

ANALYSIS OF FACTORS AFFECTING THE NUMBER OF POOR PEOPLE IN DISTRICTS/CITIES IN BALI PROVINCE

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Abstract

Poverty is one of the most complex social issues and continues to be a major challenge for Indonesia. The complexity of poverty stems not only from low income and consumption levels but also from various interrelated factors such as unequal access to education, healthcare, and employment—especially in rural and remote areas. This study fills a gap in the literature by integrating five important factors within the local context of Bali Province, which have rarely been explored in previous research, particularly considering the post-pandemic economic conditions and regional development disparities. The research was conducted across 8 regencies and 1 city in Bali Province, aiming to analyze the influence of variables including tourism sector contribution, Human Development Index (HDI), working-age population, labor force participation rate (LFPR), and household consumption level on the number of poor people. A multiple linear regression method was applied, using 54 observations. The findings show that: (1) the variables of tourism sector contribution, HDI, working-age population, labor force participation rate, and household consumption level have a simultaneous and significant effect on poverty levels in the districts/cities of Bali Province from 2019 to 2024; (2) the variables of tourism sector contribution and household consumption level have a partially negative and significant effect on poverty; (3) the HDI variable has a partially positive and significant effect on poverty; and (4) the working-age population and labor force participation rate variables have a partially negative but not significant effect on poverty.

Keywords: Poverty, Tourism Sector Contribution, HDI, Working-Age Population, LFPR, Household Consumption Level

INTRODUCTION

Poverty is not a new issue in Indonesia. It is a common problem faced by almost every country in the world, particularly developing nations. This issue is not only economic in nature but has also expanded into various dimensions such as education, politics, social welfare, and healthcare. A society cannot be considered prosperous and content if a significant portion of its population lives in poverty and suffering (Rahayu Putriana, 2022). Despite numerous efforts by the Indonesian government to reduce poverty, it remains one of the country's most persistent and pressing issues (Endang Safitri, 2023). Poverty also disrupts a country's social and economic stability, a situation that worsened during the global COVID-19 pandemic, including in Indonesia. The pandemic led to a rise in poverty, particularly among

vulnerable groups who lost jobs or experienced income reductions (Zainuddin, A. 2021).

The causes of poverty can be explained through the theory of the vicious cycle of poverty introduced by Ragnar Nurkse (Arsyad, 2010). This theory describes how poverty is a self-reinforcing loop in which one adverse condition leads to another, preventing economic development. According to Indonesia’s Central Bureau of Statistics (BPS), poverty is defined as a condition of deprivation experienced by individuals or households that prevents them from meeting basic needs. BPS uses the **basic needs approach** to measure poverty, which assesses a household’s ability to afford both food and non-food essentials based on expenditure. Hence, poor individuals are defined as those whose per capita monthly expenditure falls below the poverty line (Kusumo, 2019).

Poverty is a complex and multidimensional problem. It is characterized by a lack of factors associated with quality of life (Jayanti & Sutrisna, 2021). Poverty is generally classified into three types: absolute poverty, relative poverty, and cultural poverty. According to BPS (2023), poverty remains a major issue in Indonesia, with a national poverty rate of 9.03%. This highlights the continuing challenge of ensuring equal access to education, healthcare, and employment opportunities. In Bali Province, the poverty rate is lower than the national average, at 4.00%; however, poverty reduction efforts remain crucial to prevent any societal group from being left behind amid persistent socio-economic disparities (Sari, R. 2022).

Bali is one of Indonesia’s most prominent tourist destinations, with a large portion of its population employed in the tourism sector. This industry has brought substantial benefits, including wealth creation, cultural preservation, and global recognition due to its unique traditions, arts, and natural beauty (Sulistiyafani & Sastrawan, 2021). Despite tourism’s vital role in Bali’s economy, its rapid growth has not fully addressed the region’s poverty challenges. As a result, segments of the population remain marginalized and require focused poverty alleviation strategies (Wedagama & Estrada, 2020).

