



## Role of Tourism in Generating Employment in Bodh Gaya: Opportunities in the Emerging Global Trade Order

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### ABSTRACT

Tourism has emerged as a significant driver of regional development, playing a crucial role in generating employment and fostering socio-economic growth. Bodh Gaya, an international Buddhist pilgrimage center, provides a suitable context to examine the role of tourism in employment generation and its linkage with the emerging global trade order. This study analyzes the contribution of tourism to employment creation while exploring its integration with global trade dynamics, with a focus on inclusive and sustainable development. Primary data were collected from 245 respondents engaged in the tourism sector using a structured Likert-scale questionnaire ensuring reliability. The findings reveal that tourism not only enhances employment opportunities but also strengthens domestic and international linkages, promotes entrepreneurship, and expands market access. By situating Bodh Gaya within the framework of the emerging global trade order, the study offers valuable policy insights for improving infrastructure, skill development, and sustainability in pilgrimage-based economies.

### KEY WORDS

Tourism Development, Employment Generation, Global Trade, Bodh Gaya, Sustainable Development, Pilgrimage Economy.

### INTRODUCTION

Tourism is one of the fastest-growing sectors globally, with a strong capacity to generate employment and foster socio-economic growth. It contributes to nearly one in ten jobs worldwide, highlighting its critical role in inclusive development

(WTTC, 2025). In India, the tourism sector has shown remarkable resilience, contributing approximately 21 trillion to the national economy in 2024 (IBEF, 2024) and supporting 46.5 million jobs, equivalent to 9.1% of total employment (WTTC, 2025). These figures illustrate the multiplier effect of tourism as a driver of economic activity, particularly in emerging economies.

Religious and cultural tourism are central to India's tourism framework, accounting for over 60% of domestic travel (Patel & Roy, 2024). Bodh Gaya, as the site of Buddha's enlightenment and a UNESCO World Heritage site, attracts millions of pilgrims and tourists annually. This influx directly supports local livelihoods through employment in hospitality, transport, handicrafts, guiding services, and other sectors (Sharma, 2018). In 2024, Bihar recorded 6.54 crore domestic tourist arrivals (The Daily Jagran, 2025) and 7.36 lakh foreign tourist arrivals (Tripathi, 2025), positioning it among India's top-performing tourism states. The resumption of international flights to Gaya airport has further enhanced Bodh Gaya's connectivity (Times of India, 2024).

Tourism is increasingly linked to global trade frameworks. Agreements such as the General Agreement on Trade in Services (GATS) provide opportunities for destinations like Bodh Gaya to attract foreign investment (OECD, 2007), expand market reach, and integrate into global value chains (WTO, 2023). Such integration can boost employment and improve service quality and infrastructure (Gupta & Kumar, 2024), though challenges remain in equitable benefit distribution and skill development (Roy, 2023).

This study, titled "*Tourism-Led Employment Generation in Bodh Gaya: Opportunities in the Emerging Global Trade Order*", examines how tourism fosters employment and explores opportunities arising from the global trade framework. The research combines empirical data with theoretical insights to inform sustainable and inclusive tourism development.

## Significance of the Study

The study contributes to literature on tourism's economic and social impacts, particularly in Bodh Gaya, which has been less examined despite its global significance (Kumar & Singh, 2023). It highlights opportunities from globalization and trade liberalization, noting that spiritual tourism in India is projected to reach \$135.1 billion by 2033 (IMARC Group, 2025). Findings also inform policymakers by identifying gaps in infrastructure and skill development (Gupta & Kumar, 2024), helping ensure inclusive growth and cultural preservation (Gupta & Kumar, 2024). Ultimately, the study advances academic knowledge and provides practical strategies to maximize the socio-economic benefits of tourism within emerging global trade frameworks.

