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ARTÍCULO

The Impact of Sustainable Tourism Growth on the Economic Development: Evidence from a Developing Economy

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Abstract: Currently, tourism development has become a major component of global economic growth, and this phenomenon requires the attention of scholars and policymakers. This study explores the impact of tourism growth on economic growth as assessed by international tourism earnings, international tourism expenditures, international tourist arrivals, and international tourist departures. As control variables, inflation and foreign direct investment (FDI) were included. From 1991 through 2020, the researchers retrieved secondary data from a secondary source such as World Development Indicators (WDI). The researchers used the Augmented Dickey-Fuller (ADF) test to determine the unit root and the Quantile Autoregressive Distributed Lag (ARDL) model to examine the relationship between variables. The findings indicated that international tourism earnings, international tourism expenditures, international tourist arrivals and departures, inflation, and FDI positively correlate with economic growth. This report provides policymakers with guidelines for developing tourism-based economic growth programs.

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1. Introduction

Over the past few decades, there have been rapid changes reported all around the globe. This phenomenon is the outcome of technology. The technological transformation has converted the world into a global village. This globalization of the world has a very much influence over the tourism sector. This has impacted almost every aspect of the economy. They also resulted in cultural exchange. People have more chances to travel the globe to explore the world, do business, and exchange cultures. The sector which has most of this globalization impact is the tourism sector. The tourism sector is considered one of the major contributors to the country's economy. One of the reasons the tourism industry is further associated with several other sectors. One of the few is transportation, hotel, food etc. This industry has its effect at all levels of society. Both developed and developing countries pay special attention to the development of this sector to support their economy and the well-being of society. This globalization has created easier and more affordable travel methods as tourists have a wide range of options. The tourism sector of many developed countries contributes a lot to their economies.

Conversely, countries that do not prioritize their tourism sector may not get the same benefits as the others. Infrastructure and technology are also crucial for a country to have a thriving tourism industry that contributes to its economy like other nations. Many nations are adopting effective tourism policies to attract increasing tourists. The tourism industry must use tourism-specific technologies To fulfill its objectives,. The tourist industry is a multibillion-dollar industry expanding in all world regions. Numerous nations are focused on their tourist industries to improve tourism sector revenues. In the modern era, technology plays a crucial role in every endeavor. Technology has familiarized our world and opened up new avenues for innovation (Ghorbani Dastgerdi, Yusof, & Shahbaz, 2018; Zhuang, Yang, Razzaq, & Khan, 2021).

Both international and domestic, tourism is the economic sector in Indonesia with the highest growth rate. The industry has grown at 9.7 percent annually, three times that of other economic sectors in the previous decade. Although tourism can undoubtedly benefit economic growth, negative impacts need to be accounted. The government must maintain a clear international profile while ensuring that Indonesians have access to better living standards without being displaced from their natural habitats. From sustainability and ethics to anthropology and economics, this problem can be examined from various angles. Given that tourism has become an increasingly vital industry in Indonesia, it is essential to identify and study its growth trends. To investigate this topic, we require data not influenced by end-users (tourists) or respondents (tourism offices). The Indonesian government enacted numerous policies to improve the tourism industry. The Indonesian government invested more in tourist development in 2016 by luring more foreign investors. In three of the ten regions, the government has also acquired promises from possible investors totaling US$70 million for the construction of accommodations, marinas, and ecotourism facilities. Singgalen, Sasongko, and Wiloso (2019). These policies made by the Indonesian government seem to be very successful and have benefited its tourist industry very much. Indonesia is ranked seventh place in Lonely Planet's top 10 countries to visit in 2019. In 2019, Indonesia recorded 16.10 million foreign tourist arrivals, seeing a 1.9% increase from 2018. From 2010 to 2021, tourism revenues in Indonesia averaged 2392.11 USD Million, with a top of 4722.71 USD Million in the third quarter of 2019 and a low of 76.94 USD Million in the third quarter of 2021. That is about 4.97% of Indonesia's GDP until 2019, but it decreases in 2020 and 2021 because of the covid-19 crisis. Indonesia's tourist industry also contributes significantly to the country's economy. In 2019, the tourism industry in Indonesia generated 9.2 percent of the country's GDP Rindrasih, Witte, Spit, and Zoomers (2019). Since 2015, the tourist sector's contribution to GDP has increased every year. However, it was predicted to fall in 2020 due to the COVID-19 pandemic. Indonesia is enriched by the beautiful natural resources that attract tourists the most; also, the country's policies are very friendly. The importance of any sector of the country can be evaluated by the contribution of that particular sector to the country's economy. The GDP from the tourism sector in Indonesia is given in Figure 1.

