

EXPLORING THE POTENTIAL OF CULINARY TOURISM AS A SUSTAINABLE TOURISM STRATEGY FOR PROMOTING TOURISM IN CENTRAL INDIA.

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Abstract: *The present study was conducted in the states connected to central India to identify the pace of Tourism development with reference to culinary tourism development and its scope. Although the tourist sector has grown significantly over the past 20 years and aids in the economic development of countries, there are certain serious risks connected to this sector's unparalleled global expansion. States connected to Central India in particular are rich now in all aspects, including infrastructure, connectivity, flora and wildlife, historic architecture and culture that has been preserved, shrine sites, and other things that are sure to draw both local and foreign tourists. It also appreciates various climates. By promoting the use of regional foods and customs in cooking, culinary tourism helps to sustain regional farmers, markets, and craftspeople. Food speaks to everyone and breaks down barriers. Deeper relationships between visitors and the community can be cultivated via culinary experiences, which may lead to chances for return travel. Collaborating with regional chefs, food reviewers, and culinary historians may enhance the genuineness and complexity of gastronomic excursions and encounters.*

Introduction

The tourism industry has significantly contributed (Neto, 2015) to economic growth (Telfer, 2015) and social reforms (Crouch, 1999), but it also poses a significant threat to global sustainability (Chakroborty A. Sarkar S, 2021). While the tourist sector has made a substantial contribution to social reforms (Crouch, 1999) and economic progress (Telfer, 2015), it also offers a serious danger to the sustainability of the world economy. Since 1950, there has been a notable growth in the number of foreign visitors, with Europe being the most popular travel destination. In 2018, travel and tourism had a direct economic impact of 2.75 trillion USD on the world economy. By 2029, this amount is predicted to have grown by 3.6% yearly to USD 4,065.0 billion. While regions like North and Sub-Saharan Africa have a modest influence, the major contributors are North America, the European Union, and North East Asia. The tourist sector is assisting countries in achieving significant economic growth and social changes (Qin, Luo, Zhao,)

Central India, which is made up of the states of Madhya Pradesh and Chhattisgarh, is referred to as the "Heart of India" (Duhan, 2013). The states that border Madhya Pradesh include Uttar Pradesh, Chhattisgarh, Maharashtra, Gujarat, and Rajasthan. According to Tillin (2013), Chhattisgarh has boundaries with Madhya Pradesh on the northwest, Maharashtra on the west, Andhra Pradesh on the south, Orissa on the east, Jharkhand on the northeast, and Uttar Pradesh on the north.

India has a rich culinary history that is well-known around the world. Food connoisseurs are enthralled by the country's bounty of tastes and fragrances (Laudan, 2013). India is a gastronomic traveler's dream due to its wide variety of regional cuisines, profusion of spices, and inventive cooking methods (Bahety, 2022). The purpose of this paper is to examine the potential of culinary tourism in India and to highlight the advantages and disadvantages of its growth. Through an awareness of the elements that contribute to the culinary appeal of India, stakeholders may create strategies that effectively utilize this potential and draw in travelers who are looking for genuine gastronomic experiences (S Sharma, 2022).

In a research, (Sunlu, 2003) draw the inference that the quality of the natural and man-made environment is very important for tourism (Neto, 2003) Investigate that a suitable balance between the environment, economics, and socio- cultural aspects of tourism development for long period are sustainable in the industry (Sarkar S, 2019).