The COVID-19 pandemic severely affected Bali’s economy, particularly its tourism sector. The impact varied across the province’s districts and cities, leading to different outcomes in terms of GRDP, economic growth, unemployment, and public health. Tourism plays a significant role in economic development and quality of life globally, yet in Bali, the sector’s downturn has highlighted vulnerabilities in poverty reduction efforts (Azizah & Saino, 2021). Although tourism remains the backbone of Bali’s economy, poverty persists, and many residents struggle to meet their basic needs. This underscores the urgency for regional governments to prioritize poverty reduction, as poverty is a key indicator of development success both regionally and nationally (Murdiansyah, 2014).

Table 1. Number of Poor Population in Bali Province According to Regency/City in Bali Province.

Regency/City	Number of Poor Population in Bali Province According to Regency/City (Thousands of People)					
	2019	2020	2021	2022	2023	2024
Jembrana	13.55	12.6	14.24	15.00	14.12	12.90
Tabanan	18.74	19.11	23.11	23.46	21.42	20.16
Badung	11.89	13.75	18.52	18.28	17.01	16.87

Gianyar	19.85	21.01	25.36	24.74	23.76	21.45
Klungkung	9.66	8.76	10.19	10.89	10.22	9.68
Bangli	10.08	9.56	11.68	12.17	12.24	11.79
Karangasem	25.99	24.69	28.52	29.45	27.83	27.76
Buleleng	34.26	35.25	40.92	41.68	39.52	36.55
Denpasar City	19.83	20.48	29.41	30.02	27.69	27.27
Bali Province	163.85	165.19	201.97	205.68	193.78	184.43

Source: Central Statistics Agency of Bali Province, 2025.

Based on Table 1, it can be observed that the number of people living in poverty in Bali Province experienced significant fluctuations during the 2019–2024 period. Data indicate a 0.81% overall increase in the poverty rate, primarily attributed to inflation and rising prices of basic necessities, which weakened the population's purchasing power. In 2020–2021, poverty increased by 2.22% due to the negative economic impacts of the COVID-19 pandemic, including widespread job losses and reduced household incomes.

The poverty rate rose again by 1.83% in 2021–2022, suggesting that economic recovery was still fragile and not yet fully stabilized. However, in 2022–2023, the number of poor residents declined significantly by 5.78%, reflecting improved socio-economic conditions driven by government programs that enhanced access to education, healthcare, and employment opportunities. The continued recovery of the tourism sector in 2023–2024 contributed to a further reduction in poverty by 0.49%, as the revitalization of tourism created jobs and boosted income levels.

These fluctuations reflect the challenges in poverty alleviation efforts, where external factors such as health crises and economic shocks significantly influence social and economic conditions. Key determinants of poverty in the region include economic growth, employment opportunities, education levels, and dependency on tourism.

This study finds that the number of people living in poverty is strongly influenced by the tourism sector, particularly in areas that rely heavily on this industry, such as Bali Province. Tourism creates employment opportunities in accommodation, food, and beverage services, thereby increasing household incomes. As the tourism sector expands, local economies improve, purchasing power strengthens, and poverty rates decline. Conversely, downturns in tourism—due to pandemics or natural disasters—can result in job losses and rising poverty levels.

The poor population refers to those living under economic hardship. According to Indonesia's Central Bureau of Statistics (BPS), the poverty threshold is determined by income levels insufficient to meet basic needs. The poverty line is calculated using household expenditure surveys that consider the prices of essential goods and access to public services (Prasetyo, 2020). Poverty is defined as the condition in which individuals or communities lack the resources to meet their basic needs, often measured through indicators such as income, education, and health access. During the COVID-19 pandemic, poverty levels in Bali increased due to various factors such as the tourism sector's decline, Human Development Index (HDI), unemployment rate, and educational attainment, as highlighted in previous studies.

Tourism development is a strategic approach to poverty alleviation, aligning with the first goal of the Sustainable Development Goals (SDGs): No Poverty. The tourism sector contributes to local economic growth, creates employment, and improves income, especially in regions with tourism potential. Through the development of tourist destinations, vocational training, and the empowerment of local communities in tourism-related creative economies, community welfare can be significantly improved. Tourism also generates multiplier effects on other sectors such as agriculture, handicrafts, transportation, and food and beverage, thereby broadening the distribution of economic benefits.