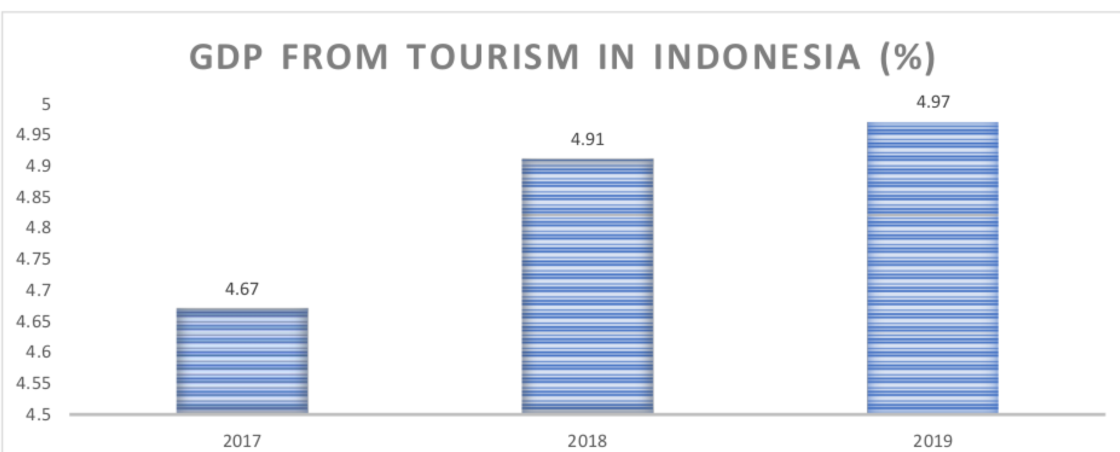

Figure 1: GDP from Tourism Industry in Indonesia

The present study will address some gaps in the literature, such as 1) being one of the most significant and highlighted nexus between tourism and economic development, particularly from an Indonesian perspective. However, it has been extensively researched but has not yet reached its peak. 2) Ren, Can, Paramati, Fang, and Wu (2019) examined the effect of tourism quality on economic development in the Mediterranean economies, whereas the current study will focus on tourism development and economic development in Indonesia using new data set. 3) Sokhanvar, Çiftçioğlu, and Javid (2018) examined the effect of tourism on the country's economic development. In contrast, the current study will examine tourism factors such as international receipts and expenditures, international tourist arrivals, inflation, and foreign direct investment in Indonesia. 4) Zhang and Liu (2019) examined the distinct effects of FDI, economic development, and innovation, whereas the current study will focus on the relationship between tourism and economic development in Indonesia using an updated data set. 5) The present study model consists of economic development and sub-factors of tourism, such as international tourism receipts, international tourism expenditures, international number of tourist arrivals, inflation, and foreign direct investment, all of which have been previously tested in Indonesia, which is why the present study will test the equation from an Indonesian perspective using a new data set. 6) Paramati, Alam, and Lau (2018) examined the relationship between tourism investment, development, and carbon emission in European Union economies, whereas the current study will investigate the tourism sector in Indonesia from an economic development standpoint. 6) Adeola, Boso, Osabutey, and Evans (2020) worked on foreign direct investment and tourism development in African economies. In contrast, the present study will add the economic development variable and tourism factor investigated with proxies such as international tourism receipts, international tourism expenditures, and international tourist arrivals from the Indonesian perspective. The significance of the study is that 1) it will highlight the importance of tourism for the improvement of the country's economy, particularly Indonesia's; 2) it will assist professionals in revising their policies for the improvement of the tourism sector to enhance Indonesia's economic development, and 3) it will assist researchers in identifying additional aspects of the tourism sector that have an impact on Indonesia's economic development. The study structure is divided into five phases. The first phase will present the introduction. In the second phase of the study, the evidence regarding economic development, international tourism receipts, international tourism expenditures, international number of tourist arrivals, inflation, and foreign direct investment will be discussed in the light of past literature. The third phase of the study will spotlight the methodology employed for collecting data regarding economic development, international tourism receipts, international tourism expenditures, international number of tourists' arrivals, inflation, and foreign direct investment, and its validity will be analyzed. In the fourth phase, the study results will be compared with the pieces of evidence reviewed from the literature. In the last phase, the study implications, conclusion, and future recommendations will be presented, concluding the paper.

2. Literature Review

The world is earning from various sources, and different channels facilitate economic development. Tourism is an important element supported worldwide, and people enjoy traveling to other countries. Keeping in view: Liu, Yu, and Wang (2022) assessed the flows of inbound and international tourism prominently exchange the revenues for strong economies. Tourists spend substantial money on transportation, lodging, and food during trips and visits. This scenario illustrates the interests of contemporary individuals and their means of income in the majority of industrialized and developing nations. In addition, Chaudhry, Nazar, Ali, Meo, and Faheem (2022) highlighted the connection between institutional performance, real exchange rates, environmental quality, and tourism receipts for economic development.