## Review of Literature

### Tourism Development and Employment Generation in India

Tourism in India has become a major catalyst for socio-economic growth, generating large-scale employment across formal and informal sectors. In Bihar, with its rich cultural and religious heritage, tourism is recognized as a transformative force for development and job creation (Kumar, 2016). Studies also show a strong positive relationship between tourism growth and macroeconomic development, especially in pilgrimage destinations that foster employment and reduce poverty (Singh, 2020).

### Tourism and Local Employment Creation

Tourism-led employment spans sectors such as hospitality, transport, handicrafts, guiding, and cultural performances. Religious tourism in Bodh Gaya directly and indirectly generates jobs, with training programs being essential for sustainable opportunities (Patel & Roy, 2024). Research in Bihar and Jharkhand confirms that tourism creates significant employment but notes that marginalized communities often remain excluded, highlighting inclusivity challenges (Azad & Tiwari, 2021).

### Community Participation and Sustainable Development

Community involvement is crucial for sustainable tourism. Unplanned tourism growth can lead to environmental degradation and cultural commodification if local communities are excluded from decision-

making (Roy, 2023). Studies on Buddhist tourism in Odisha indicate that infrastructural challenges limit tourism's employment potential, reflecting conditions similar to Bodh Gaya (Swain, Mishra, & Nayak, 2023). Community-based planning in Bihar has been emphasized to balance employment creation with cultural preservation (Kumar, 2016).

### **Tourism in the Context of Global Trade**

Tourism also plays a vital role in international trade in services. Liberalization of service sectors stimulates tourism development, attracts foreign investment, and enhances employment in developing countries (OECD, 2007). Bodh Gaya benefits from this trend as part of the Buddhist Circuit, where investments have boosted job creation and local incomes through improved infrastructure and services (World Bank, 2018).

### **Inclusive Development and Policy Implications**

Tourism contributes to inclusive development when employment opportunities are equitably distributed. Policy reviews stress the importance of integrating local community participation to ensure sustainable growth while preserving cultural identity (NTI Aayog, 2022).

## **Research Gap**

Although numerous studies underscore tourism's role in economic growth, employment generation, and sustainable development in India (Kumar, 2016; Singh, 2020; Patel & Roy, 2024; Azad & Tiwari, 2021), research focusing specifically on Bodh Gaya remains limited. Existing studies largely emphasize macro-level economic impacts, overlooking localized analyses of employment generation, job quality, inclusiveness, and sustainability. The potential of global trade opportunities to enhance local employment, infrastructure, and service standards has received little empirical attention. Furthermore, socio-cultural effects, skill development requirements, and community participation in tourism planning remain underexplored. This study fills these gaps by examining how tourism development and global trade linkages jointly influence employment generation in Bodh Gaya, offering actionable insights for policymakers and stakeholders to promote inclusive, sustainable, and globally integrated tourism growth.

## **Research Questions**

The following research questions explore tourism, employment, and global trade opportunities in Bodh Gaya:

1. How does tourism contribute to employment generation in Bodh Gaya?
2. What are the potential opportunities of tourism in Bodh Gaya in relation to the global trade order?

## **Objectives**

This study is conducted with following objectives:

1. To examine the impact of tourism on employment generation in Bodh Gaya.
2. To explore the opportunities of tourism in Bodh Gaya within the emerging global trade order.

## **Hypotheses**

Based on the stated objectives, the following hypotheses were formulated to guide the analysis:

- H<sub>0</sub>:** Tourism development and global trade opportunities do not exhibit a significant relationship with, nor demonstrate a significant predictive effect on, employment generation in Bodh Gaya.
- H<sub>1</sub>:** Tourism development and global trade opportunities exhibit a significant relationship with, and demonstrate a significant predictive effect on, employment generation in Bodh Gaya.

