

# Economic Determinants Of Tourism In Indonesian Districts, With Panel Data.

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## Abstract

Tourism is a determinant of economic growth. Tourism can be seen as a factor that influences economic growth. Keynesian economic growth theory views tourism in terms of consumption and imports. Thus, increasing tourism has a back-and-forth impact on growth. This research was conducted to investigate the determinants of tourism in Indonesian districts/cities. The data used was obtained from INDODAPOER (World Bank, 2023). The analysis method uses univariate, bivariate and multivariate methods with panel data. The dependent variable is tourism (IDR Million). Meanwhile, the independent variables are Total Revenue (Idr. Million), Total Population, GDP on agricultural sector (IDR Million), Household Access to Electricity: Total (in % of total household), Regional GDP. It was found that all independent variables except GDP on agricultural sector (IDR million) had a positive impact on the growth of the tourism sector in Indonesia during the study period, namely, 2006 - 2019.

**Keyword:** Socioeconomic determinan, tourisme, GDP growth, districk, Indonesia

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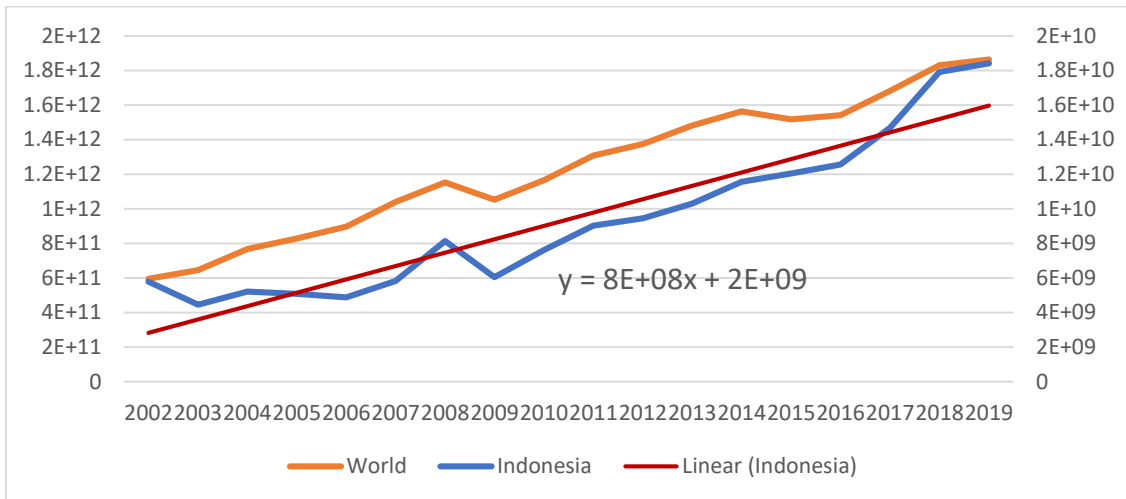
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## I. Introduction

The tourism industry has become the largest economic sector in the world today. Several tourist destinations are growing very quickly, in addition to the current favorite tourist destinations, including Europe and America. Globally, international tourist arrivals have increased from 25 million people in 1950 to 278 million in 1980, 674 million in 2000, and reached 1186 million people in 2015. In the 21st century, tourism became an important and the fastest growing sector for many countries after the telecommunications and information sectors (Crouch-Ritchie, 1999).

Tourism has become the main industry (leading industry) in the framework of trade between the two countries, having globally from 25 million globally in 1950 to 278 million in 1980, to 674 million in 2000, and reaching 1186 million in 2015. Likewise, international receipts earned by Destinations worldwide have surged from US\$104 billion in 1980, US\$495 billion in 2000 to US\$1260 billion in 2015. Tourism is one of the leading industries, in terms of international trade between countries. In addition to receipts earned in destinations, international tourism has also generated US\$211 billion in exports through international passenger transport services that were rendered to non-residents in 2015, bringing the total value of tourism exports up to US\$1.5 trillion, or US\$4 billion a day, on average. International tourism now represents 7% of the world's exports in goods and services, up from 6% in 2014, as tourism has grown faster than other world trade, over the past four years (UNWTO 2017).

