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EXPLORING SUSTAINABILITY FACETS OF PRO-POOR TOURISM PROGRAMS IN INDIA

A. Vinodan

Central University of Tamil Nadu (India)

vinodan_tt@yahoo.co.in

S. Meera

Indian Institute of Tourism and Travel Management (India)

mirasmadhav@yahoo.com

J. Manalel

Cochin University of Science and Technology (India)

jamesmanalel@gmail.com

ABSTRACT

This paper intends to explore local-specific sustainability facets of pro-poor tourism initiated in India's Protected Area (PA). Mixed methodology, i.e., interview and structured questionnaire adopted for data collection and followed by the factor analysis for testing hypothesis. The result indicates that the sustainability facets of pro-poor tourism have five distinct facets: monetary, environmental, societal, cultural heritage, and governance. The study assumes significance in the pro-poor approach in tourism development for addressing various Sustainable Development Goals and in understating the ground-level reality of sustainability in the context of tourism-led development in developing countries. It also throws light on setting standards for approach-based tourism programs that cater to various segments of society and the environment.

KEYWORDS

Sustainability facets; Exploratory sequential method; Confirmatory factor analysis; Pro-poor tourism; India.

ECONLIT KEYS

Q01; Z32; I39

1. INTRODUCTION

The relationship between tourism, particularly pro-poor tourism and sustainability, has been paid considerable attention in recent years by tourism academics (Schumacher et al., 2018), even though empirical evidence of such nexus is considerably less in number (Gibbes et al., 2020). Pro-poor tourism has been construed as an approach to tourism development designed to address growing concerns over inclusive growth and sustainability. Pro-poor tourism (PPT) is defined as tourism that generates economic, social, cultural, and environmental benefits for the poor (IIED, 2001). Through local resource approbation, PPT aims to link the poor with tourism development to their upliftment.

A solid sustainable development foundation in tourism resource appropriation makes pro-poor tourism comparatively easy, ensuring optimal resource appropriation. Such inclusive tourism development is possible only if it is open to poor people by expanding business and employment opportunities and ensuring the proliferation of benefits among all, including the unreached. To understand the progress of such tourism approaches, developing a mechanism at the grassroots level is necessary. The sustainability of the pro-poor programs is decided on the reach and intervention of poor people, including opportunities for decision-making. Therefore, a holistic mechanism at the local level is essential to understand the progress of such developmental initiatives among the poor.

Globally, UNWTO (2004) promotes indicator-based sustainability measurement in tourism and encourages stakeholders to measure structural changes in external as well as internal factors and impacts caused. Indicator-based measurement is considered inevitable to understand the success or failure of sustainability in tourism (Ng, Chia, Ho, & Ramachandran, 2017). Indicators also check stakeholder sustainability practices (Kulkajonplun, Angkasithb & Rithmanee, 2016). In practice, an indicator is a sign, index, or signal that visualizes a scenario or system. Such an indicator is also essential for pro-

poor tourism planning and management and, subsequently, measuring its sustainability status (Grimes, Bouchair & Tebbouche, 2017). Accordingly, indicators become a prerequisite for developing sustainable tourism destinations (Bhuiyan, Siwar, & Ismail, 2016); specially to examine the extent of sustainability practices, which in turn support livelihood opportunities (Kristjánsdóttir, Ólafsdóttir & Ragnarsdóttir, 2018) and improvement of destinations (Gallucci & Dimitrova, 2020). As it is essential to understand sustainability practices and their facets, a measurement-based strategy is found inevitable. This approach is vital in the sustainable development arena to meet the sustainable development goals (SDGs) (UNWTO, 2018), as SDGs focus on poverty reduction, zero hunger, health, well-being, gender equality, and reduced poverty inequality through tourism.

1.1) RESEARCH GAP AND SIGNIFICANCE OF THE STUDY

Pro-poor tourism is considered one of the emerging approaches of tourism that meet the livelihood needs of poor people, especially those living in and around Protected Areas (PAs). Owing to their spatial position, other development opportunities for such community groups worldwide are limited. Moreover, PAs are the habitat of a large number of poor and marginalized sections of society, and the development approach of PAs can contribute to the region's development (Michael, 2010). Tourism is one of the viable options for such communities to meet their development needs; that has to be explored based on socioeconomic and other local considerations. There is a need to understand the tourism development opportunities of communities living in and around PA without compromising their local and developmental concerns. To address this gap, the scientific approach would be to understand the sustainability facets of the tourism development option available to these community groups.

However, understanding sustainability facets of tourism developed with pro-poor approaches, particularly in Protected Areas (PA), is a major challenge encountered in the theoretical and empirical scenario, as sustainability is always destination specific. Hence, there is a need to explore local-specific sustainability indicators for understanding the different facets of sustainability of pro-poor tourism based at PA destinations. The

inadequate literature on general pro-poor tourism measurement and PA-based destinations demands policymakers and practitioners to adopt indicators from other sustainable tourism practices. In this direction, the present study explores the sustainability facets of pro-poor tourism programs in India to understand the level of development contribution of pro-poor tourism, aiming not only at the traditional philosophy of livelihood but also to ensure a better market presence for their endemic products.