The tourism sector's contribution to the Gross Regional Domestic Product (GRDP) at constant prices varies across the nine regencies/cities of Bali Province—namely Jembrana, Tabanan, Badung, Gianyar, Klungkung, Bangli, Karangasem, Buleleng, and Denpasar City—during the 2019–2024 period. Badung Regency consistently recorded the highest contribution from the tourism sector to GRDP, highlighting its role as Bali's tourism hub, home to popular destinations like Kuta, Seminyak, and Nusa Dua.

Gianyar Regency, with cultural and natural attractions such as Ubud, also contributed significantly though less than Badung. Tabanan Regency, known for its natural attractions such as Tanah Lot and Bedugul, showed moderate tourism contributions through agro-tourism. Buleleng, with attractions like Lovina and Lake Beratan, has yet to realize its full tourism potential due to infrastructure limitations. Klungkung, especially the Nusa Penida area, showed a notable rise in contribution. Karangasem, known for Mount Agung and Amed Beach, has a relatively small but growing tourism contribution. Bangli, home to Kintamani and Lake Batur, exhibited limited tourism contribution. Meanwhile, Denpasar City, as the administrative and commercial center, plays an important supportive role in tourism, providing essential services and infrastructure for visitors rather than serving as a major destination (BPS, 2025).

While the tourism sector significantly contributes to regional economic development, this contribution often results in economic disparities among regencies. This indicates a need for more equitable distribution of tourism benefits to ensure all areas experience improvements in welfare. The tourism sector's economic gains remain concentrated, leaving regencies like Buleleng and Karangasem with relatively high poverty rates. This disparity underscores the importance of reducing regional inequalities to ensure a fair distribution of tourism-generated benefits.

A study by Marcella and Anas (2023) revealed that the tourism sector has a significant negative effect on poverty, as increased tourist arrivals stimulate local economic growth, create jobs, and raise income levels, especially in tourism-dependent regions. Components such as infrastructure investment, workforce skill development, enhanced tourist services, and product diversification play critical roles in expanding economic opportunities and reducing reliance on underdeveloped economic sectors.

Despite Bali's rapid GRDP growth, BPS data suggest that tourism gains remain concentrated in key areas like Badung. Less-developed areas such as Buleleng and Karangasem struggle to reduce poverty, partly due to limited access to basic services like education and healthcare. The Human Development Index (HDI) is a critical indicator of quality of life and influences regional poverty levels. In Bali, HDI scores

vary widely among regencies, with tourism-driven areas showing higher values. Uneven development has led to disparities in access to resources and services, necessitating a more equitable development strategy to ensure all communities benefit from tourism (BPS, 2025).

In 2019–2020, Bali's HDI increased by 0.12 points despite early COVID-19 disruptions. In 2020–2021, it rose again by 0.19 points, reflecting society's adaptive efforts. In 2022–2023, HDI improved by 0.66 points, and a similar increase occurred in 2023–2024 due to improvements in health and education, coinciding with the reopening of the tourism sector. External factors contributing to declining HDI include multidimensional welfare indicators that cannot be addressed simplistically. HDI growth in the post-pandemic era must be sustained by diversifying sectors beyond tourism to ensure economic stability and resilience against global risks such as COVID-19. Agricultural development, MSMEs, and service sectors are potential drivers of future growth (Utami, 2020).

Studies by Ardina (2024) and Rakhmawan & Tony (2022) found that HDI negatively and significantly affects poverty, as its core components—education, health, and access to essential services—improve individual welfare. Better education leads to higher income opportunities, and improved health increases productivity and reduces healthcare costs. Enhanced access to clean water and sanitation also eases the burden on low-income households. A lack of access to these resources can prevent individuals from benefiting from economic development, especially when job availability is insufficient for the working-age population, trapping many in poverty (Jhingan, 2004).

