the identification of the host community's perceptions of tourism impacts, the influence of their support for tourism development was assessed. Gursoy and Rutherford (2004) confirmed a strong and direct relationship between the perceived tourism impacts and support for tourism development.

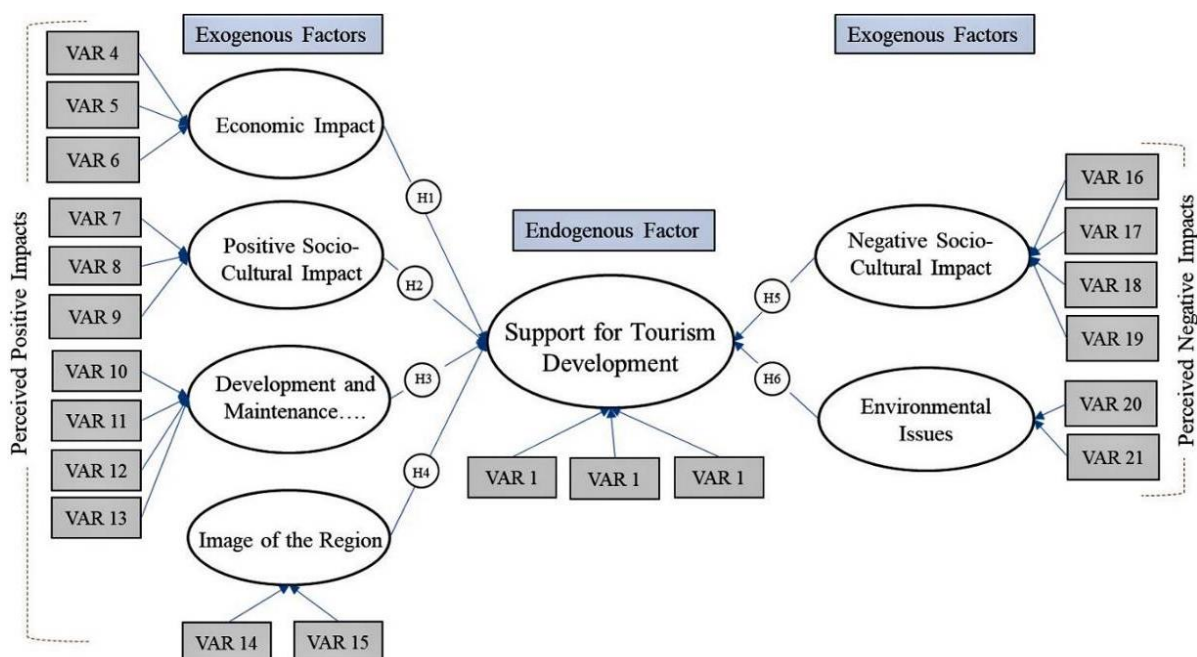


Figure 3. The Structural Model (Source: Author, 2022)

This is in agreement with the Social Exchange Theory (SET) that if the perceived positive impact is more than the perceived cost, then the host community will be involved in the exchange with the tourist and will support more tourism development (Adongo et al., 2019; Dyer et al., 2007; Eslami et al., 2019; Nunkoo, 2016; Sharma et al., 2008). Based on these discussions, a structural model was proposed (refer to Figure 3) to test the construct validity of the six-factor measurement scale for the Puri region, Odisha, India. The structural model examines the relationship between six exogenous factors (that are ECI, PSC, ITR, DMI, NSC, and ENV) and the endogenous factor (that is, STD).

The Structural Equation Model (SEM) relates one construct to the other constructs by providing a path co-efficient for each proposed hypothesis to determine their relative significance. The data fit of the proposed structural model indicates a good fit with  $CMIN/DF = 1.883$  (should not be more than 2 as suggested by Dion (2008)),  $CFI = 0.971$  (more than 0.95 indicates satisfactory fit as recommended by Dion (2008)),  $GFI = 0.937$  (value more than 0.9 indicates satisfactory fit as suggested by Malhotra and Dash (2019)),  $RMR = 0.041$  (value less than 0.05 indicates good fit as per Hooper et al. (2008)), and  $RMSEA = 0.044$  (less than 0.05 indicates good fit as per the recommendation of Dion (2008)). As all the value exceeds the cutoff criteria, hence the hypothesized model is acceptable.

The six hypothetical relationships of the structural model were found to be significant (as  $p < 0.05$ ) and in the proposed direction (Table 5) as shown in the Structural Model (Figure 3). Therefore, it can be concluded that all the hypotheses are accepted. The Standardize Path Estimate value for ECI & STD is 0.289 (at  $p = 0.00$ ), PSC & STD is 0.292 (at  $p = 0.00$ ), DMI & STD is 0.193 (at  $p = 0.00$ ) and ITR & STD is 0.181 (at  $p = 0.00$ ) which indicates that these factors significantly influence the STD in a positive manner. Whereas the Path Estimate value for NSC & STD is -0.230 (at  $p = 0.00$ ) and ECI & STD is -0.098 (at  $p = 0.04$ ) indicates a significant negative influence on the host community's perception towards their support for tourism development (STD) (refer Table 5). (Objective 3 achieved).