2. REVIEW OF LITERATURE

The application of sustainability in tourism development has been debated in a different context. The discussion on the conceptual difference between sustainability, sustainable tourism, and sustainable development has been widely acknowledged in various tourism-related domains (Liu, 2003). Attempts have also been made to strengthen sustainability in tourism development, particularly in destination development (Butler, 1999; Vinodan, Meera, & Manalel, 2017). Under destination sustainability, community-based sustainability discussions gained momentum over the years (Saarinen, 2006).

According to Pérez et al. (2017), sustainability in destination management is a recent addition, particularly in nature-based tourism destinations; their study pointed out that adhering to sustainability principles and improving sustainability is an essential element of destination management in pro-poor tourism destinations. Similarly, Huang and Coelho (2017) examined the appropriateness of indicators in sustainability evaluation. They observed that studies on sustainability and its evaluation gain much more relevance in nature-based destination management and stated that destination-specific relative sustainability is found more appropriate to understand the impact of tourism. The study identified ten appropriate indicators to examine economic, social, and environmental including wildlife aspects of sustainability, to understand the relative performance of sustainability.

Large numbers of studies discuss the importance of indicator-based destination sustainability evaluation. Buckley (2012) and Gibson, Hassan and Tansey (2013) show that sustainable tourism indicators can be considered a tool for implementing and

measuring sustainability at destinations. Parkins, Stedman and Varghese (2001) also stated that using local-specific indicators could measure facets of sustainability.

Torres-Delgado and Saarinen (2013) studied the application of indicator-based sustainability measurement and argued for local-specific variables for destination planning and management. Their study clarified that set or index indicators are helpful in destination planning where the set is valid for one particular destination. In contrast, the index is appropriate for comparing two or more destinations. Kristjánisdóttir, Ólafsdóttir and Ragnarsdóttir (2018) further reinforced this approach and emphasized that local specific indicators are suitable for understanding the level of sustainability achievements and their facets.

Regarding indicator formulation for PA-based tourism, UNEP and UNWTO (2005) often suggest developing local sustainability indicators through consultation and participation. Similarly, other studies also argued for the appropriateness of local-specific indicators for exploring sustainability. As Tsaur, Lin and Lin (2006) argued, subjective indicators are appropriate to explore development outcomes in destinations adopting a pro-poor approach. However, Young (2008) contended criteria and objective indicators for measuring facets of PA-based tourism sustainability through expert evaluation.

While examining the community aspiration as a development indicator of pro-poor tourism, Buckley (2012) stated that tourism development should give equal importance to community utility, environmental protection, and social development besides the speed, scale, and monetary contribution of tourism in general. Interlinkage of these aspects of tourism development is popularly referred to as a triple bottom approach, also considered the three critical pillars of sustainability until recently. Similarly, Wise (2017) raised the importance of community utility and argued that there should be a mechanism to measure community development along with the monetary contribution of tourism development. For the holistic assessment of the sustainability of community-based tourism, Choi and Sirakaya (2006) developed 125 sustainability indicators for community-based tourism (CBT) at different levels. The exploration of the political and technological facets of sustainability was one of the major highlights of this study, as these facets were new in the domain of sustainability discourse.

Understanding indicator-based sustainability in detail, the study further examined various studies focusing on various facets of sustainability discussed in the context of other tourism approaches and programs. In this direction, the economic sustainability of tourism is defined as the stability of economic growth and maintenance of benefits generated through tourism activities (UNWTO, 2006). Furthermore, local stewardship, opportunities for employment, and income are the major economic indicators of ecotourism/community-based tourism (CBT) sustainability (Wijaya, 2010). In contrast, the ability to increase the quality of local communities' livelihood through attractions and other recreational opportunities is considered an economic indicator of ecotourism/CBT in PAs (Eshliki & Kabousi, 2012; Dolnicar, Yanamandram & Cliff, 2012; Gibbes et al., 2020).

According to Hák, Janoušková and Moldan (2016), environmental sustainability involves maintaining natural capital over a specific time frame. Environmental sustainability consists of maintaining natural capital basis on output and input rules. (Lee & Hsieh, 2016). As Cater (1994) stated, tourism may enhance the integrity of the host communities by improving the people's welfare and pride, leading to the promotion of culture. Measuring cultural-heritage facets of sustainability is difficult as it is subjective (Throsby, 2001). According to Lozano-Oyola, Blancas, González and Caballero (2012), understanding various facets of cultural-heritage sustainability helps to develop appreciation and pride among local communities.

As mentioned above, various facets of sustainability have been emphasized in studies except for political/community governance facets of sustainability. According to Hall (1994), tourism's political sustainability facets have not gained as much attention as it deserves. Baring few references on governance facets of sustainability in general (Choi & Sirakaya, 2006), there is hardly any academic and experimental intervention to measure in the context of pro-poor tourism. Although Ocampo, Ebisa, Ombe and Escoto (2018) stated that local sustainability indicators (LSI) are useful for decision-making while appropriating resources; they also provide local-specific inputs to the government for resource allocation and policy-making decisions intending conservation and community welfare for inclusive growth.

As most of the study is confined to indicator development for tourism in general or CBT, an empirical investigation is essential to explore PPT's progression. Poor understanding of

local specific sustainability facets of PPT makes policy decisions more difficult. Therefore, the basic premise of livelihood possibilities makes PPT impossible for underdeveloped areas of developing countries. The present study attempts to explore the facets of relative destination sustainability through the local-specific indicators in the context of PA-based PPT destinations in India.