People are increasing their investments in other nations, which are often spent and structured to generate more revenue through the facilitation of travelers and tourism. The success of countries like Indonesia is largely based on the tourism industry, which attracts tourists from other nations. Kisswani, Zaitouni, and Moufakkir (2020) explored the asymmetric effects and implications of tourism receipts on oil prices and economic development, both locally and internationally. Visitors spend enormous amounts of money in the country they visit, boosting economic growth. When tourists choose Indonesia as a destination for their vacation, they typically spend more money on travel and entertainment. As a result, international tourism earnings provide a greater proportion of the money provided by tourists to the local population and government.

Similarly, Sivan (2020) described the connection between economic development, community, and leisure and their significant contributions to economic development. Numerous jobs are created for the local populace through tourism management, overseen by local bodies. Tourism is not the only endeavor contributing to economic progress; there are many more. The revenues generated by international tourism and travel contribute significantly to the expansion and improvement of economies.

Over the past few decades, tourism has attained a considerable rise in the world, due to which many countries diversified their investments. Even though the people living in the local limits of their countries used to travel in their beautiful areas, they invested a huge amount while visiting the beautiful and renowned local areas. In this context: Gholipour and Tajaddini (2018) investigated the dimensions and channels of outgoing tourist expenditures and consumer confidence that impact economic development sustainability. International tourism has also gained importance due to the rising beauty, mostly in the mountainous areas. Many hill stations in emerging nations are of interest to wealthier nations. The inhabitants of these nations experience ecstasy when they visit famous hill stations and sea vistas at great expense.

Similarly, Larsen and Wolff (2019) compared the expenditures, contentment, and tendency toward the economic conditions of local and international tourists. International tourism expenditures contribute positively to economic development and long-term viability. Developing nations like Indonesia derive the majority of their revenue from international tourism. Expenses are borne by locals who are more connected to and convinced of the value of visiting Indonesia's most renowned sites. Perles-Ribes, Moreno-Izquierdo, Torregrosa, and Ramón-Rodríguez (2021) described the relationship between visitor expenditures, seasonality, and satisfaction with a consolidated tourist destination in the context of economic growth. This reward for tourism on a local and international scale is significant and beneficial for economic development. Typically, the expenditures consist of travel, entertainment, and food and lodging costs.

Moreover, in this context, Pérez-Gladish, Ferreira, and Zopounidis (2021) examined the relationship between environmental sustainability, social cohesion, and economic development concerning tourism's beneficial role. Tourism expenditure is one-way individuals with varying sources of income attempt to satisfy their needs and desires. Local expenditures play a prominent role in increasing people's expenditures, although this is helpful for economic development. While international tourism expenditures also play a significant role in influencing the economic development of both the country of receipts and the country from where the expenditures are incurred.

Over the past few years, tourism worldwide has been growing, and youth has most significantly adapted to this change. The international number of tourists has grown, but local tourists have also increased. This growth indicates that the arrival of tourists worldwide has significantly grown and contributed a significant and prominent portion toward the economic development. In this context: Barman and Nath (2019) examined the determinants of international tourists' arrival and their considerable role in the economic development in developing countries. Tourists are continuously arriving from all over the world and using much money for traveling and tourism worldwide. This is a positive depiction of international tourism development and economic stability by the rising numbers of tourist arrivals in tourist countries.

Furthermore, Starosta, Budz, and Krutwig (2019) analyzed the impacts and influence of tourist arrivals in tourist destinations popular for the sustainability and development of economies. It is important for any country where the tourists are importantly increased as it involves investment and poses a role in economic development. Hosting countries like Indonesia earn huge worth from the arrival of tourists, and it is beneficial for the development of the economy. Similarly, Can and Gozgor (2018) asserted the nexus between tourism growth and tourist arrivals with the market diversifications for economic development. In the past few years, the arrival of tourists in Indonesia and other certain countries has considerably increased. This increment not only inserted and uplifted the measures of investment but also helped in increasing economic development.

Furthermore, Cárdenas-García and Pulido-Fernández (2019) investigated the role of tourism in economic development tools while considering the international arrivals of tourists. More arrival in the tourist countries means a rising level of investments and opportunities for the local people. Furthermore, the people who live in the visiting areas benefit from the money that uplifts their lifestyle of people. Many people in Indonesia are earning more revenue from the arrival of tourists which is positive for the economic development.