Figure 1 shows the growth in world and Indonesian revenues from the tourism sector in 2002 – 2019. It can be seen that world revenues are experiencing an increasing trend. The trend in revenue from Indonesia's tourism sector has increased on average by US\$ 800,000,000 per year from 2002-2019 (World Bank 2023). The tourism industry sector is a very promising sector as a determinant of economic growth

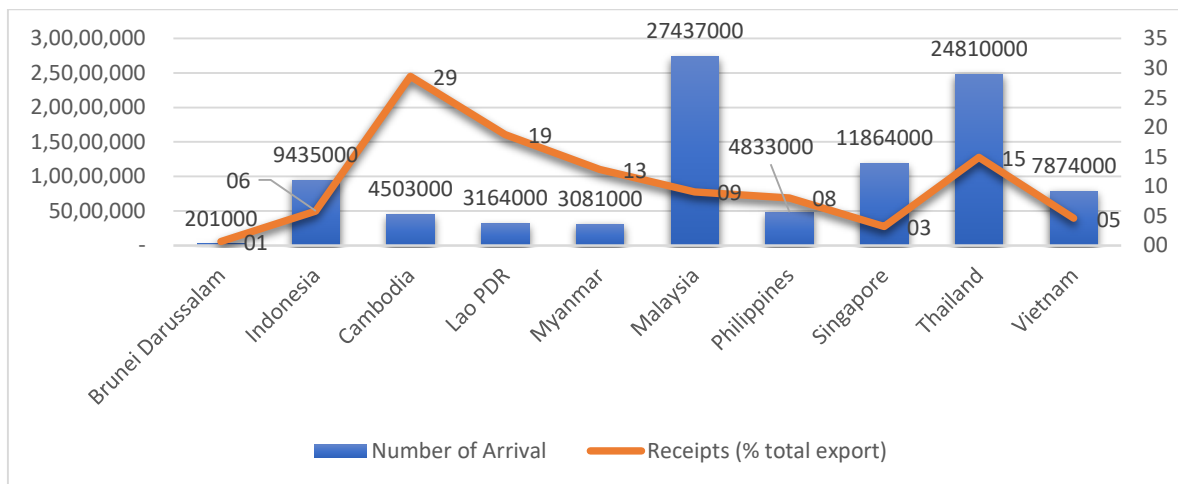


Source: World Bank, 2023. Own calculation.

Figure 1

**World and Indonesian Revenue from the Tourism Sector (US\$ Million) (2002-2019)**

Contemporary growth in tourism is a gradual consequence of increasing wealth in society and greater availability of goods and services, especially luxury goods (Gökovali, U., Bahar, O., 2006). The development of the tourism industry can encourage economic growth directly or indirectly, firstly by stimulating the growth of other sectors and secondly by increasing domestic income and effective demand. Seghir et al. (2015) reported on a number of studies discussing the relationship between economic growth and the tourism industry, including traveling.