The number of employed individuals is a key factor in reducing poverty. Research by Erika Yustitia et al. (2021) confirmed that a higher proportion of the population aged 15 and over with jobs correlates with lower poverty rates. As more people become employed, household income rises, enabling families to escape poverty. Equal distribution of job opportunities across Bali's regencies is essential to reduce unemployment and poverty and ensure more balanced regional economic development. Inclusive policies and collaboration among government, private sector, and civil society are essential to create sustainable employment.

According to BPS (2020), the Labor Force Participation Rate (LFPR) is the proportion of the labor force relative to the working-age population. A large labor force can stimulate production and increase domestic demand, but whether population growth has a positive or negative effect depends on the economy's capacity to absorb and productively employ the labor force. This capacity is influenced by factors such as capital accumulation, input availability, and managerial efficiency (Oktafia et al., 2018). Ashari & Athoilah (2023) found a negative relationship between LFPR and poverty in the Tapal Kuda region, while Muktar et al. (2019) reported a positive correlation. These contrasting findings suggest that the LFPR's effect on poverty varies by context.

Poverty reduction is also affected by household consumption levels, which reflect purchasing power and economic well-being. In Bali, household consumption is a key indicator of macroeconomic dynamics and constitutes the largest component of regional economic structure. Higher consumption levels signify economic stability and can contribute to poverty reduction (Kolaim, 2023). Nationally, household consumption accounts for over 50% of GDP, underlining its strategic role in driving

economic activity and resilience (Almaya et al., 2021). Increases in consumption not only signal improved welfare but also play a critical role in poverty alleviation.

METHOD

This study employs a quantitative approach using associative methods to analyze the relationship between the tourism sector's contribution, Human Development Index (HDI), working-age population, labor force participation rate (LFPR), and household consumption levels on poverty in Bali Province during the 2019–2024 period. The research was conducted across nine regencies/cities in Bali, chosen due to the region's strong tourism sector coupled with ongoing economic inequality and poverty issues.

Secondary panel data covering six years (2019–2024) and nine administrative regions were obtained from the Central Bureau of Statistics (BPS). The independent variables consist of five economic and social indicators measured in percentages or index scores, while the dependent variable is the number of poor individuals, measured in absolute figures.

The analysis utilizes panel data regression models Common Effect, Fixed Effect, and Random Effect with model selection tested using the Chow Test, Hausman Test, and Lagrange Multiplier Test to determine the best-fitting model.

Classical assumption tests were conducted, including tests for normality, multicollinearity, autocorrelation, and heteroscedasticity, to ensure the validity of the multiple linear regression model. Hypotheses were tested using both simultaneous (F-test) and partial (t-test) analyses to determine the influence of each independent variable on poverty levels. The aim of this analysis is to provide evidence-based policy recommendations to address poverty amidst the post-pandemic economic dynamics in Bali.

RESULTS AND DISCUSSION

Descriptive Analysis

Table 2. Descriptive Analysis Results

	KSP	HDI	PUK	TPAK	TKM	JPM
Mean	14.72167	75.45296	238902.1	76.63685	1373189.	20.64704
Maximum	26.67000	85.22000	550214.0	86.01000	2621604.	41.68000
Minimum	6,550,000	67.34000	0	67.36000	769337.0	8.760000
Std. Dev.	5.383987	5.246189	140788.4	4.608919	431163.7	8.860951
Observations	54	54	54	54	54	54

Source: Processed Data, 2025

Information :

- KSP = Tourism Sector Contribution (Percent)
- HDI = HDI (Points)
- PUK = Working Age Population (Thousand People)
- TPAK = Labor Force Participation Rate (Percent)
- TKM = Community consumption level (Rupiah)
- JPM = Poverty (of the Soul)

Table 2 shows the number of observation points as many as 54 points obtained

from the results of multiplication between objects of 9 Regencies/Cities with a 6-year research period, namely from 2019-2024. The tourism sector contribution variable has a minimum value of 6.55 percent, a maximum value of 26.67 percent and an average of 14.72 percent with a standard deviation of 5.38 percent. The human development index variable has a minimum value of 67.34 points, a maximum value of 85.22 points and an average of 75.45 points with a standard deviation of 5.24 points. The population variable has a minimum value of 4,999 people, a maximum value of 55,024 people and an average of 238,902.1 people with a standard deviation of 140,788.4 people. The labor force participation rate variable has a minimum value of 67.34 points, a maximum value of 86 percent and an average of 76.64 percent with a standard deviation of 4.6 percent. The community consumption rate variable has a minimum value of 2,621,604 rupiah, a maximum value of 769,337 rupiah and an average of 1,373,189 rupiah with a standard deviation of 431,163.7 rupiah. The poverty variable has a minimum value of 8.76 thousand people, a maximum value of 41.68 thousand people and an average of 20.65 thousand people with a standard deviation of 8.86.