Due to a preference for observing nature, the global movement of tourists has significantly expanded in all regions. People from all over the world are rapidly migrating to other countries for their natural beauty and travel spots. Even still, residents of each country are more likely to visit the natural beauty spots of their own country. Gil-Alana, Ruiz-Alba, and Ayestarán (2020) evaluated the relationship between tourism departures and arrivals based on time trends, persistence, seasonality, and their significance in economic development. This shows that people and tourists leave the planet in greater numbers as their appreciation for natural beauty grows. This increase in foreign tourist arrivals and departures impacts economic growth as well. In addition, Barbosa, Santos, and Santos (2021) evaluated the foreign departures of migrants and tourists and their significance in developing economic conditions. The increased number of tourist departures has a detrimental influence on economic growth.

Although it is advantageous for the host countries, it has a significant and detrimental effect on departure nations like Indonesia. Similarly, Okano and Naoi (2020) described the impact of tourism places and experiences on migration as essential for economic sustainability and growth. People used to go from their own countries to admire the natural beauty of countries like Indonesia in several essential nations. Numerous developed nations and their citizens used to invest in tourism-dependent nations and reap the rewards in return. Barbosa et al. (2021) analyzed the economic development paths broadly supported by human capital and the worldwide tourism industry.

On the one hand, the departure of people from their home nations results in a significant loss of revenue to the economy, while on the other hand, the economic gains from the income generated by travel. There are numerous ways in which the number of international tourists departing a country and its economy can be advantageous or detrimental. When international tourism departures rise and increase, they have a detrimental effect on economic growth. The decreasing value and power of money worldwide depicts the controls and efficacy of inflation. When there is a decrease in inflation, it automatically improves the value and power of money in the local and international markets. Forgoing in view: Roncaglia de Carvalho, Ribeiro, and Marques (2018) enumerated the relationship between inflation and economic development where the tradition of economic development and inflation phenomenon is significant. It has a strong impact on economic development due to the rising commodities prices and reducing consumption of goods and services. Further, in this context: Baklouti and Boujelbene (2019) elaborated on the shadows of the economy and economic growth that are disrupted due to the rising inflation rates in developing countries.

The ultimate reduction of demand and consumption in Indonesia could be due to rising prices or increasing inflation trends. Therefore, the economic development is solely dependent on the stable prices of goods and services fortourism which contributes to more investment. However, while increasing in countries like Indonesia, inflation severely damages the economies from various ends. Meanwhile, Ghorbani Dastgerdi et al. (2018) investigated the relationship between inflation and economic sanctions, includinginvestment and trade openness. Even though higher inflation inserts suffering measures for the economy, some controls upon the inflation strengthen the economy. As a result, there are degrees of development in developing countries, and inflation results in disruption and strengthening of economic development.

In a similar vein, Cheng and Daway (2018) assessed the effect of inflation, financial integration, and domestic financial development on promoting economic development inclusivity. The rising prices of numerous items reduce the elasticity of many tourism-related projects. Therefore, when inflation is inconsistent, it significantly influences economic growth. On the other hand, when inflation rates are reduced, the impacts of a reduction in negative economic development may be beneficial. Therefore, reducing inflation rates is eminently and productively conducive to the sustainability and maintainability of economic growth.

For the past few years, some countries have been considered important destinations for investment that could uplift the chances of returns. Various surveys and businesses have been expanded worldwide, like in Indonesia. In this context: Yeboua (2021) investigated the relationship between economic growth, financial development, and foreign direct investment. This phenomenon is owing to the increasing trend of tourism, which has contributed significantly to the economic stability of nations. Tourism growth and expansion have also been viewed as a foreign direct investment by examining the ownership structures of businesses embedded in tourism destinations. In addition, Yeboua (2019) investigated the effects of foreign direct investment on economic growth by examining the empirical function of institutionalism development. Economic growth is the outcome of introducing new enterprises and expanding tourism across the globe, which attracts tourists and foreign direct investment. However, capital deficiency is essential for economic progress, and foreign direct investment cannot be eliminated.

Regarding this, Lim and Teo (2019) evaluated the economic ladder and the function of foreign direct investment in bolstering economic development. Foreign direct investment is seen as a significant and visible factor contributing to economic growth. Foreign direct investment contributes to economic growth and the expansion of prospects for small enterprises. Similarly, Huang and Liu (2019) investigated the economic development and immigrant entrepreneurship in this setting, where tourist leverage gives obvious methods. Through successful policies and the attraction of foreign direct investment, local and small firms achieve substantial growth. The proper and prominent introduction of foreign direct investment also increases the number of employment prospects. Foreign direct investment is required to develop more competitive business environments and improve economic conditions. When tourism attracts foreign direct investment, Indonesia and other developing nations raise their welfare standards. It also assists the populace in relieving poverty and low living conditions, which contribute to economic progress.

