THE RELATIONSHIP BETWEEN TOURISM AND INCOME INEQUALITY IN VIETNAM

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Abstract: ***This study investigates the relationship between tourism development and income inequality at the provincial level in Vietnam. We employ panel data from 2018 to 2022, to analyze the impact of tourism on income inequality. The results reveal that tourism development consistently and significantly increases income inequality. Policy implications are discussed.***

• Keywords: *tourism; income inequality; Vietnam.*

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1. Introduction

Income inequality, the uneven distribution of income across individuals or groups, is a critical global issue with implications for social stability and economic growth (Cingano, 2014). Despite joint efforts by international organizations, governments, and academia, income inequality continues to persist and has even worsened in recent years. The rise in income inequality significantly impacts the socio-economy, as studies have shown it leads to reduced economic growth and efficiency (Piketty, 2014), weakens social unity and trust in institutions weakens democratic governance and political stability and exacerbates poverty and social welfare challenges, particularly in developing nations (Atkinson, 2015).

Vietnam represents a dynamic, developing, and transitional economy in which tourism has been strategically positioned as a leading sector to foster economic growth and broaden livelihood opportunities, where traditional economic activities have proven insufficient for achieving sustainable reductions in income inequality. Despite a relatively stable Gini coefficient throughout the past decade, there has been limited substantive progress in addressing inequality. While relative inequality has not markedly increased, absolute inequality has widened, reflecting a growing income gap between socioeconomic groups.

This study focuses on analyzing the relationship between tourism and income inequality by examining the case of Vietnam. To achieve this, the study uses the spatiotemporal heterogeneity models with Vietnamese provincial-level data in the period 2018 - 2022. Our research question is: Does tourism growth narrow or widen income inequality at the national level in developing economies?

The structure of this paper is as follows: Section 2 provides a review of the relevant literature; Section 3 describes the data and outlines the research methods; Section 4 presents the descriptive statistics and empirical results; and Section 5 concludes with key findings, policy implications, and limitations.

2. Literature review

Income inequality is described as "the gap between the rich and the poor" (Subramaniam et al, 2022) that leading to lower per capita income for the poor and making it difficult to eliminate or even reduce poverty rates. Reducing income inequality is a vital objective for every nation, and addressing these disparities will be one of their most significant challenges. In which tourism fundamentally involves the temporary movement of people to destinations outside their usual environment, mainly for leisure, business, or other purposes. It includes not only the travel and activities at the destination but also the range of economic services and activities developed to support and accommodate these travelers.

On the one hand, a rising volume of studies indicates that the expansion of tourism may exacerbate income inequality, as the distribution of benefits is often skewed toward particular groups (Castilho and Fuinhas, 2025). Employment in tourism services, especially in hospitality, retail, and other service-oriented sectors, is frequently characterized by seasonality, low wages, and precarious contracts, offering limited social protection and weak prospects for upward mobility (Valente et al., 2023). Generally, although tourism is a major global industry that generates billions in revenue and employs millions worldwide, its benefits are not distributed evenly, and in many cases, wealth is concentrated among elites, large corporations, or foreign investors, thereby reinforcing structural inequalities (Zhang, 2022). These findings suggest that, despite tourism's economic significance, its development can deepen

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social and economic divides when left unchecked by redistributive policies or inclusive planning strategies. In contrast, numerous studies demonstrate tourism's potential to mitigate income inequality, particularly in developing and tourist-dependent economies. Seetanah et al. (2023) analyzed data from 83 countries over 1990–2019 and found that tourism development reduces income inequality. This reduction is attributed to tourism's ability to create employment opportunities for low-skilled workers, such as in hospitality or cultural tourism, thereby providing income to marginalized communities. In addition, capital investment in the tourism sector fosters inclusive growth by creating jobs and improving income distribution (Fuinhas, 2025). Therefore, the effect of tourism on income inequality is nuanced and depends on various factors, including a country's development stage, policy framework, and tourism management (Alam & Paramati, 2016). Tourism can reduce inequality by creating jobs for low-skilled workers (Boopen Seetanah et al, 2023) and increasing female employment, while also generating government revenues that fund social programs (Fuinhas, 2025). However, tourism can also exacerbate inequality due to the prevalence of low-paid, seasonal jobs, and the concentration of economic benefits among wealthier business owners.