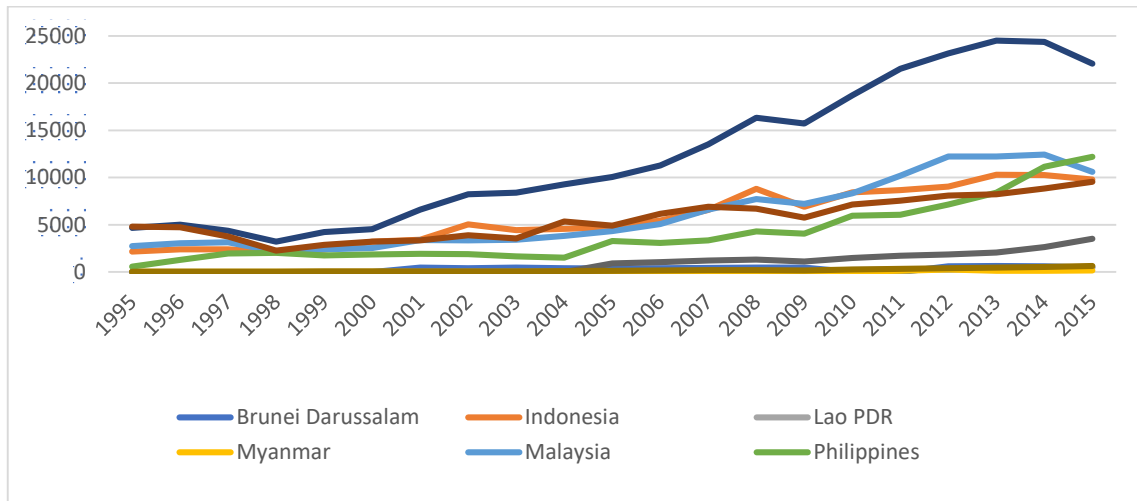


Source: World Bank, 2020. diolah

Figure 2

**Number of Arrivals and Receipts (% of total Exports), Asean Country, 2014.**

The number of tourist visits and Receipts (% of Total Export) for ASEAN countries in 2014 can be obtained (Figure 2). Malaysia was visited by the largest number of tourists with 27,437,000 people, followed by 24,810,000. Meanwhile, Indonesia was visited by 9,435,000 foreign tourists in 2014. From the same picture, it can be seen that the largest percentage of exports from ASEAN countries obtained from tourism receipts was experienced by Cambodia at 29%. Next followed by Laos. Indonesia received income from tourism amounting to 5.8% of total exports in 2014. Figure 2 shows the number of tourist arrivals in ASEAN countries in 2015. From the figure it is shown that Indonesia ranks 4th as the country receiving the most tourist visits in 2015.



Sumber: Wordbank data. Accessed 4 Oktober 2023. Diolah

**Gambar 3**  
**Tourism expenditure (million US Dolar), ASEAN Country, 1995-2015**

Figure 3 shows expenditure on tourism in ASEAN countries 1995-2015 (million US dollars). From Figure 3, it can be seen that among ASEAN countries, Singapore is the country with the largest expenditure on tourism. Then followed by Indonesia and Malaysia.

**Research question**

The question in this research is the factors that influence the size of tourism in city districts in Indonesia. because tourism is a factor in expenditure, of course according to the classic Keynes theory, tourism has a positive impact on economic growth.

Why is it necessary to research expenses? Because tourism expenditure is classified as a component of consumption and has an impact on GDP calculations. Revenue from the tourism sector can also be treated as revenue from the import sector.

**Data and Method**

The data in this research was obtained from The Indonesia Database for Policy and Economic Research (INDO-DAPOER), World Bank. The available data consists of 492 districts in Indonesia with panel data from 2006 to 2018. The dependent variable is tourism and culture function expenditure (in IDR). The independent variables are the socioeconomic and demographic background of the Indonesian population, namely Total Income (Idr. Million), Total Population, GDP on agricultural sector (IDR Million), Household Access to Electricity: Total (in % of total household), and Regional GDP

**Analysis method**

The analysis method in the research was carried out using univariate, bivariate and multivariate regression analysis with panel data for 2006 - 2019. Univariate data analysis is shown in Table 1. Meanwhile, analysis using the bivariate method is presented in Figure 4 - Figure 7

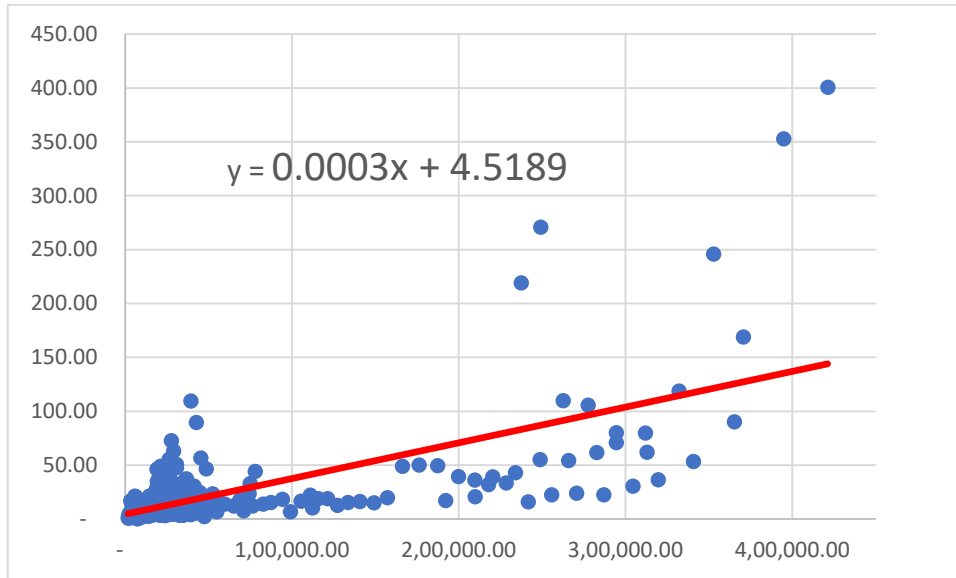
Figures 4, 5, 6, and 7 show that Regional GDP has a positive impact on tourism growth in Regencies/Cities in Indonesia