3. Methods and Material

This study examines the impact of international tourism receipts, international tourism expenditures, the number of international tourist arrivals and departures, inflation, and FDI on Indonesia's economic growth. From 1991 through 2020, the researchers retrieved secondary data from secondary sources such as WDI. The equation for the understudy constructs is as follows:

$$ED_t = \alpha_0 + \beta_1 ITR_t + \beta_2 ITE_t + \beta_3 ITA_t + \beta_4 ITD_t + \beta_5 INF_t + \beta_6 FDI_t + e_t \quad (1)$$

Where;

ED = Economic Development (GDP)
t = Time Period
ITR = International Tourism Receipts
ITE = International Tourism Expenditures
ITA = International number of Tourist Arrivals
ITD = International number of Tourist Departures
INF = Inflation
FDI = Foreign Direct Investment

The present study has used economic development as the dependent variable and measured gross domestic product (GDP) growth. In addition, tourism growth has been taken as the independent variable and measured as the international tourism receipts (% of total exports), international tourism expenditures (% of total imports), the logarithm of international number of tourist arrivals and the logarithm of international number of tour departures. Moreover, the current research also used inflation measured as the consumer price (% annual) and FDI measured as the FDI net inflows (% of GDP) as the control variables. Table 1 presents the variables and their measurement along with data sources.

Table 1: Variables with measurements

S#	Variables	Measurement	Sources
01	Economic Development	GDP growth (annual percentage)	WDI
02	International Tourism Receipt	International tourism, receipts (% of total exports)	WDI
03	International Tourism Expenditures	International tourism, expenditures (% of total imports)	WDI
04	International number of Tourist Arrivals	The logarithm of international tourism, number of arrivals	WDI
05	International number of Tourist Departures	Logarithm of international tourism, number of departures	WDI
06	Inflation	Inflation, consumer price (% annual)	WDI
07	Foreign Direct Investment	FDI net inflows (% of GDP)	WDI

Firstly, the current article has run the descriptive statistics that derived the minimum values, mean values, standard deviations, and maximum values of understudy constructs. Moreover, the article has also run the descriptive statistics according to the years. In addition, the bound test has also run to examine the co-integration, and the researchers have also applied the ADF test to check the unit root. The equation is given as under:

$$d(Y_t) = \alpha_0 + \beta t + \gamma Y_{t-1} + d(Y_t(-1)) + \varepsilon_t \quad (2)$$

The ADF test has checked the unit root of the variables individually. Hence the individual equation is given as under:

$$d(ED_t) = \alpha_0 + \beta t + \gamma ED_{t-1} + d(ED_t(-1)) + \varepsilon_t \quad (3)$$

$$d(ITR_t) = \alpha_0 + \beta t + \gamma ITR_{t-1} + d(ITR_t(-1)) + \varepsilon_t \quad (4)$$

$$d(ITE_t) = \alpha_0 + \beta t + \gamma ITE_{t-1} + d(ITE_t(-1)) + \varepsilon_t \quad (5)$$

$$d(ITA_t) = \alpha_0 + \beta t + \gamma ITA_{t-1} + d(ITA_t(-1)) + \varepsilon_t \quad (6)$$

$$d(ITD_t) = \alpha_0 + \beta t + \gamma ITD_{t-1} + d(ITD_t(-1)) + \varepsilon_t \quad (7)$$

$$d(INF_t) = \alpha_0 + \beta t + \gamma INF_{t-1} + d(INF_t(-1)) + \varepsilon_t \quad (8)$$

$$d(FDI_t) = \alpha_0 + \beta t + \gamma FDI_{t-1} + d(FDI_t(-1)) + \varepsilon_t \quad (9)$$

In addition, the present article has run the ARDL model because the ADF test exposed that some constructs are stationary at the level, and some constructs are stationary at first difference. Moreover, the ARDL model provided short and long-run results. Additionally, the ARDL model also controls the heteroscedasticity and autocorrelation effects on the model. The ARDL model equation is given as under:

$$\Delta ED_t = \alpha_0 + \sum \delta_1 \Delta ED_{t-1} + \sum \delta_2 \Delta ITR_{t-1} + \sum \delta_3 \Delta ITE_{t-1} + \sum \delta_4 \Delta LITA_{t-1} + \sum \delta_5 \Delta LITD_{t-1} + \sum \delta_6 \Delta FDI_{t-1} + \sum \delta_7 \Delta INF_{t-1} + \varphi_1 ED_{t-1} + \varphi_2 ITR_{t-1} + \varphi_3 ITE_{t-1} + \varphi_4 LITA_{t-1} + \varphi_5 LITD_{t-1} + \varphi_6 FDI_{t-1} + \varphi_7 INF_{t-1} + \varepsilon_t \quad (10)$$