To the best of our knowledge, there are very few studies that have examined the impact of tourism development on income inequality, and existing findings remain fragmented. Most prior research either focuses on tourism's contribution to economic growth or on inequality in general, without directly linking the two. Therefore, this study applies an OLS regression model to investigate how tourism affects income inequality in Vietnam, using the Gini coefficient as a measure of income distribution. This paper contributes to filling an important gap in literature and provides new empirical evidence on the relationship between tourism and inequality in a developing country context.

3. Research methodology

3.1 Econometrics models

The paper begins with Ordinary Least Squares (OLS) estimation and then mitigates possible heterogeneity among panels by employing the fixed effects (FE) approach, following the framework proposed by Wooldridge (Wooldridge, 2010) and Linear regression absorbing multiple levels of fixed effects proposed by Coreia (Correia, 2016).

$$Inequality_{it} = \alpha_0 + \theta_1 Tourism_{it} + \beta_1 X_{it} + \varepsilon_{it} \quad (1)$$

$$Inequality_{it} = \alpha_0 + \theta_1 Tourism_{it} + \beta_1 X_{it} + \mu_i + \gamma_t + \varepsilon_{it} \quad (2)$$

Where, $Inequality_{it}$ is income inequality index in location i at time t; $Tourism_{it}$ is the the level of tourism development in location i at time t; X_it is a set of control variables; μ_i is province fixed effects, capturing unobserved time-invariant characteristics of each province; γ_t is year fixed effects, capturing common shocks or macroeconomic factors across all provinces in year t.

3.2. Data collection

We sourced data from Vietnamese province-level data from 2018 to 2022 collected from the General Statistics Office (GSO). Following previous studies, the set of explanatory variables is designed to capture the direct determinants of income inequality across provinces (Ho et al., 2022). We include five variables grouped into four categories: economic structure and institutional quality are controlled by the Provincial Competitiveness Index (PCI) and the level of industrialization which indicate the competitiveness and industrial capacity of each region; social development is represented by the multidimensional poverty index and Consumer Price Inflation (CPI), capturing living standards and price stability; demographic characteristics are reflected by population size. This dataset has been widely used in previous literature. Table 1 reports detailed definitions and descriptions of all variables used in the analys.

Table 1. Description of variables

Variable	Description	Mean	Std. dev.	Min	Max	VIF
Income_inequality	The Gini coefficient is a statistical measure of income (or wealth) inequality within a nation or a group.	0.36	0.06	0.20	0.53	-
Ln(tourism_ development)	Total local retail sales of goods and consumer service revenue, including: (1) Retail sales of goods revenue; (2) Accommodation and food services revenue; (3) Tourism revenue; and (4) Other revenue.	3.88	2.07	0.00	10.89	2.73
PCI_score	The PCI on Vietnam's business environment conducts an annual business survey, assessment and ranking of the economic governance quality of provincial authorities in creating a favorable business environment for development of the private sector.	64.71	2.96	56.29	75.09	1.48
Consumer_price_ index	The Consumer Price Index (CPI) tracks changes in the overall price level of a basket of goods and services typically purchased by households over time. It reflects the cost of living and is widely used as an indicator of inflation.	93.23	2.44	86.83	101.47	1.55
Industrial_index	Industrial index is an indicator that evaluates the growth rate of industrial production every period. The index is calculated by the quantity of production, as the percentage of the quantity of industrial production generated in the current and base periods	109.14	10.09	73.10	188.50	1.01
Multidimensional_ poverty	An index that measures the percentage of households in a country deprived along three dimensions –monetary poverty, education, and basic infrastructure services – to capture a more complete picture of poverty	7.95	8.71	0.00	44.50	1.73
Ln(population)	Average population refers to the mean number of people in a given area calculated over a specific period of time	7.14	0.58	5.75	9.15	2.09

4. Results and discussion

First, a multicollinearity test was conducted to ensure that the selected variables are appropriate and do not bias the estimation results. As reported in Table 1, all variables exhibit low VIF values (below 3), with an average VIF of 1.76. This confirms that the dataset is suitable for examining the relationship between tourism development and income inequality. Furthermore, Table 2 indicates that tourism has a statistically significant and

positive effect on income inequality in both the OLS and fixed-effects models.