Table 1: Significant Contribution towards Sustainable development Tourism

S.No	Author	Article Title	Year of Publ.	Journal/Report	Type Of Research
1	World Commission on Environment and Development (WCED)	Our Common Future	1987	Oxford University Press	Exploratory
2	Bramwell, Bill; Lane, Bernard	Sustainable tourism A evolving global approach	1993	Journal of Sustainable Tourism	Empirical
3	Hunter, Colin	Sustainable tourism as an adaptive paradigm	1997	Annals of Tourism Research	Empirical
4	Richard Sharpley	Tourism and Sustainable Development: Exploring the Theoretical Divide	2000	Journal of Sustainable	Exploratory
5	Lucian Cernat and Julien Gourdon	Is The Concept of Sustainable Tourism Sustainable	2006	United Nations Conference on Trade and Development	Empirical
6	Saarinen, Jarkko; Manwa, Haretsebe	Tourism as a Socio-Cultural Encounter: Host-Guest Relations in Tourism Development in Botswana	2008	JSTOR	Case Study
7	Richard Sharpley	The Myth of Sustainable Tourism	2010	Centre for Sustainable Development	Literature Review
8	Lane, Bernard; Bramwell, Bill	Critical research on the governance of tourism and sustainability	2011	Journal of Sustainable Tourism	Empirical
9	Corporate, Ambience	Identification of Tourism Circuits across India	2012	Ministry of Tourism Gov. Of India	Case Study

Proposed Research Model

After conceptualizing the variables, the following research model was proposed which is based on causal model in which variables viz. sustainable development & Culinary tourism as endogenous variable against Flavors of India (FI), Stakeholder Enlightenment (SE), Social Upliftment (SU), Culinary heritage, (CH), Awareness (AW), Strengthening Economy (SEC), and Food Tourism Market Size (FTM) are taken to be the exogenous variables. Besides, the

demographics like age, experience, education qualification and gender are considered as controlling variables.

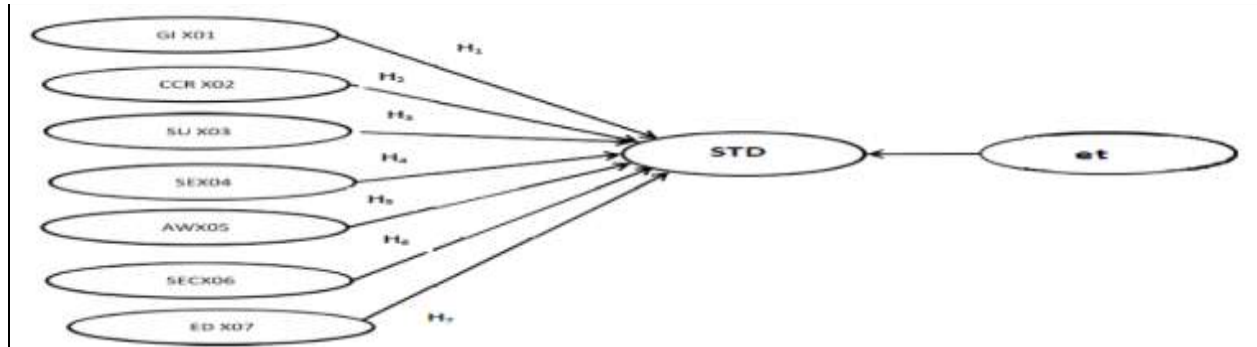


Figure 1: Proposed Research Model

The frame work developed for the identification and exploration of all those factors which are responsible for sustainable development (A, 2017) of tourism in the Central Indian states. It is also aimed to provide recommendations and suggestion for enhancement and development tourism in the state.

Research Hypotheses

The relationship between Culinary tourism & Sustainable development will be analyzed with the following research hypothesis:

Research Hypothesis: The hypothesis sustainable development of tourism is listed below

H₁: Flavors of India (FI) has significant impact on tourism development & sustainability.

H₂: Culinary heritage, (CH) has significant impact of development of tourism sustainably.

H₃: Social Upliftment (SU) has significant impact of sustainable development of tourism.

H₄: Stakeholder Enlightenment (SE) has significant impact of sustainable development of tourism.

H₅: Awareness (AW) has significant impact of sustainable development of tourism.

H₆: Strengthening Economy (SEC) has significant impact of sustainable development of tourism.

H₇: Food Tourism Market Size (FTM) has significant impact of and will be a big opportunity for development of culinary tourism.