## **Research Methodology**

The study adopts a quantitative, cross-sectional design using primary data from 245 respondents in Bodh Gaya, Bihar. A structured questionnaire on a five-point Likert scale measured tourism development,

employment generation, and global trade opportunities. Respondents included hotel owners, tour operators, artisans, and local workers involved in tourism. Purposive and convenience sampling techniques were employed. Secondary data were gathered from Government reports, journals, and tourism department publications. Data were analyzed using IBM SPSS 25 through descriptive statistics, correlation, and multiple regression to examine the relationships among tourism development, employment generation, and global trade opportunities, ensuring reliability and validity of findings.

### Limitations of the Study

This study is limited to Bodh Gaya, with data collected from 245 respondents through purposive and convenience sampling, which may restrict generalizability. Being cross-sectional, it captures only a snapshot in time and relies on self-reported perceptions, which may involve bias. Moreover, the analysis focused on selected variables tourism development, employment generation, and global trade—while other influencing factors such as policy, environment, and cultural impacts were not examined in detail.

### Data Analysis and Interpretation

#### Demographic Profile of Respondents

##### Occupation:

Most respondents were employees (40%), followed by owners (20%), self-employed (12%), others (24%), and family helpers (4%). This indicates that a large portion of people are engaged in regular employment for their livelihood.

##### Gender

The majority were male (65.3%), while females accounted for 31% and others 3.7%. This shows that tourism-related activities in the area are male-dominated.

##### Age Group

Most respondents were between 25–34 years (33.1%) and 35–44 years (25.3%), followed by 18–24 (17.6%), 45–54 (16.3%), and 55+ (7.8%). This suggests that the majority of participants belong to the working-age group, actively involved in tourism and related occupations.

##### Education Level

Higher Secondary (28.2%) and Secondary (27.8%) were most common, followed by Graduate (20.8%), Postgraduate (9%), Primary (9.4%), and No Formal Education (4.9%). This reflects that most respondents possess a moderate level of education, enabling them to participate effectively in tourism-related work.

##### Monthly Household Income:

Most earned <sup>1</sup> 20,000–40,000 (24.9%) or <sup>1</sup> 10,000–20,000 (21.2%), followed by <sup>>1</sup> 60,000 (21.2%), <sup>1</sup> 40,000–60,000 (18.4%), and <sup><1</sup> 10,000 (14.3%). This implies that tourism contributes a moderate income to most households in the study area.

##### Reliability test

Before proceeding with hypothesis testing, the reliability of the questionnaire was evaluated to ensure the consistency and stability of the responses. Cronbach's Alpha was computed to confirm the adequacy of the data for subsequent statistical analysis.

**Table 1: Reliability Statistics**

Cronbach's Alpha	No. of Items
.964	3

(Source: SPSS)

The Reliability Statistics (Table 1) All 245 responses collected through the structured questionnaire were valid for analysis, with no missing or excluded cases. This ensured the completeness and consistency of the dataset, thereby enhancing the robustness of subsequent statistical tests. The reliability assessment produced

a Cronbach’s Alpha value of 0.964 across the three constructs Tourism Development (TOUR), Employment Generation (EMP), and Global Trade Opportunities (GT). Such a high coefficient demonstrates excellent internal consistency, confirming that the measurement scale was both reliable and appropriate for advanced statistical analysis.

## Hypothesis Testing

**H<sub>0</sub>:** Tourism development and global trade opportunities do not exhibit a significant relationship with, nor demonstrate a significant predictive effect on, employment generation in Bodh Gaya.

**H<sub>1</sub>:** Tourism development and global trade opportunities exhibit a significant relationship with, and demonstrate a significant predictive effect on, employment generation in Bodh Gaya.

## Correlation Test

After establishing the reliability of the scale, the next step was to examine the degree of association among the study variables. Correlation analysis was employed to assess the strength and direction of relationships between tourism development, employment generation, and global trade opportunities.

**Table 2: Correlations**

		TOUR_mean	EMP_mean	GT_mean
TOUR_mean	Pearson Correlation	1	.903**	.902**
	Sig. (2-tailed)		.000	.000
	N	245	245	245
EMP_mean	Pearson Correlation	.903**	1	.893**
	Sig. (2-tailed)	.000		.000
	N	245	245	245
GT_mean	Pearson Correlation	.902**	.893**	1
	Sig. (2-tailed)	.000	.000	
	N	245	245	245

\*\* . Correlation is significant at the 0.01 level (2-tailed).