Table 2. OLS regression and FE results

	OLS	FE	FE
Ln(tourism)	0.008***	0.007***	0.007***
	(0.002)	(0.002)	(0.002)
PCI	-0.003***	-0.002*	-0.001
	(0.001)	(0.001)	(0.001)
Multi_poverty	0.004***	0.004***	0.004***
	(0.000)	(0.000)	(0.000)
ind_index	-0.000**	-0.001**	-0.000*
	(0.000)	(0.000)	(0.000)
CPI	-0.002	-0.001	-0.000
	(0.001)	(0.001)	(0.001)
lnpopulation	-0.027***	-0.027***	-0.027***
	(0.005)	(0.005)	(0.005)
Year fixed effects	No	Yes	Yes
Regional fixed effects	No	No	Yes
Control variables	Yes	Yes	Yes
Constant	0.869***	0.783***	0.671***
	(0.125)	(0.126)	(0.137)
R-squared	0.556	0.587	0.625

*Robust standard errors reported in: *** p<0.01, ** p<0.05, * p<0.1.*

The results reveal the relationship between independent variables and income inequality. Specifically, the coefficients (0.008 in OLS; 0.007 in both fixed effect models) are highly significant at the 1% level, indicating that an increase in tourism activity is associated with higher levels of income inequality. This finding supports the argument that tourism expansion may exacerbate disparities in income distribution, particularly when benefits are captured disproportionately by higher-income groups or capital-intensive sectors (Subramaniam et al, 2022).

The coefficient on the Provincial Competitiveness Index (PCI) is negative in the OLS and Year FE models (-0.003 and -0.002, respectively), suggesting that improvements in local governance and business environment can help reduce income inequality. However, this effect becomes statistically insignificant once regional fixed effects are introduced, implying that much of the variation is explained by unobserved regional characteristics rather than within-province changes over time.

The variable Multidimensional Poverty (Multi_ poverty) consistently shows a positive and significant association with income inequality (0.004 across all models, at the 1% level). This suggests that regions experiencing higher levels of multidimensional deprivation also tend to face higher inequality, reinforcing the idea that poverty and inequality are mutually reinforcing phenomena.

Finally, the Industrialization Index (ind_index) has a small but negative coefficient (-0.000 to -0.001), significant at the 5% or 10% level. This indicates that greater industrialization is associated with marginal reductions in inequality, potentially reflecting the role of industrial development in generating broader employment opportunities and diffusing income more evenly.

5. Conclusion

The findings reveal that tourism development, while a strong driver of provincial economic growth, consistently increases income inequality. This calls for deliberate policies that address not only the scale of tourism growth but also its distributional effects. In the short term, Vietnam should focus on ensuring that the benefits of tourism reach broader segments of society, particularly disadvantaged groups and lagging provinces. Community-based tourism and the integration of local households into tourism supply chains represent powerful tools in this regard. For example, supporting small-scale homestays, local tour operators, and handicraft cooperatives through microfinance, tax incentives, and training programs can directly link poor households to tourism markets. By reducing reliance on large, capital-intensive projects dominated by external investors, such initiatives can generate more inclusive income flows and help counteract the inequality-enhancing effects identified in the regression results.

At the same time, inter-provincial coordination is critical in the short term. Competition among provinces for tourism revenues often reinforces inequality, as wealthier regions attract more investment and infrastructure, while poorer regions fall further behind. Policies that encourage collaborative marketing campaigns, multi-destination travel circuits, and joint promotion platforms can spread tourism flows across regions rather than concentrating them in established hubs. Knowledge-sharing platforms, where successful provinces share best practices in sustainable tourism development with lagging regions, would also help reduce asymmetries in capacity and policy implementation.

The major limitation of this study lies in its reliance on provincial-level panel data, which, while useful for capturing broad trends, may mask significant variations within provinces and across different social groups. Thus, future studies can expand the scope by using stronger methodological approaches to provide a deeper and more nuanced understanding of the tourism–inequality nexus in Vietnam.

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