Variable	Index
Flavors of India	X01
Culinary heritage	X02
Social Upliftment	X03
Stakeholders Enlightenment	X04
Awareness	X05
Strengthening Economy	X06
Food Tourism Market Size	X07

Flavors of India (FI), Stakeholder Enlightenment (SE), Social Upliftment (SU), Culinary heritage, (CH), Awareness (AW), Strengthening Economy (SEC), and Food Tourism Market Size (FTM)

Where, the independent variable and dependent variables are defined as below

$$X01 = \sum_{i=0}^5 X1i; X02 = \sum_{i=0}^6 X2i; X03 = \sum_{i=0}^3 X3i; X04 = \sum_{i=0}^3 X4i; X05 = \sum_{i=0}^3 X5i; X06 = \sum_{i=0}^3 X6i; X07 = \sum_{i=0}^4 X7i; Y = e \sum_{i=0}^3 Y_i$$

Mathematical Framework

$$Y = \beta_0 + \beta_1 X01 + \beta_2 X02 + \beta_3 X03 + \beta_4 X04 + \beta_5 X05 + \beta_6 X06 + \beta_7 X07 + et$$

$$\hat{Y} = \beta_0 + \sum_{i=1}^7 \beta_i X_i + e_t$$

Factors Exploration

This study employs the research methods from previous studies in the relevant domains, for which a 5-point Likert scale was employed in the construction of the questionnaire. A pilot research is conducted on a small sample of individuals, and data is gathered from 519 respondents.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.803
Bartlett's Test of Sphericity	Approx. Chi-Square	5730.781
	Df	351
	Sig.	.000

The sample is sufficient for exploratory factor analysis, as shown by the KMO value of 0.803, which is more than 0.6 (Kaiser, 1974). This suggests that correlations are relatively compact, leading to the production of unique components (Field, 2000). Given a probability value of less than 0.05, the Bartlett's Test of Sphericity is significant. It follows that the correlation matrix, often known as the R-Matrix, is not an identity matrix. Anti-image correlation was employed to verify the sufficiency of the data for every statement. Data is adequate for each statement utilised, since each statement's K.M.O. value was found to be more than 0.6.

Once more, KMO and Bartlett's Test are used to examine the modifications resulting from the above-mentioned removal of one statement, and they are judged to be sufficient.

Table 4: KMO and Bartlett's Test after Anti Image

K.M.O. (Measure of Sampling Adequacy)		.811
Sphericity (Bartlett's Test)	Chi-Square	2621.396
	Dof	350
	Probability Value	.000

Table 3 presented a summary of the Principal Component Analysis (PCA) eigen values for each factor, both prior to and during extraction, as well as following rotation (Field, 2000). There are 27 variables before extraction, as shown in the table below. After taking into account every procedure to eliminate cross-loadings between statements and factors, the table below is displayed (Mulaik, 1990).

According to the eigenvalues, component-1 accounts for 23.11% of the total explained variance, component-2 for 11.56%, and so on. There are seven components that account for 63.2% of the explained variance under the extraction sums of Squared Loadings, where the components with eigen values >"1" are mentioned. Total explained variance is reorganised as a result of factor axis rotation. The variance has now altered according to the restructured factors: Factor-1 now accounts for 16.58% of the overall variation, Factor-2 for 10.0%, and Factor-7 for 5.11%.

The PCA-identified variables are examined using a Rotated Component Matrix to categorise the statements. The dependability of all 27 assertions was examined using the Cronbach's α test for internal consistency and reliability, which categorises them into 7 categories. The loadings of the seven identified variables that were extracted are displayed in the Rotated Matrix of Components table below. Greater loading indicates a greater contribution from the factor for the variables that have been discovered. Less than 0.4 loading is suppressed.

From the rotated component matrix it can be found that the three factors Flavors of India (FI), Stakeholder's Enlightenment (SE) and Awareness (AW) are converged by the orthogonal rotation as a single factor. These factors represented as Upliftment (SU), Stakeholder's Enlightenment (SE) and Culinary heritage, (CH) are combined and renamed as Social Concern (SC).

After orthogonal rotation matrix and factor convergence, hypothesis are revised as below

H_{r1}: Flavors of India (FI), has significant impact on tourism development & sustainability.

H_{r2}: Culinary heritage, (CH) has significant impact of development of tourism sustainably.

H_{r345}: Social Concern (SC) has significant impact of sustainable development of tourism.

H_{r6}: Strengthening Economy (SEC) has significant impact of sustainable development of tourism.