3. METHODOLOGY

3.1) OBJECTIVES

In the stated context, the study objective is to understand local specific sustainability facets (LSF) of Protected Area (PA) based pro-poor tourism destinations and their latent dimensions and present the following specific objectives for investigation:

*Identify various local sustainability indicators (LSIs) of tourism strategies of pro-poor tourism programs in India.

*Explore the facets of destination sustainability of pro-poor tourism programs in India.

3.2) RESEARCH QUESTIONS

What are the various local-specific sustainability indicators of pro-poor tourism in India?
Are there any specific facets for the perceived sustainability of pro-poor tourism in India?

3.3) HYPOTHESIS

The local specific sustainability of pro-poor tourism in India is not multi-faceted.

4. STUDY AREA

As the study proposed an empirical investigation, four Protected Area (PA) based destinations (Fig. 1) in Southern India were identified. As indicated in Table 1, these four PAs, i.e., Thenmala, Periyar, Parambikulam and Wayanad, have ecotourism activities through

community support. Local community members are involved in ecotourism and related activities in these PAs. The entire population of these PAs belongs to the below poverty line (BPL) category criteria of both the union government and the state government. As indicated in table 1, the majority of the population consists of indigenous/tribal communities, and very few at Parambikulam are displaced communities due to hydroelectric projects.

Study Area	The area in Sq. Km	Year of Declaration as a wildlife	Community profile (85% are Scheduled Tribes)	Community intervention framework	Community Members in tourism
Parambikulam (Tiger Reserve)	265	1973	Kadar, Malasar, Mduvar, Malamalasar	EDC*	503
Periyar (Tiger Reserve)	777	1934	Mannan, Paliya, Urali, Malaaraya, Malampandaram	EDC	540
Thenmala (Shenduruny Wildlife Sanctuary)	172	1984	Kanikkar, Malayarayar Malaipandaram, Malavedan Ulladan	EDC	175
Wayanad (Wildlife Sanctuary)	344	1973	Paniyas, Adiyas, Kattunayakan, Kurichiyans, UraliKurubas, Mulla Kurubas, Jen Kurubas.	EDC	125

*EDC: Eco-development Committee.

Table 1: Profile of the Study Area.

Source: Primary data.

5. EXPLORATORY SEQUENTIAL APPROACH

In the exploratory sequential method, according to (Creswell, Plano Clark, Gutmann & Hanson, 2003), the results of the qualitative stage are used for developing the measurement instrument for the quantitative stage. This method is generally adopted when the research aims to identify unknown and dynamic factors wherein the dimensional orientation is yet to be explored. The exploratory sequential approach is therefore adopted in this present study. Furthermore, the qualitative stage of the present study adopted an In-depth interview, and the quantitative analysis is a questionnaire-based survey.

5.1) IN-DEPTH INTERVIEW

An in-depth Interview was initiated with officials of the Department of Forest and Wildlife (DFW) vis-à-vis academic experts to explore multiple indicators of local specific sustainability. A total of 25 officials not below the rank of range officer and eight academic experts were consulted.

Interview criteria: Eight experts from Parambikulam Tiger Reserve, seven officials of the Office of the Thenmala Ecotourism project, and Shenduruny Wildlife Sanctuary, including senior forest guards, were also interviewed. Similarly, five officials of Periyar Tiger Reserve, consisting of one Tribal and Eco-development Officer and three staff members of the Office of the Tribal and Eco-development, were interviewed for the study. Five staff members of the Office of the Wayanad Wildlife Sanctuary consisting of an Assistant Wildlife Warden, Range officer, Superintendent, and two staff members, were also interviewed for the study.

Interview Process: A pre-test and pilot session with Parambikulam Tiger Reserve range officers was initiated before the final interview and was found consistent. Final interview questions were presented in the following order: all questions have equal importance. Besides these, the following general questions were also asked to get a holistic idea of the topic of study. These are; Do you think tourism helps the region's development? How? How will you measure the progress or development of this region owing to tourism? Can you suggest some of the development parameters you can notice here? What are the different measures you are taking for the region's sustainable development? Could you suggest a few steps to examine the progress or development of the area? Subsequently, an explicit coding frame was used, and the specific terms about sustainability were elicited, and all were assigned a unique identification number. Consequently, the independent-coder method was adopted to test intercoder reliability and consistency (Gordon, 1992). This was followed by concurrent refining to develop various constructs in the study.

Interview Results: A comprehensive list of 31 indicators produced based on expert interviews and a literature review on local-specific sustainability follows a pro-poor approach. Subsequent consultation with officials of DFW and ecotourism academic

experts (eight experts were consulted in person/mail) from educational institutions finalized 27 variables with the following changes: They have identified four indicators irrelevant in the present context. These are (a) facilitating thrift and savings among community members, as this may arise after the primary benefit of employment., (b) means to meet seasonality of tourism destination, and (c) Provision for reducing migration as it is the result of the availability of employment, and (d) Mechanism for ensuring transparency in destination transactions is a comprehensive term attributed to diverse activities of the destinations. Finally, 27 indicators were identified and retained for further analysis.

5.2) RESULTS OF THE QUALITATIVE STUDY

Based on the literature review and the experts' recommendations, 27 variables explaining local-specific sustainability are presented in Table 2.