Statistical Results

This study used a semi-log linear regression analysis technique processed with the help of the Eviews program. Based on the processed data, a multiple linear regression equation can be created as follows:

$$\begin{array}{lclclcl}
 Y & = & -84,888 & - 0.706 \text{ KSP} & + 1,651 \text{ HDI} & - 2,677 \text{ PUK} & -0.040 \text{ TPAK} & - 3,592 \text{ TKM} \\
 \text{Sb} & = & (28,857) & (0.159) & (0.408) & (2,277) & (0.106) & (1,419) \\
 \text{T} & = & (-3.160) & (-4,440) & (4,049) & (-1,176) & (-0.381) & (-2,530) \\
 \text{Sig} & = & (0.0030) & (0.0001) & (0.0002) & (0.2465) & (0.7051) & (0.0154) \\
 \text{R}^2 & = & 0.971 & & \text{F} = 104.17 & & \text{Sig} = 0.000 &
 \end{array}$$

Information :

KSP = Tourism Sector Contribution (Percent)
 HDI = HDI (Points)
 PUK = Working Age Population (Thousand People)
 TPAK = Labor Force Participation Rate (Percent)
 TKM = Community consumption level (Rupiah)
 JPM = Poverty (of the Soul)

Panel Data Selection

Table 3. Results of Multiple Analysis of CEM Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.100796	58.54392	0.018803	0.9851
KSP	0.008097	0.432325	0.018729	0.9851
HDI	0.625504	0.613986	1.018759	0.3134
PUK	2.107611	9.338326	2.256948	0.0286
TPAK	-0.200299	0.355373	-0.563628	0.5756
TKM	-1.271050	5.379176	-2.362910	0.0222

Source: Processed Data, 2025

Information :

KSP = Tourism Sector Contribution (Percent)

HDI =	HDI (Points)
PUK =	Working Age Population (Thousand People)
TPAK =	Labor Force Participation Rate (Percent)
TKM =	Community consumption level (Rupiah)
JPM =	Poverty (of the Soul)

Furthermore, the same model was also analyzed using a fixed effect model. Based on the processed data in the table above, it can be seen that using the fixed effect model shows that the variables of the tourism sector contribution, HDI, and community consumption level have a significant effect, while the variables of population size and labor force participation rate do not have a significant effect on poverty in regencies/cities in Bali Province.

Table 4. Results of Multiple Analysis of FEM Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-84.88810	26.85738	-3.160699	0.0030
KSP	-0.705668	0.158918	4.440459	0.0001
HDI	1.651193	0.407794	4.049082	0.0002
PUK	-2.677169	2.276287	-1.176112	0.2465
TPAK	-0.040345	0.105831	-0.381218	0.7051
TKM	-3.591780	1.419656	-2.530034	0.0154

Source: Data Processing, 2025

Information :

KSP =	Tourism Sector Contribution (Percent)
HDI =	HDI (Points)
PUK =	Working Age Population (Thousand People)
TPAK =	Labor Force Participation Rate (Percent)
TKM =	Community consumption level (Rupiah)
JPM =	Poverty (Thousand People)

To select the best model, the model is then tested using the Chow test. If the test yields a better fixed effects model than the common effects model, the Hausman test is continued. Conversely, if the common effects model is better than the fixed effects model, the test ends with the Chow test alone.

The Chow test is useful for comparing the Common Effect (OLS) and Fixed Effect (OLS) models. The null hypothesis is that the Common Effect is superior to the Fixed Effect. If H_0 is rejected, we proceed to the Hausman test.