H_{r7}: Food Tourism Market Size (FTM) has significant impact of sustainable development of tourism.

Revised Model

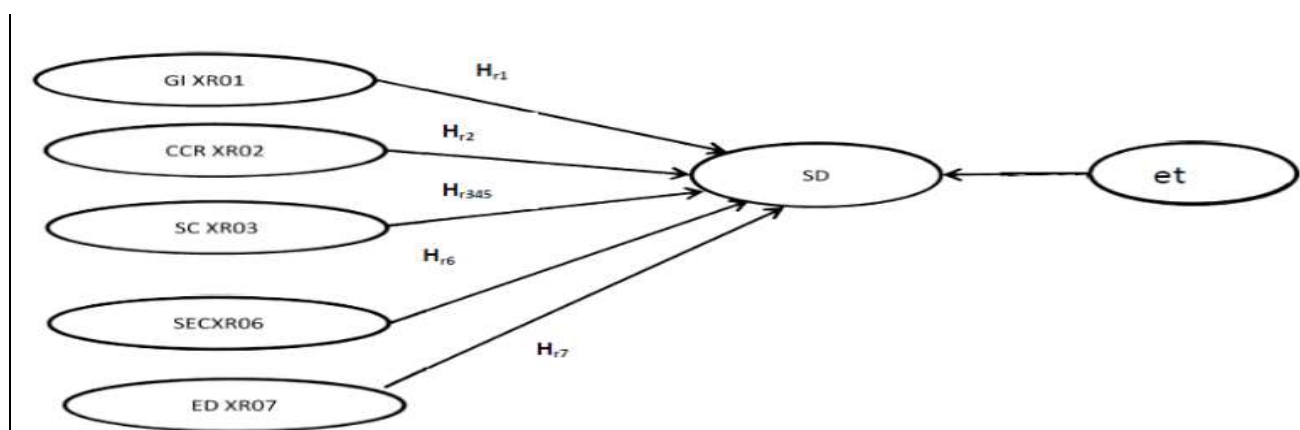


Figure 3: Revised Model

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_{345} + \beta_6X_6 + \beta_7X_7 + et$$

For estimating the relationships between the dependent variable “Sustainable development of tourism” and independent variables as explored Flavors of India (FI), Culinary heritage (CH), Social Concern (SC), Strengthening Economy (SEC), and Food Tourism Market Size (FTM) regression analysis is used.

Table 5: Regression Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.390 ^a	.152	.144	.633	1.885

a. Predictors: (Constant), Xr7, Xr1, Xr2, Xr6, Xr3

b. Dependent Variable: Y

The model was constituted earlier seven explanatory variables. Three variables were merged together as a single variable, this is how there was 43% reduction in the amount of explanatory

variables resulting into five variables. These five constructs explains 15.2% variance of the model. There is no sign of autocorrelation as Durbin-Watson statistics is 1.885 as the value is between range of 0 to 4 (Durbin & Watson, 1950).

ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.918	5	7.384	18.404	.000 ^b
	Residual	205.815	513	.401		
	Total	242.733	518			

a. Dependent Variable: Y

b. Predictors: (Constant), Xr7, Xr1, Xr2, Xr6, Xr3

The conclusion is that there is a statistically significant correlation between the independent and dependent variables at a 95% confidence level since the p-value is less than or equal to the significance threshold.

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	1.540	.188	8.201	.000			
	Xr1	.218	.036	.273	6.002	.000	.800	1.249
	Xr2	-.022	.036	-.027	-.631	.528	.913	1.095
	Xr3	.055	.040	.066	1.391	.165	.744	1.345
	Xr6	.091	.033	.124	2.762	.006	.819	1.222
	Xr7	.110	.047	.111	2.347	.019	.743	1.345

a. Dependent Variable: Y

From the coefficients of the above table, out of five explanatory variables namely Flavors of India (FI), Culinary heritage, (CH), Social Concern (SC), Strengthening Economy (SEC), and Ecological Degradation (ED), the independent variables Government Initiative (GI), Strengthening Economy (SEC), and Food Tourism Market Size (FTM) are found to have significant impact on sustainable tourism development (STD). Therefore the revised hypothesis

H_{r1} , H_{r6} and H_{r7} are accepted while H_{r2} and H_{r345} are rejected as significant value is well above 0.05 at 95% confidence interval.