The current article run quantile autoregressive distributed lag (ARDL) model to test the linkage among variables by using the quantile 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8 and 0.9. The QARDL equation is given as under:

$$Q_{EDt} = \alpha(r)_0 + \sum_{i=1}^{n1} b_i(r) ED_{t-i} + \sum_{i=0}^{n2} c_i(r) ITR_{t-i} + \sum_{i=0}^{n3} d_i(r) ITE_{t-i} + \sum_{i=0}^{n4} e_i(r) LITA_{t-i} + \sum_{i=0}^{n5} f_i(r) LITD_{t-i} + \sum_{i=0}^{n6} f_i(r) FDI_{t-i} + \sum_{i=0}^{n7} g_i(r) INF_{t-i} + \varphi_1(r) ED_{t-1} + \varphi_2(r) ITR_{t-1} + \varphi_3(r) ITE_{t-1} + \varphi_4(r) LITA_{t-1} + \varphi_5(r) LITD_{t-1} + \varphi_6(r) FDI_{t-1} + \varphi_7(r) INF_{t-1} + \varepsilon_t \quad (11)$$

Finally, the article examined the stability of the model using CUSUM and CUSUMQ tests and adjusted the R squared for checking the model goodness of fit.

4. Research Findings

The article has run the descriptive statistics that derived the minimum values, mean values, standard deviations, and maximum values of understudy constructs. For example,he mean value of ED was 4.633%, while the average value of ITR was 5.057%. In addition, the mean value of ITE was 5.359%, and the average value of ITA was 6918738 persons. Moreover, the mean value of ITD was 4350599 individuals, while the average value of INF was 9.054%, and the FDI was 1.260%. Table 2 presents the descriptive statistics.

Moreover, the article has also run the descriptive statistics according to the years. The results indicated that the minimum value of ED was -13.127 in 1998, and the maximum value of EDwas 8.220 in 1995. In addition, the findings also revealed that the lowest value of ITR was 1.981% in 2020, while the highest value of ITR was 9.198% in 2019.

Table 2: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ED	30	4.633	3.875	-13.127	8.220
ITR	30	5.057	1.889	1.981	9.198
ITE	30	5.359	1.508	1.239	9.568
ITA	30	6918738.1	3446292.3	4053000	16107000
ITD	30	4350599.1	3373777.5	4874.788	11689000
INF	30	9.054	10.071	1.921	58.451
FDI	30	1.260	1.397	-2.757	2.916

Moreover, the results also indicated that the minimum value of ITE was 1.239 in 2020, and the maximum value of ITE was 9.568 in 2002. In addition, the findings also revealed that the lowest value of ITA was 4053000 tourists in 2020, while the highest value of ITA was 16107000 tourists in 2019. Furthermore, the results also indicated that the minimum value of ITD was 4874.788 tourists in 1991, while the highest value of ITD was 11689000 tourists in 2019. In addition, the findings also revealed that the lowest value of INF was 1.921% in 2020, while the highest value of INF was 58.451% in 1998. Finally, the findings also revealed that the lowest value of FDI was -2.757% in 2000, while the highest value of FDI was 2.916% in 2005. Table 3 presents these outcomes.

Table 3: Descriptive statistics by years

	ED	ITR	ITE	ITA	ITD	INF	FDI
1991	6.912	2.753	3.889	4348071.4	4874.788	9.419	1.271
1992	6.498	2.909	3.990	4422714.3	4977.52	7.524	1.388
1993	6.496	3.065	4.091	4497357.1	5080.251	9.672	1.268
1994	7.540	3.221	4.191	4572000	5182.983	8.532	1.192
1995	8.220	3.377	4.292	4324000	5285.714	9.420	2.150
1996	7.818	3.533	4.393	5034000	440928.57	7.973	2.724
1997	4.700	3.690	4.493	5185000	876571.43	6.226	2.168
1998	-13.127	3.846	4.594	4606000	1312214.3	58.451	-0.252
1999	0.791	4.002	4.695	4728000	1747857.1	20.478	-1.333
2000	4.920	4.158	4.795	5064000	2205000	3.689	-2.757
2001	3.643	4.314	4.896	5153000	2505000	11.500	-1.856
2002	4.499	8.806	9.568	5033000	3231000	11.900	0.074
2003	4.780	6.428	7.774	4467000	3478000	6.757	-0.254
2004	5.031	6.631	6.772	5321000	3941000	6.064	0.738
2005	5.693	5.380	5.494	5002000	4106000	10.453	2.916
2006	5.501	4.553	6.230	4871000	4967000	13.109	1.348
2007	6.345	4.769	6.490	5506000	5158000	6.407	1.603
2008	6.014	5.580	6.465	6234000	5486000	10.227	1.826
2009	4.629	4.830	6.634	6324000	5053000	4.386	0.904
2010	6.224	4.572	5.798	7003000	6235000	5.134	2.025
2011	6.170	4.243	4.579	7650000	6750000	5.356	2.303
2012	6.030	4.485	4.253	8044000	7454000	4.279	2.310
2013	5.557	5.025	4.866	8802000	8025000	6.413	2.551
2014	5.007	5.818	5.084	9435000	8074000	6.395	2.820
2015	4.876	7.035	5.904	10407000	8176000	6.363	2.298
2016	5.033	7.489	6.225	11519000	8340000	3.526	0.487
2017	5.070	7.564	5.988	14040000	8856000	3.809	2.019
2018	5.174	8.453	6.024	15810000	9468000	3.198	1.814
2019	5.018	9.198	7.075	16107000	11689000	3.031	2.233
2020	-2.070	1.981	1.239	4053000	2918000	1.921	1.807