Monetary	<i>Self-employment:</i> Provision for tourism-related self-employment for the local community.	<i>Women in economic activity:</i> Provision for Women's participation in monetary activities.	<i>Income leakages:</i> Provision for reducing income leakages.	<i>Paid employment:</i> Provision for tourism-related waged/salaried employment for the local community.
	<i>Local ownership:</i> Provision for opportunities for local ownership of enterprises.	<i>Linkages:</i> Provision for linkage with other sectors like farming, general business.	<i>Employment leakages:</i> Provision for reducing employment leakages.	<i>Bargaining:</i> Provision for bargaining for the community benefit.
Societal	<i>Social infrastructure:</i> Provision for improving social infrastructure, i.e., reducing crime, accident of vandalism, and other anti-social elements.	<i>Skill development:</i> Provision for improving skill level among members to host tourism services.	<i>Social security:</i> Provision for improving social security measures, i.e., education, health services to local communities.	<i>Utility infrastructure:</i> Mechanism for creation of public utility infrastructure like sanitation, health to local communities.
Cultural-heritage	<i>Conservation:</i> Developing various measures for the conservation of various traditional	<i>Presentation:</i> Opportunities for presenting art forms for visitors.	<i>Maintenance:</i> Measure for cultural-heritage site maintenance.	<i>Economic values:</i> Measure for creating awareness among communities about

	activities of local communities.			the monetary values of cultural-heritage properties of the destination.
Environmental	<i>Financial contribution:</i> Mechanism for financial contribution by the community for conservations.	<i>Environmental reporting:</i> Mechanism for community participation in environmental reporting.	<i>Education and awareness:</i> Provision for environmental education and awareness among the community.	<i>Low impact measures:</i> Provision for low impact measures like low-impact technologies, eco-friendly construction, etc.
	<i>Conservation:</i> Provision for natural resource conservation, i.e., soil, forest cover, etc.			
Governance	<i>Women in Decision making:</i> Provision for the participation of women in decision making.	<i>Advocacy:</i> Measure to improve the advisory role of communities in planning destination activities.	<i>Downward shift:</i> Mechanism for the downward shift in decision making.	<i>Democratic representation:</i> Provision for democratic representation of eligible communities, i.e., marginalized sections like tribals.
	<i>Liasoning:</i> Provision for liasoning with local/regional governing institutions.	<i>Discrimination:</i> There must have provisions for reducing discrimination in sharing tourism benefits among community members.		

Table 2: Local-specific sustainability variables and explanations.
Source: Primary data, Author compiled.

Reliability and Validity of sustainability variables: The reliability and validity assessment were done based on Trochim's (2006) criteria. Criteria are credibility, transferability, dependability, conformability, established based on criteria and informal conversations, replicability in similar or identical tourism cases, i.e., in this context, it refers to PA-based tourism destinations, and methodological consistency, respectively. Conformability is ascertained as all respondents are from similar settings. Credibility and transferability correspond to the internal and external validity of the quantitative research. Credibility is also considered one of the most important factors in establishing trustworthiness (Lincoln & Guba, 1985).

5.3) DESCRIPTIVE STAGE

According to Ethridge (2004), descriptive research involves analyzing issues and problems through data collection. In the present study, the results of an exploratory study on the subject matter were considered the basis of the descriptive research. For better generalizability, the survey method is considered an appropriate tool (Jick, 1983); hence, the survey method is used in the descriptive stage.

Scale development: Churchill's (1979) guidelines took as a basis for scale development (5-point Likert agreement scale), and the C-OAR-SE procedure (Rossiter 2002) was adopted for content validity assessment. Based on the advice of experts of DFW, the short and simplified questionnaire was prepared, which consisted of pre-tested items.

Sampling Design: In this study, four destinations of southern India, i.e., Thenmala, Periyar, Parambikulam, and Wayanad of Kerala state, were considered for sampling. As in the case of qualitative study, these selections were also made based on purposive sampling.

Sampling Technique: As the samples are more identical, based on the following criteria, convenience sampling was used to select the sample units:

- *All respondents have membership in tourism committees
- *Respondents should not hold the post of president/vice president at present or past
- *All respondents have experience in involving pro-poor tourism activities

Since the samples are identical, convenience sampling is ideal for data collection. Further, it is convenient and economical to select samples of local community members who are approachable and reachable to get feedback on the subject matter. Moreover, convenience sampling is the only feasible way to proceed while learning about groups whose spatial representation is wider. The selection of the respondents at the time of the visit was purely by chance.

Data Collection: The purpose of the study was explained first, and structured questionnaires were distributed to respondents. For a better response rate, a direct face-to-face survey methodology was adopted. A total of 328 samples were collected, and

after verification, 300 responses were used for analysis. Sample size and data quality assessment were decided on Yong and Pearce's (2013) criteria.

*Identification of missing values: 28 missing responses were identified based on the frequency test and removed, and 300 usable responses were finalized

*Identification of Outliers: The AMOS output (squared Mahalanobis distance-D2) showed no significant extreme score, i.e., multivariate outliers in the data set.

*Analysis of normality: Maximum likelihood estimation with Bollen-Stine bootstrap (with 1000 samples) was used to correct the non-normality of the data and found normal.