H_0 : The best model of Common Effect

H_1 : Best Fixed Effect Model

Table 5. Chow test results

Effects Test	Statistics	df	Prob.
Cross-section F	127.429385	(8.40)	0.0000
Cross-section Chi-square	176.937029	8	0.0000

Source: Data Processing, 2025

Based on the table above, it can be seen that the Cross section Chi square prob row. The p-value obtained = 0.00 (less than 0.05), so the decision taken is that H_1 is accepted or the Fixed Effect model is better than the Common Effect, then the model

selection test is continued with testing using the Hausman test.

Table 6. Results of Multiple Analysis of REM Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-55.81446	16.79059	-3.324152	0.0017
KSP	-0.671426	0.148088	-4.533961	0.0000
HDI	1.202298	0.226355	5.311548	0.0000
PUK	-1.303462	2.253905	-0.578313	0.5658
TPAK	0.013660	0.088599	0.154175	0.8781
TKM	-3.718620	1.300620	-2.859113	0.0063

Source: Data Processing, 2025

Information :

KSP = Tourism Sector Contribution (Percent)
HDI = HDI (Points)
PUK = Working Age Population (Thousand People)
TPAK = Labor Force Participation Rate (Percent)
TKM = Community consumption level (Rupiah)
JPM = Poverty (Thousand People)

The same model was also analyzed using a random effects model. The data processing results showed that the tourism sector contribution, HDI, and community consumption levels had a significant influence, while the population and labor force participation rates did not significantly influence poverty in regencies/cities in Bali Province.

The next step is to use the Hausman test to compare the random effect (OLS) with the fixed effect. The null hypothesis used is that the random effect is superior to the fixed effect. If H_0 is rejected, we proceed to the Hausman test.

H_0 : The best Random Effect model

H_1 : Best Fixed Effect Model

Table 7. Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. df	Prob.
Random cross-section	65.673975	5	0.0000

Source: Data Processing, 2025

Based on Table 7, the Cross-section Chi-square probability row can be seen. The p-value obtained = 0.00 (less than 0.05), so the decision taken is that H_1 is accepted or the Fixed Effect model is better than the Random Effect model. Based on the results of the panel data selection test, the best model is the Fixed Effect model.

Classical Assumption Test

1) Normality Test Results

Table 8. Normality Test Results

Jarque-Bera	1,714
Probability	0.4244
Observations	54

Source: Data Processing, 2025

The results of the normality test in Table 8 indicate that the data in this study are normally distributed. This is indicated by the Jarque-Bera Prob. value of 0.4244, which is greater than 0.05. Therefore, the data are normally distributed, and the model is suitable for further analysis.

2) Multicollinearity Test Results

Table 9. Multicollinearity Test Results

	KSP	HDI	PUK	TPAK	TKM
KSP	1,000,000	0.868056	0.491189	-0.601767	0.778371
HDI	0.868056	1,000,000	0.487784	-0.677780	0.848585
PUK	0.491189	0.487784	1,000,000	-0.291718	0.365673
TPAK	-0.601767	-0.677780	-0.291718	1,000,000	-0.439927
TKM	0.778371	0.848585	0.365673	-0.439927	1,000,000

Source: Data Processing, 2025

Information :

KSP = Tourism Sector Contribution (Percent)

HDI = HDI (Points)

PUK = Working Age Population (Thousand People)

TPAK = Labor Force Participation Rate (Percent)

TKM = Community consumption level (Rupiah)

JPM = Poverty (Thousand People)

3) Heteroscedasticity Test Results

Table 10. Heteroscedasticity Test Results

F-statistic	2.363097	Prob. F(5,48)	0.0537
Obs*R-squared	10.66674	Chi-Square Prob.(5)	0.0584
Scaled explained SS	7.497199	Chi-Square Prob.(5)	0.1862

Source: Data Processing, 2025

Based on the results of the heteroscedasticity test in the table above, it shows that the Chi-Square Prob. (2) value of 0.0584 is greater than 0.05, so the data does not have a heteroscedasticity problem.