Table 5. Structural Equation Model (SEM) Analysis (Note: result significant at  $p < 0.05$ ) (Source: Author, 2022)

	Path Relationship	Standardize Path Estimate	p-value	Hypothesis
Hypothesis 1	ECI - STD	0.289	0.00	Accepted
Hypothesis 2	PSC - STD	0.292	0.00	Accepted
Hypothesis 3	DMI - STD	0.193	0.00	Accepted
Hypothesis 4	ITR - STD	0.181	0.00	Accepted
Hypothesis 5	NCS - STD	-0.230	0.00	Accepted
Hypothesis 6	ENV - STD	-0.098	0.04	Accepted

## DISCUSSION AND CONCLUSION

The study aimed to develop a host community's support model for tourism development in the Puri region, taking Social Exchange Theory as a theoretical base. It was carried out in three-fold. Firstly, a measurement scale was developed, specifically for the Puri region, by adopting a scale development process. Secondly, the reliability and validity of the scale were ensured. The measurement scale comprised seven factors: six perceived tourism impact factors (exogenous factors) that are *economic impact*; *positive socio-cultural impact*; *development and maintenance of heritage and infrastructure*; *image of the region*; *negative socio-cultural impact*; *environmental issues*, and one factor (endogenous factor) representing the host community's *support for tourism development*.

Thirdly, the relationship between these six impact factors and *support of tourism development* was assessed using Structural Equation Modeling. The findings confirm that all six perceived tourism impact factors significantly influence the support of the host community for tourism development in the proposed direction.

The findings of this study confirm that economic and non-economic factors play a significant role in shaping the attitude of host communities. Like several other previous studies (Dyer et al., 2007; Gursoy and Rutherford, 2004; López et al., 2018; Nunkoo and Ramkissoon, 2011; Raj Sharma et al., 2022), the present study also confirmed that the economic impact of tourism has a direct and positive influence on the attitude of the host community. Along with this, the significance of the socio-cultural impacts and environmental impacts is also supported in the findings (Table 4). The positive socio-cultural impacts have the power to influence the host communities' attitude positively, and vice versa. This is consistent with the findings of Gjerard (2005); Gursoy and Rutherford (2004); Papastathopoulos et al. (2020); Uslu et al. (2020).

Similarly, environmental issues can adversely influence host communities' support, as previously Andriotis (2005); Uslu et al. (2020) suggested in their study. The study assessed the physical factors, which are, the development and maintenance of new infrastructure and services; the maintenance and conservation of tangible and intangible heritage, and found it as a determinant factor influencing the host community's attitude (Table 4) significantly. This indicates that the host community's attitude towards tourism development is positively influenced if they perceive that the region's development is taking place due to tourism and the heritage (tangible or intangible) is maintained and conserved properly as they consider the heritage as part of their identity. The findings also confirmed the importance of the psychological factor, i.e., the image of the region, in shaping the attitude of the host community (Table 4).

The study's general findings mostly support the findings of previous studies from developed countries; however, considering the predictive power of the factors DMI and ITR, the study recommends the inclusion of these factors in the tourism support model for heritage destination of developing countries. The study also aimed to check the applicability of Social Exchange Theory (SET) in the heritage tourism destination of the Puri region. Several studies have confirmed the relevance of this theory, mainly in American, European, and Australian tourism destinations (Nunkoo, 2016; Sharma et al., 2008). The finding of this study confirms the robustness of the Social Exchange Theory for the heritage destinations of the South Asian region, specifically for India.

The main contribution of this study is the development of a community support model for tourism development for heritage destinations of India (Figure 3) by integrating all the significantly influencing determinants.

The findings of the study, however, contradicted the *Tourism Area Life Cycle* model of Butler (1980), which suggests that when the destination is in the development stage, the host community's involvement will decline, and there will be some antagonism among them. In contrast, the finding indicates that the host community supports tourism development. They are perceiving tourism's positive impacts more than the negative influence.

They are also willing to get more involved in the tourism sector. Hence it can be inferred that the host community's hostile behavior and decline in the participation rate are not observed in the *development stage*. Since ancient times, pilgrims and tourists with a religious bent have travelled to this location. The pilgrims are an enduring part of the religious community and contribute to the area's increased spirituality and religiosity. Spirituality and religiosity are positive indicators of someone's welfare (Villani et al., 2019). As pilgrimage is the most common type of tourism in the area, this may be the most psychologically plausible explanation for the favourable attitude of the host community toward tourism in Puri. Hence, the welcoming community's optimistic prospective. However, more investigation is required to determine which stage of the TALC model this type of attitude emerges within the host population in a heritage destination of a developing nation where pilgrimage is the predominant type of tourism.

The model and findings of this study can provide useful insights for the tourism planner, decision-makers, government authorities, etc., of the Puri region. By identifying the host community's perception that support or is likely to resist tourism development, planners and managers can address the concerns through strategically targeted community consultation. The model identifies constructs that represent community attitude towards tourism development in the context of the Puri region. The findings may serve as a basis for more comprehensive research in the future. The model can be generalised for the heritage destinations of Odisha but for the generalisation of the model for all heritage tourism destinations of India model needs to be further tested in other heritage regions across the country, as India is a vast country with a diverse socio-cultural condition.

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