*Verification of multicollinearity and singularity: Since squared multiple correlations of variables in the dataset fall between 0.456 and 0.763, there is no singularity (i.e., SMC close to 0) and multicollinearity (SMC close to 1.0) issues.

6. ANALYSIS

In the qualitative study, 27 indicators were identified based on expert advice and literature for explaining local-specific sustainability variables.

6.1) RESULTS OF THE DESCRIPTIVE STUDY

Profile of the community: As indicated in table 3, the study results show that the average monthly income per person from tourism came to \$90. The amount is almost equal to the average national minimum wage for unskilled workers in India. The average number of family members was found to be six. It was found that 15% of members fall below 30, 35% fall within the 30-40 age group, 40% lie within 40-60 years, and 10% are 60 years and above. Gender-wise representation of community members shows that 72.4% involved in tourism and related operations were males. Education qualification indicates that 22% of them had studied up to 8th standard, the majority are, i.e., 70% falls between 8th to 12th standard, and only eight percent had done either graduation or diploma. The number of family members engaged in tourism activities was two, with approximately six years of experience in tourism.

Variables		Status in average / percentages
Income		\$90 (average)
Number of family members		06 (average)
Age of the respondents	Below 30	15%
	30-40	35%
	40-60	40%
	Above 60	10%
Gender composition in tourism	Male	72.4%
	Female	27.6%
Education level	Below 8 th standard	22%
	8 th to 12 th standard	70%
	Graduates/Diploma	08%
Members of tourism from a family		02 (average)
Experience in tourism		06 Years (average)

Table 3. Community profile.
Source: Primary data, Author compiled.

6.2) EXPLORATORY FACTOR ANALYSIS

Exploratory factor analysis (EFA) was conducted to identify the underlying factors (Hair, Black, Babin, Anderson & Tatham, 2006) and to understand the conformity of the factors extracted with identified facets. EFA with Varimax rotation was performed to identify factors (Hair et al., 2006). items loading more than 0.5 (Tabachnick & Fidell 2007) are retained for subsequent analysis.

The EFA can generate five underlying constructs, viz., Monetary facets (MOF), Environmental facets (ENF), Societal facets (SOF), Cultural-heritage facets (CHF), and Governance facets (GOF) from the LSI. The variance explained 63.03% with an Eigenvalue greater than one and assumed that the model represents the data. No cross-loading between items was found in the analysis. The sampling adequacy based on the KMO measure was 0.863. Other measures like the Bartlett Test of Sphericity (at $p < 0.001$) and Chi-Square value (of 3669.3 with 325 degrees of freedom) were also significant. Item communalities varied from 0.611 for the N22 item to 0.882 for N15. One item (N6 with the

loading of 0.411), Item Linkage with other sectors, was removed from the further analysis owing to poor loading.

Variable	Coding	Indicator	Factor Loadings	Cronbach Alpha	Cumulative variance (%)
1.	N1	Self-employment	.834	0.779	14.142
2.	N2	Paid employment	.663		
3.	N3	Women in economic activity	.825		
4.	N4	Income leakages	.632		
5.	N5	Local ownership	.731		
6.	N6	Linkage with other sectors	Removed		
7.	N7	Employment leakages	.823		
8.	N22	Democratic representation	.611	0.845	27.800
9.	N23	Liasoning	.679		
10.	N24	Women in decision making	.788		
11.	N25	Advisory role	.743		
12.	N26	Downward shift	.769		
13.	N27	Discrimination	.728		
14.	N17	Natural resource conservation	.736	0.844	40.251
15.	N18	Financial contribution to conservations	.765		
16.	N19	Environmental reporting	.788		
17.	N20	Education and awareness	.754		
18.	N21	Low impact measures	.738		
19.	N8	Social security	.700	0.842	52.352
20.	N9	Bargaining power	.825		
21.	N10	Public utility infrastructure	.759		
22.	N11	Social infrastructure	.786		
23.	N12	Improving skill level	.724		
24.	N13	Conservation of traditional activities	.723	0.849	63.032
25.	N14	Opportunities for art presentation	.605		
26.	N15	Cultural-heritage site maintenance	.882		
27.	N16	Monetary values of culture	.846		

Table 4: Factor loadings of LSI (Rotated).
Source: Primary data, Author compiled.

Table 4 shows the loadings of the measured item on latent factors explored, such as MOF, ENF, SOF, CHF, and GOF. Since the items are loaded significantly against the construct without cross-loading, it can be stated that the construct and measured items meet the convergent and divergent reliability criteria.

EFA result indicates no substantial diversion from the existing hypothesized facets of local-specific sustainability. Even then, one indicator variable, 'Bargaining power of the community moved towards SOF now (earlier bargaining was part of MOF). Since the mandate of destination sustainability is to ensure a collective benefit to the community in the context of PA-based tourism, this movement can be justified. Further, such benefit is

often possible through collective bargaining, which indicates better social cohesion among identical groups. Accordingly, all identified five latent factors (MOF, ENF, SOF, CHF, and GOF) of local-specific sustainability were retained. Henceforth, these constructs will be referred to as latent constructs for further discussion.