**Table 1**  
**Descriptive Statistics**

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Tourism and Cultural Function (IDR Million)	363	,000	400.389,00	18516,96	39816,87
Total revenue (IDR Million)	363	,00	28297361,48	2205374,60	3216811,03
GDP on Agriculture Sector (in IDR Million), Constant	363	287573,96	52628433,15	8489535,45	10676827,31
Total Population	363	572812,71	43938796,00	6801301,72	9815135,38

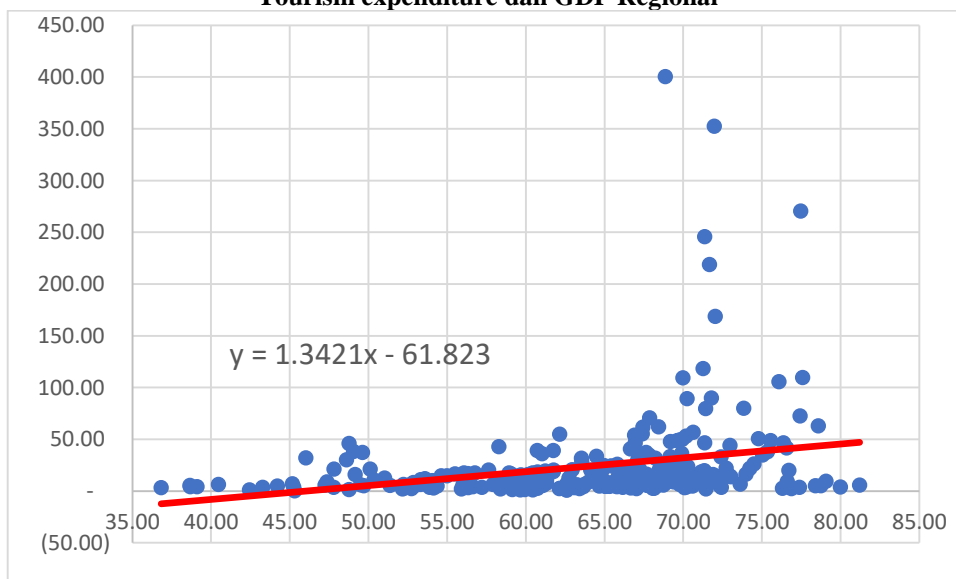
Household Access to Electricity: Total (in % of total household)	363	,00	99,97	70,48	31,69
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Source: INDODAPOER, World Bank 2023, own calculation



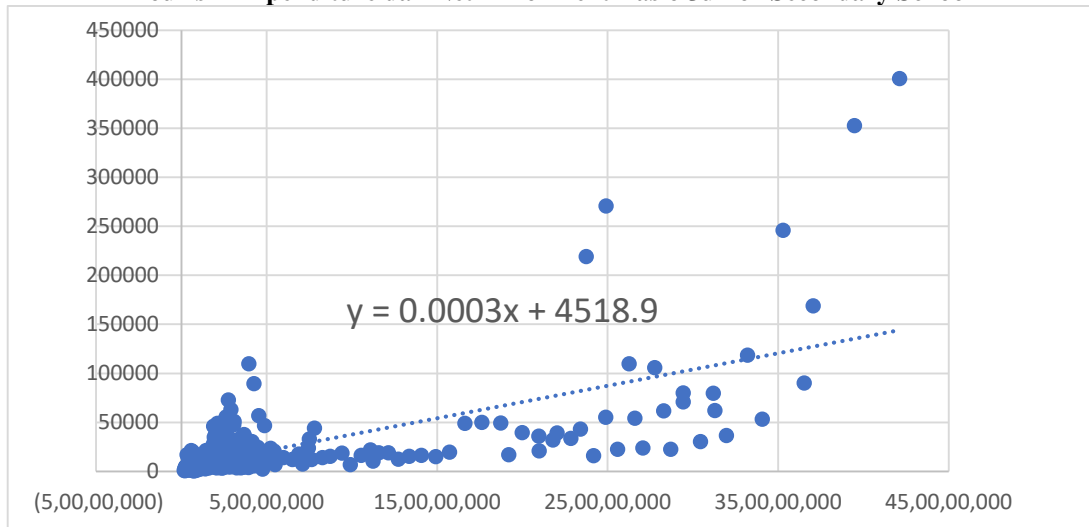
Source: INDODAPOER, World Bank 2023, own calculation.