The collinearity index shows that there are no chances of collinearity as the maximum VIF(Variance inflation factor) value of independent variables in the model fit is 1.345 which is much less than 10 (Rawlings & Pantula, 1998).

Predictions

In order to get a Sustainable development of Tourism (STD) for particular *independent variables* values we can use the fitted equation.

$$Y = 1.540 + 0.218X1 + 0.091X6 + 0.11X7 + 0.633$$

Where Y = Sustainable Development of Tourism (STD)

X1= Flavors of India (FI),

X6 = Strengthening Economy (SEC)

X7 = Food Tourism Market Size (FTM)

Findings

1. Seven factors that account for 63.22% of the expressed variance have been retrieved following the factor extraction approach. After the identified factors were rotated, the total variations that each factor exhibited were computed.
2. By looking at the Scree-Plot with the eigen values, it is possible to see that seven factors must be taken into account. This is because the plot naturally bends after seven factors, and the curve flattens after point seven, indicating that seven factors must be taken into account.

The Seven identified Factors are

- i. Factor-1: Flavours of India (FI), which comprises five statements and accounts for 16.58% of the overall variance, is regarded as the first factor. Its computed eigen value is 4
- ii. Factor-2: Culinary heritage, (CH) considered as second factor which consists of six statements accounting to 10.0% of the total variation having the calculated eigen value of 2.7.

- iii. Factor-3: The third component, social upliftment, is composed of three statements that together explain for 9.47% of the variation in the total and have an eigen value of 2.55.
- iv. Factor-4: The fourth component, Stakeholder Enlightenment, is composed of three statements that contribute for 9.36% of the overall variance and have an eigen value of 2.53, according to calculations.
- v. Factor-5: Awareness considered as fifth factor which consists of three statements accounting to 6.55% of the total variation having the calculated eigen value of 1.77.
- vi. Factor-6: Strengthening Economy considered as sixth factor which consists of three statements accounting to 6.12% of the total variation having the calculated eigen value of 1.66.
- vii. Factor-7: The seventh component, Food Tourism Market Size (FTM), is made up of four statements that together account for 5.11% of the variation in the total and have an eigen value of 1.38.

From the rotated component matrix it can be found that the three factors Social Upliftment (SU), Stakeholder's Enlightenment (SE) and Awareness (AW) are converged by the orthogonal rotation as a single factor. These factors represented as Upliftment (SU), Stakeholder's Enlightenment (SE) and Awareness (AW) are combined and renamed as Social Concern (SC). The factor "Flavors of India (FI)" with mean value of 2.83 and standard deviation of 1.08 and with regression coefficient of 0.218 has positive impact of sustainable development of tourism in the state connected to central India.

Conclusion

The above study concludes that impact of culinary tourism & sustainability is explained through various stakeholders for this the conceptual model was framed using 7 identified factors and confirmed using confirmatory analysis taking the required samples and analysed the model fit, sustainable tourism development is a strategic process and it requires efforts from all stake

holders but primary responsibility is to devise a frame work for this which includes Flavors of India (FI) which will govern according to the options of sustainability and will keep vision of tourism development with the other stake holders (example Visitors & Host Community) must be made aware of the idea of sustainability and how culinary tourism can contribute if efforts can be made as the education level is good the goal of Potential of Desi Fare to Capture Global Tourism Market.

This illustrates how India's cuisine may have a soft power effect elsewhere."ATITHI DEBO BHAVA" represents "INCREDIBLE INDIA" in its purest form. A place that, in addition to offering strangers a drink of water and a hearty meal that serves as a stepping stone to other culinary pursuits always treat them with the utmost respect and decency. India is a place where the natural grandeur, gorgeous location, mountains, lush green valleys, pleasant climate, and most importantly, the kind people, best showcase its culinary dimension. As a result, India offers the finest and most refined cuisine since, every hundred meters, the food's dimensions shift and visitors may sample unique cuisine and experiences that they cannot find elsewhere.

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