6.3) CONFIRMATORY FACTOR ANALYSIS

Confirmatory Factor Analysis (CFA) estimates each parameter of the measurement model. CFA was performed using AMOS. As shown in Figure 2, the statistical significance of the relationships among various factors and their extracted facets such as MOF, ENF, SOF, CHF, and GOF were taken together and was found to be a valid fitting model as the fit indices are within limits also the critical ratio was above 1.96 and standard residual covariance less than the threshold limit of 2.58 (Byrne, 2010). According to Kline (2016), a minimum set of fit statistics, one model test statistic, and three approximate fit indexes are to be reported to assess model fit. All values related to the said fit statistics fall within the permissible limit (CMIN/DF-1.921; RMSEA-0.055; GFI-0.911; NFI-0.901; CFI-0.923; AGFI-0.879).

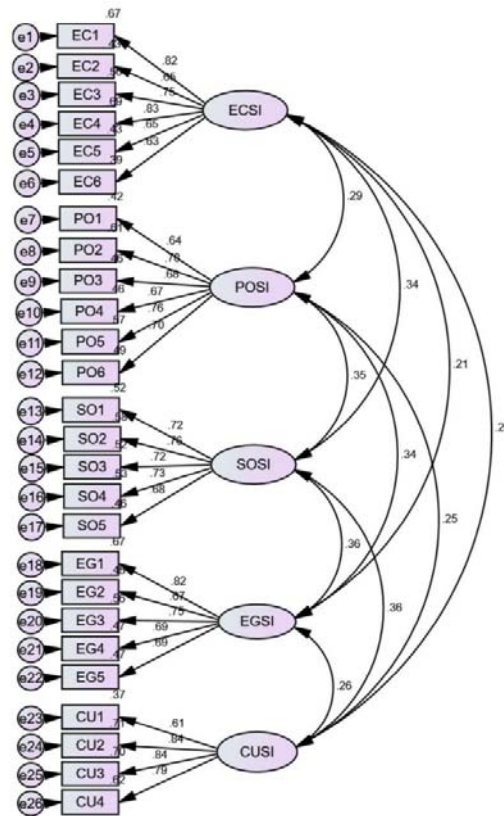


Figure 2. CFA model of facets of local specific sustainability. Source: own elaboration.

CFA results indicate that all those identified 26 indicators were retained with five constructs developed to identify sustainability facets of pro-poor tourism. The constructs and their respective variables with reliability coefficients are presented in Table 5 coefficient.

Constructs	Name of the variables	No. of variables	Cronbach's Alpha
MOF	Self-employment, Paid employment, Women in economic activity, Income leakages, Local ownership, and Employment leakages.	6	0.870
ENF	Natural resource conservation, Financial contribution for conservations, Environmental reporting, Environmental education and awareness, and Low impact measures.	5	0.844
SOF	Social security, Bargaining power, Public utility infrastructure, Social infrastructure, and Improving skill level.	5	0.853
CHF	Conservation, Presentation, Cultural-heritage site maintenance, and Monetary values of the culture.	4	0.849
GOF	Democratic representation, Liasoning, Women in decision-making, Advisory role, Downward shift, and Discrimination.	6	0.845

Table 5: Variables after CFA.
Source: Primary data, Author compiled.

6.4) VALIDATION

Common methods variance (CMV): The first factor accounted for 14.142% of the variance, and no single factor emerged from the unrotated factor solution (Podsakoff & Organ, 1986), and all factors together accounted for 63.032% of the total variance explained and hence there is no CMV.

Convergent validity: According to Anderson and Gerbing (1988), the statistical significance of convergent Validity is Cronbach's alpha estimate, variance with critical ratios, and squared multiple correlations (SMC). The critical ratio of items was above the threshold value of 1.96, and the SMC of indicators was found between 0.49 to 0.71; hence, convergent Validity is satisfied. Further, the result indicates that the standardized regression weight is more than 0.6 (Hair, Black, Babin, Anderson & Tatham, 2006).

Discriminant validity: As Anderson and Gerbing (1988) directed, all correlations among constructs fall within 0.85. The result shows that the average variance extracted (AVE) is a higher value than SIC in the study; hence the discriminant validity of the measurement is established.

Nomological validity: Covariance among the constructs of the present study was found to be positive and significant (Carmines & Zeller, 1979), thus confirming nomological validity. Based on these observations, it can be confirmed that the scale developed for exploring local specific sustainability facets of PA-based pro-poor tourism strategies at various destinations of India has good psychometric soundness.

7. DISCUSSION

Local-specific sustainability indicators (LSI) are considered an appropriate tool that is operationally effective in measuring facets of sustainability. In this direction, the present study developed LSI for measuring the level of development contribution of tourism aiming at conservation, the livelihood of the host community, and consumer satisfaction. The study has identified 26 variables with five distinct facets through the exploratory

sequential method. The study's descriptive analysis helped identify and confirm underlying facets of sustainability of pro-poor tourism through factor analysis. Hence, the study demonstrates that perceived local-specific sustainability for pro-poor tourism in India is multi-faceted; that includes monetary, environmental, societal, cultural-heritage and governance. As mentioned earlier, empirical studies about local-specific sustainability hardly exist in the domain of PA-based pro-poor tourism strategies. This situation is more evident in developing countries, particularly in Asian countries. A present study is a pragmatic approach toward indicator identification and understanding tourism sustainability. The study explored 26 variables with five distinct facets, which goes beyond the measurement strategy of Jitpakdee and Thapa (2012), which explains only nine sustainability indicators for tourism. The following sections discuss various facets of local specific destination sustainability derived from the study.