(Source: SPSS)

Table 2 (Correlations) shows the Pearson correlation coefficients among the three main constructs: Tourism Development (TOUR\_mean), Employment Generation (EMP\_mean), and Global Trade Opportunities (GT\_mean).

### 1. Tourism and Employment Generation

- The correlation between TOUR\_mean and EMP\_mean is 0.903, which is very strong and positive.
- This indicates that as tourism development in Bodh Gaya increases, employment generation also increases substantially.
- Significance value ( $p = 0.000$ ) confirms that this relationship is statistically significant at the 1% level.

### 2. Tourism and Global Trade Opportunities

- The correlation between TOUR\_mean and GT\_mean is 0.902, also very strong and positive.
- This shows that improved tourism development aligns with greater integration into global trade networks.
- The p-value (0.000) again confirms significance at the 1% level.

### 3. Employment Generation and Global Trade Opportunities

- The correlation between EMP\_mean and GT\_mean is 0.893, indicating a strong positive relationship.
- This implies that as global trade opportunities expand, employment generation in Bodh Gaya’s tourism sector also increases.
- The relationship is statistically significant at the 1% level.

**Multiple Regression Analysis:** Following the correlation analysis, multiple regression was applied to evaluate the combined effect of tourism development and global trade opportunities on employment generation. This technique was selected as it allows for assessing both the individual and collective contribution of predictor variables, thereby providing deeper insights into the hypothesized relationships.

**Table 3: Model Summary**

Multiple R	R Square	Adjusted R Square	Apparent Prediction Error
.905	.819	.813	.181

Dependent Variable: EMP\_mean  
Predictors: TOUR\_mean GT\_mean

(Source: SPSS)

Table 3 (Model Summary) reports the strength and explanatory power of the regression model, where *Employment Generation (EMP)* is the dependent variable, and *Tourism Development (TOUR)* and *Global Trade Opportunities (GT)* serve as predictors. The multiple correlation coefficient ( $R = 0.905$ ) indicates a very strong positive association between the predictors and employment generation. The coefficient of determination ( $R^2 = 0.819$ ) shows that approximately 81.9% of the variance in employment generation can be explained jointly by tourism development and global trade opportunities. The Adjusted  $R^2$  value (0.813) confirms the stability of the model after adjusting for sample size and predictors. The Apparent Prediction Error (0.181) is relatively low, further validating the predictive accuracy of the model. Overall, these results demonstrate that tourism development and global trade opportunities are highly influential in explaining employment generation in Bodh Gaya.

**Table 4: ANOVA**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	200.603	7	28.658	152.981	.000
Residual	44.397	237	.187		
Total	245.000	244			

Dependent Variable: EMP\_mean  
Predictors: TOUR\_mean GT\_mean

(Source: SPSS)

Table 4 (ANOVA) presents the overall significance of the regression model, where *Employment Generation (EMP)* is the dependent variable and *Tourism Development (TOUR)* and *Global Trade Opportunities (GT)* are the predictors. The regression model reports an F-value of 152.981 with a significance level of  $p = .000 (< 0.05)$ , which indicates that the model is statistically significant. This means that, collectively, tourism development and global trade opportunities have a significant impact on employment generation in Bodh Gaya. The high F-statistic and low p-value confirm that the predictors contribute meaningfully to explaining the variance in employment generation, thereby supporting the rejection of the null hypothesis that no such relationship exists

**Table 5: Coefficients**

	Standardized Coefficients		df	F	Sig.
	Beta	Bootstrap (1000) Estimate of Std. Error			
TOUR_mean	.530	.073	3	53.054	.000
GT_mean	.405	.072	4	31.747	.000