Moreover, the current article examines the directional linkage with the correlation matrix. The results revealed that international tourism receipts, international tourism expenditures, international number of tourist arrivals and international number of tourist departures, inflation, and FDI have a positive linkage with economic growth in Indonesia. Table 4 presents correlation matrix results. The researchers have also applied the ADF test to check the unit root. The results revealed that the ED, ITR, ITE, and INF have no unit root. In addition, the results also exposed that the LITA, LITD, and FDI have no unit root at first difference. Table 5 presents unit root results.

In addition, the bound test has also run to examine the co-integration, and the findings exposed that the calculated f-statistics value of 5.929 is larger than their critical values at a five percent significance level. The results exposed that co-integration exists. Table 6 presents these findings. The results of QARDL revealed that international tourism receipts, international tourism expenditures, international number of tourist arrivals and international number of tourist departures, inflation, and FDI have a positive linkage with economic growth in Indonesia. The results also indicated that ITR significantly impacts ED in quantile 1 to 9 in the short-run and quantile 1 to 4 and 6 to 7 in the long run. In addition, the results also indicated that ITE has a significant impact on ED in quantile 1 to 9 in the short-run and quantile 1 to 9 in the long run. Moreover, the findings also revealed that LITA has a significant impact on ED in quantile 1 to 4 and 6 to 8 in the short-run and quantile 1 to 9 in the long run.

The results also indicated that LITD significantly impacts ED in quantile 1 to 5 and 9 in the short-run and quantile 1 to 9 in the long run. Furthermore, the outcomes also exposed that INF has a significant impact on ED in quantile 1 to 2 and4 to 7 in the short-run and quantile 1 to 2, 4 to 6, and 8 in the long run. Finally, the results also indicated that FDI has a significant impact on ED in quantile 1 to 2, 5 and 8 to 9 in the short-run and quantile 1 and 3 to 8 in the long run. Finally, the CUSUM and CUSUM square indicated that the model is stable, and the R square value indicates that the 53% of changes are due to all the predictors used in the study. Table 7 and Figure 2 present these outcomes.

Table 4: Matrix of correlations

Variables	ED	ITR	ITE	INF	FDI	LITA	LITD
ED	1.000						
ITR	0.100	1.000					
ITE	0.173	0.404	1.000				
INF	0.408	-0.194	-0.060	1.000			
FDI	0.338	0.057	-0.127	-0.303	1.000		
LITA	0.144	0.732	0.308	-0.321	0.344	1.000	
LITD	0.199	0.601	0.445	-0.106	0.028	0.559	1.000

Table 5: Unit root test

Augmented Dickey-Fuller Test (ADF)	Level	t-statistics	p-values
ED	I (0)	-3.720	0.007
ITR	I (0)	-3.882	0.005
ITE	I (0)	-2.291	0.027
LITA	I (1)	-5.109	0.000
LITD	I (1)	6.810	0.000
INF	I (0)	-2.439	0.017
FDI	I (1)	-6.100	0.000

Table 6: ARDL bound test

Model	F-statistics	Lag	Level of Significance	Bound test critical values	
				I (0)	I (1)
ED/ (ITR, ITE, LITA, LITD, INF, FDI)	5.929	4	1%	6.432	6.982
			5%	5.009`	5.607
			10%	4.100	4.699