7.1) MONETARY FACET

The monetary facet is one of the essential facets of sustainability as it is construed as a direct measure of development initiatives. The pro-poor tourism approach is considered an appropriate development strategy among marginalized sections like tribal and vulnerable groups in society to improve the local economic conditions of such sections while protecting their natural and cultural endowments. As a development strategy, pro-poor tourism has a dual advantage of benefiting the local economy while preserving the local, natural, and cultural capital (Manwa & Manwa, 2014; Musavengane, 2018); it seeks to contribute to the community's well-being both directly as well as indirectly. The study result encompasses six areas of monetary facets of sustainability of pro-poor tourism. These are; self-employment, paid employment, women in economic activity, income leakages, local ownership, and employment leakages.

As far as employment is concerned, self and paid employment are generally identified across tourism destinations. This observation is in line with Vinodan and Manalel (2011) and Blancas et al. (2016) that the most important local economic benefit of tourism is the increased employment and income-generating opportunities, and this should be one of the indicators for local sustainability of pro-poor tourism (Cernat & Gourdon (2007).

Women in economic activities of tourism are in tune with the mandate of UNWTO (2007) and Blancas et al. (2016) and found more relevant in developing countries where gender participation in resource appropriation is comparatively low. Both employment and income leakages are considered major problems of developmental activities in underdeveloped areas worldwide. This scenario indicates that the locally generated income is subject to repatriation to far-off regions. Investigating alternative means to minimize leakages is important for ensuring the monetary facets of sustainability (Agyeiwaah, McKercher & Suntikul, 2017; Meera & Vinodan, 2019). The study further confirmed the existence of locally initiated enterprises as an inevitable indicator of the monetary facet of sustainability (Asadi & Kohan, 2011).

7.2) ENVIRONMENTAL FACET

Besides monetary benefits, conservation and management of ecological resources of their area is also the prime responsibility of pro-poor tourism as this is essential for the long-term encashment of endowment in tourism (Tao, 2018). In this direction, the study identified five indicators for meeting the environmental sustainability of PA-based pro-poor tourism. These are; natural resource conservation, a financial contribution for conservations, environmental reporting, environmental education and awareness, and low-impact measures. According to Agyeiwaah, McKercher and Suntikul (2017), tourism strives to meet the conservation of natural resources by engaging multidimensional measures like introducing pollution control techniques, land management, drainage management, and direct intervention such as forest watchers or conservators, etc. Similarly, Environmental reporting is a major community-based environment management program mostly practiced in pro-poor tourism. Studies by Brandon (1996), Agyeiwaah, McKercher and Suntikul (2017) have examined the possibility of educating local communities on environmental education to enhance tourism destination quality. As far as a financial contribution to natural resource conservation is concerned, the study confirms the arguments of Lindberg (2001) that conservation-oriented tourism activities can be sustained if the beneficiaries of tourism support or contribute to conservation.

Further, according to Aylward and Freeman (1992), the revenue from tourism ought to accrue to local communities, which shall be an economic incentive for investment in various conservation activities. Financial contribution, through direct financing or reinvestment of tourism revenues, is considered an indicator of environmental sustainability. As Fennell (2003) pointed out, low-impact measures are incorporated into tourism practices to bring tourism under the eco-label. Accordingly, the present study also confirmed the importance of adopting low-impact technology for tourism destinations.

7.3) SOCIETAL FACET

The societal facet of sustainability in the context of pro-poor tourism involves resource management, with due consideration for community-specific needs and practices. Thus, pro-poor tourism is capable of meeting local needs along with participative management, thus making it socially sustainable (Hunt., Durham., Driscoll & Honey, 2014). The contextually generated societal facet of sustainability measures related to community-based tourism (CBT) is social security, bargaining power, public utility infrastructure, social infrastructure, and skill improvement. The study identifies social security measures meant for community members, like educational provisions, health services, pension provisions, old-age services, and so on, by generating income from tourism and related services. Such measures are essential for community members who mainly depend on tourism for their livelihood. According to Brandon (1993), tourism is a means of community empowerment as it increases the bargaining power, especially of the local community. The contextual investigation also ratifies the fact that collective bargaining strengthens community-led development. Public utility infrastructure development in tourism is also considered important in several studies. Lindberg (2001) and Brandon (1993) argued that tourism helped improve the destinations' public utility infrastructure, particularly regarding health and hygiene. Provision for improving social infrastructure, i.e., reducing crime, the incidence of vandalism, and other anti-social elements (Lindberg, 2001), is also considered an indicator to measure the societal facet of sustainability of tourism destinations.

7.4) CULTURAL-HERITAGE FACETS

Tourism is responsible for ensuring the sustainability of cultural-heritage facets of pro-poor tourism at destinations (Barry, 2012). In this direction, the study identified conservation, presentation, cultural site maintenance, and culture's economic values as indicators of sustainability's cultural-heritage facets. Presentation and reintroduction of cultural properties are essential elements of tourism operation. As Apelian (2013) has pointed out, tourism is culturally sensitive, thereby culturally restorative, leading to increased indigenous knowledge retention and reintroduction. As far as cultural site maintenance is concerned, as a stockholder of destination resources, the role of the community became imperative in destination management.