4) Autocorrelation Test Results

The autocorrelation test is a statistical analysis used to determine whether there is a correlation between variables within a model over time. In this study, the Durbin-Watson value was used to determine the presence or absence of correlation.

DL = 1.13669

DW = 1.5062

DU = 1.7684

4 – DU = 2.2316

Based on the results of the autocorrelation calculations, it shows that the Durbin Watson (DW) value is greater than the DL value and less than 4-DU. These results indicate that there is no autocorrelation.

Simultaneous Test (F Test)

Table 11. Simultaneous Test Results (F Test)

F-statistic	104.1664
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Prob(F-statistic)	0.000000
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Source: Data Processing, 2025

Based on the test results that have been conducted in Table 11 shows that the significant value of Prob (F-statistic) is $0.000 < 0.05$, it can be concluded that it is rejected and accepted. This indicates that the variables of the contribution of the tourism sector, HDI, working-age population, labor force participation rate, and community consumption level have a simultaneous significant effect on poverty in regencies/cities in Bali Province in 2019-2024. H_0H_1

Coefficient of Determination (R²)

Table 12. Results of the coefficient of determination (R²)

squared	0.971309
Adjusted R-squared	0.961984

Source: Data Processing, 2025

The coefficient of determination is a measure of the goodness of fit of the regression equation, namely the variation of the dependent variable that can be explained by the independent variable. The coefficient of determination (functions to find out and measure the proportion of the total variation of the dependent variable explained by the independent variable simultaneously in the regression model. Based on the table above, the Adjusted R-Square value is 0.971, which shows that the poverty of the Regency/City in Bali Province is influenced by 97.1 percent by the contribution variables of the tourism sector, HDI, working age population, labor force participation rate, and community consumption level, while the remaining 2.9 percent is influenced by other factors outside the regression model. R^2)

Testing the Contribution Variables of the Tourism Sector, Human Development Index, Working Age Population, Labor Force Participation Rate, and Community Consumption Level Partially to Poverty in Districts/Cities in Bali Province (t-Test)

Table 13. Partial Test Results (t-Test)

Variable	Coefficient	t-Statistic	Prob.
C	-84.88810	-3.160699	0.0030
KSP	-0.705668	-4.440459	0.0001
HDI	1.651193	4.049082	0.0002
PUK	-2.677169	-1.176112	0.2465
TPAK	-0.040345	-0.381218	0.7051
TKM	-3.591780	-2.530034	0.0154

Source: Data Processing, 2025

The tourism sector contribution variable shows that the t-statistic value ($-4.440459 < t\text{-table } (-1.677)$) and the significance value ($0.001 < 0.05$), indicating that H_0 is rejected and H_1 is accepted. This means that the tourism sector contribution variable has a negative and significant effect on poverty in regencies/cities in Bali Province. The regression coefficient for the tourism sector contribution is -0.705668, suggesting that if the tourism sector contribution increases by 1 percent, holding

other variables constant, the number of poor individuals decreases by approximately 705 people, and vice versa.

Effect of Human Development Index on Poverty in Regencies/Cities in Bali Province

The human development index (HDI) variable shows that the t-statistic (4.049082) > t-table (1.677) and the significance value (0.002) < 0.05 , indicating that H_0 is accepted and H_1 is rejected. This implies that the HDI variable has a positive and significant effect on poverty in regencies/cities in Bali Province. The regression coefficient is 1.651193 , indicating that a 1-point increase in HDI, ceteris paribus, results in an increase of approximately 1,650 poor individuals.

Effect of Working-Age Population on Poverty in Regencies/Cities in Bali Province

The working-age population variable shows a t-statistic value of (-1.176112) > t-table (-1.677) with a significance level of $0.2465 > 0.05$, indicating that H_0 is accepted and H_1 is rejected. This means that the working-age population has a negative but not significant effect on poverty in regencies/cities in Bali Province. The regression coefficient is -2.677169 , indicating that a one-person increase in the working-age population, holding other variables constant, reduces the number of poor individuals by approximately 2,677.