**Figure 4**  
**Tourism expenditure dan GDP Regional**



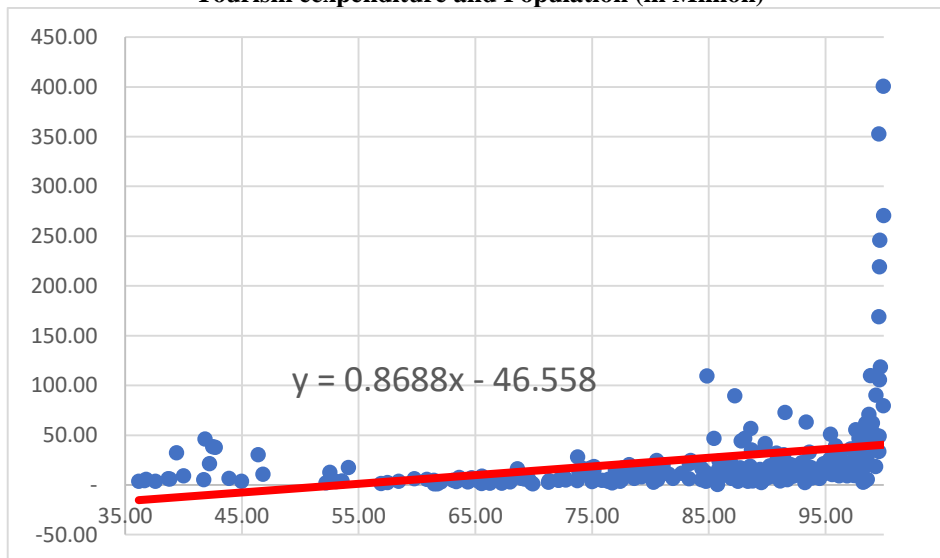
Source: INDODAPOER, World Bank 2023, own calculation.

**Figure 5**  
**Tourism Expenditure dan Net Enrollment Rasio Junior Secondary School**



Source: INDODAPOER, World Bank 2023, own calculation.

**Figure 6**  
**Tourism expenditure and Population (in Million)**



Source: INDODAPOER, World Bank 2023, own calculation.

**Figure 7**  
**Tourism Expenditure and household access to electricity, Indonesian Regency, 2006 -2018**  
Multivariate analysis with panel data for 2006 – 2018 is presented in Table 2.

**Table 2.**  
**Variables, Coefficient, Standard error, t, and significance**

No	Variables	Coef	Std. Error	t	Sig
1.	Total Revenue (Idr. Million)	0,010	0.000	24.570	,000
2	Total Population	0.001	0.000	3.382	0.001
3	GDP on agricultural sector (IDR Million)	-0.002	0.000	-5.481	0.000
4	Household Access to Electricity: Total (in % of total household)	94,910	38.405	2.471	0.014
5	GDP Regional	0.003	0.000	3.831	0.001
7	Constant	-4088,371	2859,676	-1.43	0.154

Source: INDODAPOER, World Bank 2023, own calculation.

## II. Conclusion

From bivariate and multivariate analysis it was found that the variables Total Revenue (IDR Million), Total Population, GDP on agricultural sector (IDR Million), Household Access to Electricity: Total (in % of total household), and Regional GDP statistically had a significant effect on spending on tourism in Indonesia. Every IDR 1 million increase in Total Revenue (IDR Million) is used for tourism amounting to 0.01 million rupiah. Every increase in population by one person has an impact on increasing tourism spending by 0.001 million rupiah. Then GDP in the agricultural sector affected the tourism sector with a decrease of 0.002 million rupiah. Every increase in infrastructure development, namely a one percent increase in population with electricity, has an impact on tourism spending of 94,910 million rupiah. Every one million rupiah increase in regional GDP results in an increase in tourism spending of 0.003 million rupiah.

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