Similarly, the economic value of cultural properties generated as an indicator for cultural-heritage facets of sustainability ratifies the observation of Fuller, Bultjens and Cummings (2005). They further argued for the economic value orientation to cultural properties like costumes, architecture, arts, festivals, and other community engagements for enhanced livelihood opportunities. In this direction, the study considers that understanding and appropriating the economic value of cultural properties could be an indicator of pro-poor tourism.

7.5) GOVERNANCE FACET

According to Becker, Jahn and Stieß (1999), the community governance aspect of sustainability is the ability to renegotiate sustainable community-based tourism goals and a governance mechanism assuring sustainability even at the grass-root level. Sustainability in Tourism is possible only if decision-making power is bestowed on local communities. (Gascón, 2015). The present study identified six indicators about the governance facet of sustainability in pro-poor tourism consisting of democratic representation, liasoning with stakeholders, women in decision making, advisory role, downward shift, and discrimination. Honey (2008) and Simpson (2008) consider the democratic representation in pro-poor tourism as an indicator of sustainability. Liasoning with other departments and organizations, directly and indirectly, related to destinations is

imperative for fostering sustainability in resource appropriation. Blancas et al. (2016) also observed that such a mediatory role of community becomes inevitable for destination sustainability. UNWTO (2007) and Barry (2012) further observed that the role of women in decision-making could bring more sustainable practices. Accordingly, such intervention can be considered a variable of local specific sustainability of pro-poor tourism as CBT provides revenue and better bargaining power. As Kiss (2004) argued, this study's result also calls for a consultative or advisory role beyond the generally observed community-level revenue-sharing paradigm in tourism destinations. Implementation of core values of PPT may pave the way for a downward shift in the decision-making process by empowering the grass-root level communities: In practice, locally initiated planning and management is often construed as a critical factor of pro-poor tourism success (Ross & Wall, 1999). The study investigated the benefit-sharing mechanism for destination sustainability and found that creating a non-discriminatory environment in benefit sharing could bring more sustainable behavior in resource appropriation. Similarly, cater (1994), and Blancas et al. (2016) stated that the opportunities for earning income, entitlement-based appropriation, and enhanced social security measures among community members are significant indicators of sustainability concerning PPT.

In the backdrop of Henry and Jackson (1996), which argues that insufficient attention has been paid to sustainability, the present study indicates that the sustainability of pro-poor tourism also has a governance facet. Accordingly, the study supplements the observation of Hall (1994) that sustainable development is a political concept. Therefore, achieving sustainable tourism goals requires a community governance approach to strengthen society's political system and power distribution.

Moreover, the study refutes the observations of Weaver (2006) and Tsaur, Lin and Lin (2006), which argue that measuring sustainability precisely is very difficult. Though there are different degrees and levels of sustainability, the present study dispels these arguments. It proves that the relative sustainability of pro-poor tourism can be measured based on selected indicators covering environmental, societal, cultural-heritage, monetary, and governance facets, which are purely destination specific. The study also reiterates the importance of developing local-specific indicators for exploring facets of

destination sustainability, thereby acting as a catalyst for policy-making, destination planning, and development (UNWTO, 2004).

8. CONCLUSION

Sustainability Indicators are found in tourism literature; however, indicators for measuring progression in sustainability and its applicability in the empirical scenario are needed to measure the actual progress. Understanding the sustainability facets of development is imperative to meet the SDGs (UNWTO, 2018), emphasizing poverty reduction and well-being. The analysis shows that five distinct latent facets evolved from LSI of PA-based pro-poor tourism in India based on the exploratory sequential method. Thus, the study extends a more prudent approach to planning and management for both existing and new destinations, with minimal resource appropriation pressure while presenting their endemic products, and supports meeting the needs of present-day tourists without compromising the aspirations of future tourists.

Theoretical implications: The study provides a base for developing LSI and their considerations hitherto unexplored in the pro-poor tourism approach to development. The theoretical basis identified for understanding the five facets of sustainability of pro-poor tourism can be a cornerstone for exploring other dimensions of sustainability.

Practical implications: The result helps to understand and explore LSI for measuring sustainability, which supports developmental objectives like inclusive and sustainable use of resources at the local level (Gibbes et al. 2020). Furthermore, the study dispels the notion of emphasizing only three pillars of sustainability (monetary, environmental/environmental, and socio-cultural heritage) and explores the governance dimension as a part of the LSF of PPT.

The study helps all tourism stakeholders understand sustainability parameters, design alternate programs, or strengthen existing practices to reorganize resource management to attain sustainability objectives.

9. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The study incorporates the sustainability facets of pro-poor tourism strategies only from beneficiaries, i.e., indigenous communities' perspective (demand dimension) of such strategies, and not from the supply perspective (other tourism industry stakeholders). Further, the study was confined to PA-based tourism destinations.

This study further extends the scope for replicating the model for other similar or related new as well as existing destinations and can also adopt different measurement strategies appropriate to local level requirements to draw a holistic idea about the sustainability practices. Furthermore, the study extends its applicability in examining all the five facets in detail, particularly governance facets of sustainability which are hitherto overlooked in many studies about tourism in general.

Disclosure statement

No potential conflict of interest was reported by the authors.

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