Dependent Variable: EMP\_mean

(Source: SPSS)

Table 5 (Coefficients) shows that both *Tourism Development* ( $\hat{\alpha} = 0.530$ ,  $p < 0.001$ ) and *Global Trade Opportunities* ( $\hat{\alpha} = 0.405$ ,  $p < 0.001$ ) have a significant positive impact on *Employment Generation*. Tourism exerts the stronger influence, indicating it is the primary driver of job creation in Bodh Gaya, while global trade also contributes substantially. These results confirm the rejection of the null hypothesis and highlight tourism-led employment as central, reinforced by global trade opportunities.

Based on the regression results, the findings demonstrate that both Tourism Development and Global Trade Opportunities exert a significant positive effect on Employment Generation in Bodh Gaya. The high explanatory power of the model ( $R^2 = 0.819$ ), the highly significant ANOVA results ( $p < 0.001$ ), and the positive standardized coefficients ( $\hat{\alpha} = 0.530$  for Tourism,  $\hat{\alpha} = 0.405$  for Global Trade) collectively confirm the robustness of the relationship. Therefore, the null hypothesis stating that “*There is no significant relationship between tourism in Bodh Gaya, employment generation, and global trade opportunities*” is rejected, and the alternative hypothesis is accepted.

## Findings of the Study

- High Reliability of Constructs:** The Cronbach’s Alpha value of 0.964 indicates that the constructs Tourism Development (TOUR), Employment Generation (EMP), and Global Trade Opportunities (GT) are highly reliable for analysis.
- Tourism as a Key Driver of Employment:** Correlation and regression analysis revealed a strong positive relationship between tourism development and employment generation in Bodh Gaya. This highlights tourism as a critical contributor to local livelihood opportunities.
- Global Trade Opportunities Strengthen Employment Impact:** Global trade opportunities were also found to have a significant positive effect on employment generation, suggesting that tourism, when aligned with global trade linkages, further enhances job creation.
- Model Significance:** The regression model showed an  $R^2$  value of 0.819, explaining 81.9% of the variance in employment generation, thereby confirming the robustness of the model.
- Rejection of Null Hypotheses:** Statistical results led to the rejection of the null hypotheses, affirming significant relationships among tourism development, employment generation, and global trade opportunities.

## Recommendations

- Infrastructure Development:** Invest in modern transport, accommodation, and digital facilities to attract more tourists and support global trade linkages.
- Skill Development:** Provide vocational training in hospitality, guiding, handicrafts, and digital trade to enhance local employability.
- Global Partnerships:** Strengthen international collaborations to promote Bodh Gaya as a global tourism and trade hub.
- Sustainable Tourism Practices:** Encourage eco-friendly tourism initiatives to balance development with environmental protection.
- Promotion of Handicrafts & Local Products:** Leverage e-commerce and global trade platforms to expand the reach of Bodh Gaya’s cultural and artisanal products.
- Community Participation:** Involve local communities in tourism planning and decision-making to ensure inclusive growth.
- Policy Support:** Implement Government incentives for small businesses and startups in tourism and allied sectors.

## CONCLUSION

The study examined the role of tourism in Bodh Gaya as a driver of employment generation within the framework of emerging global trade opportunities. The findings revealed a strong and statistically significant relationship between tourism development, global trade opportunities, and employment creation, supported by high reliability (Cronbach's Alpha = 0.964) and robust model fit ( $R^2 = 0.819$ ). Tourism development ( $\beta = .530$ ) and global trade opportunities ( $\beta = .405$ ) were found to be major contributors to employment generation, highlighting their combined potential in shaping Bodh Gaya's socio-economic growth. The rejection of the null hypothesis confirms that tourism, when integrated with global trade linkages, not only creates jobs but also strengthens Bodh Gaya's position in the global economy.

Overall, the study underscores the importance of tourism as a catalyst for inclusive and sustainable development, while emphasizing the need for policies that connect local opportunities with global trade networks.

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