Effect of Labor Force Participation Rate on Poverty in Regencies/Cities in Bali Province

The labor force participation rate variable shows a t-statistic of (-0.381218) > t-table (-1.677) with a significance level of $0.7051 > 0.05$, indicating that H_0 is accepted and H_1 is rejected. This suggests that the labor force participation rate has a negative but not significant effect on poverty. The regression coefficient is -0.040345 , meaning a 1 percent increase in the labor force participation rate leads to a decrease of approximately 40 poor individuals, assuming other variables remain constant.

Effect of Household Consumption Level on Poverty in Regencies/Cities in Bali Province

The household consumption level variable shows a t-statistic (-2.530034) < t-table (1.677) and a significance level of $0.0154 < 0.05$, indicating that H_0 is rejected and H_1 is accepted. This means that household consumption level has a negative and significant effect on poverty. The regression coefficient is -3.591780 , suggesting that a 1 percent increase in household consumption leads to a reduction of approximately 3,591 poor individuals, holding other variables constant.

Discussion

Simultaneous Effect of Independent Variables on Poverty in Regencies/Cities in Bali Province

The results of the multiple linear regression test show that the F-statistic is 104.1664 with a significance value of 0.000 , which is well below the 0.05 threshold. This indicates that, simultaneously, the independent variables (tourism sector contribution, HDI, working-age population, labor force participation rate, and

household consumption level) significantly influence poverty in Bali Province from 2019 to 2024. The high F-statistic value also suggests that the model has strong predictive power and that the independent variables collectively contribute significantly to explaining the variations in poverty levels.

Effect of Tourism Sector Contribution

Statistically, the tourism sector contribution has a negative and significant effect on poverty, confirming the hypothesis that increased tourism sector contribution reduces poverty. The beta coefficient of -0.705 implies that a 1 percent increase in the tourism sector contribution leads to a decrease of approximately 705 poor individuals. This impact arises because tourism generates employment opportunities, increases local revenue, boosts consumption of goods and services, and supports small businesses, thus contributing to poverty reduction (Gunadi, 2019).

Effect of Human Development Index

The HDI has a positive and significant effect on poverty, indicating that higher HDI scores are associated with increased poverty, thereby rejecting the hypothesis of a negative relationship. This counterintuitive result is due to disparities in HDI across different regions within Bali, reflecting unequal development in education, healthcare, and purchasing power. These disparities limit HDI improvements from benefitting all social groups equally (Yanthi & Sutrisna, 2021). Moreover, rising HDI scores may coincide with higher living costs, placing greater economic pressure on vulnerable populations. Similar findings were reported by Siregar et al. (2025) in North Sumatra.

Effect of Working-Age Population

Although the working-age population has a negative effect on poverty, the relationship is not statistically significant. This suggests that an increase in the working-age population does not necessarily lead to poverty reduction. One reason is the dominance of the informal sector, which often lacks adequate wages and social security. Many individuals, despite being counted as part of the labor force, remain impoverished due to limited income and low job quality.

Effect of Labor Force Participation Rate

The labor force participation rate also shows a negative but insignificant effect on poverty. This is because the indicator captures the number of people working or seeking work without considering job quality. High participation in informal, low-wage, or underemployment sectors limits the potential impact of labor force participation on poverty reduction (Ismalia, 2024).

Effect of Household Consumption

Household consumption level has a negative and significant effect on poverty. This aligns with Keynesian economic theory (Mankiw, 2008), which posits that increased consumption stimulates production and employment, thus driving economic growth and reducing poverty. As production rises to meet consumption demands, businesses require more labor, leading to job creation. This relationship is

supported by prior studies (Fadlilyah, 2015; Hajar, 2020) that found higher consumption levels reduce poverty.

CONCLUSION

Based on the analysis and discussion, the following conclusions can be drawn:

1. The variables of tourism sector contribution, human development index, working-age population, labor force participation rate, and household consumption level jointly have a significant effect on poverty in regencies/cities in Bali Province during the 2019–2024 period.
2. The variables of tourism sector contribution and household consumption level individually have a negative and significant effect on poverty.
3. The human development index individually has a positive and significant effect on poverty.
4. The working-age population and labor force participation rate individually have a negative but not significant effect on poverty.

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