Table 7: QARDL model

	ITR	ITE	LITA	LITD	INF	FDI
Panel A: Short-run Coefficients						
Q0.1	0.64*	0.51*	0.62***	0.31*	0.29**	0.43**
Q0.2	0.29*	0.92***	0.10**	0.61*	0.82***	0.20*
Q0.3	0.49*	0.29*	0.38*	0.30*	0.10	0.33
Q0.4	0.07*	0.10*	0.62***	0.37*	0.33*	0.31
Q0.5	0.60**	0.25*	0.28	0.82***	0.28*	0.42**
Q0.6	0.21*	0.31**	0.47*	0.18	0.44**	0.10
Q0.7	0.93***	0.74*	0.55**	0.11	0.78**	0.20
Q0.8	0.20*	0.58*	0.63***	0.28	0.19	0.21*
Q0.9	0.23	0.52	0.20	0.27**	0.21	0.33**
Panel B: Long-run Coefficients						
Q0.1	0.37*	0.28*	0.34**	0.34**	0.32*	0.43*
Q0.2	0.29*	0.43*	0.82***	0.62**	0.33*	0.10
Q0.3	0.72**	0.52**	0.34*	0.29*	0.10	0.42*
Q0.4	0.52*	0.20*	0.54*	0.54**	0.92***	0.38*
Q0.5	0.10	0.21*	0.63**	0.29**	0.30*	0.87**
Q0.6	0.29*	0.56**	0.29*	0.61*	0.31*	0.37*
Q0.7	0.72**	0.63**	0.52**	0.73**	0.10	0.28*
Q0.8	0.09	0.39*	0.43*	0.29*	0.32*	0.19
Q0.9	0.10	0.32	0.09	0.21	0.10	0.12
Panel C: Diagnostics						
Ad. R square	0.53					
CUSUM	S					

CUSUMQ	S					

*,** and *** denote the rejection of the null hypothesis at 10%, 5%, and 1% significance levels

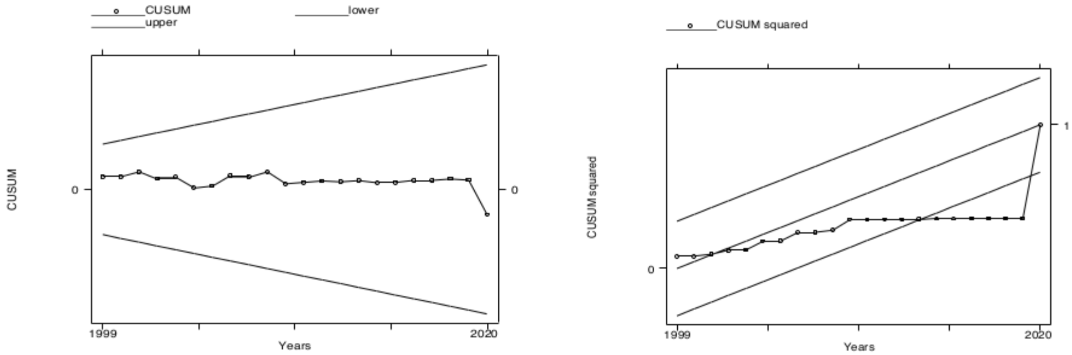

Figure 2: CUSUM and CUSUM Square

5. Discussions and Implications

According to the findings, foreign tourism receipts positively affect economic growth. These results concur with Wu and Wu (2018), who found that the receipts from international tourism through the sale of international tourism tickets, the provision of tourism services to tourists, and the sale of various domestic items during the tourism season increase the financial resources of tourism firms and other economic sectors linked to tourism. These financial resources boost their ability for investment. As a result, economic activity expands, and the country's annual output rises. Furthermore, these findings are consistent with Kyrylov, Hranovska, Boiko, Kwilinski, and Boiko (2020) conclusion that conducting international tours increases tourism funds and enables tourism companies to improve tourism facilities by applying innovation technologies, developing employee specializations, and utilizing quality resources. As a result of international tourism revenues, these measures increase the productivity of products and services and add value to them. Thus, economic development in technological developments, improvements in human resources, and higher quality production rise.

The results demonstrated a positive relationship between foreign tourism spending and economic growth. These findings concur with Zhang and Liu (2019) examination of tourism's effects on the country's economic growth. The study suggests that international tourism necessitates upgraded transit infrastructure, well-appointed buildings for lodging, restaurants, and shopping complexes for the convenience of international travelers. When expenditures are made for international tourist practices, they contribute in multiple ways to economic growth. These findings align with those of Sokhanvar et al. (2018), who focused on the effects of foreign tourism on the country's economic development. This study demonstrates that spending on purchasing tourism products and diversifying tourism services for international tourists increases output in nearly all economic sectors. The increase in investment and productivity boosts GDP growth and enhances economic development.

According to the findings, international visitor arrivalspositively correlate with economic growth. These findings are consistent with Manzoor, Wei, Asif, Haq, and Rehman (2019) examination of the contribution of foreign tourism to economicdevelopment. When tourism corporations successfully attract more international travelers for tourism activities and visits totourist places, they gain foreign currency and provide the government with an opportunity to produce tax money from international tourists. The foreign currency raised can be usedto stimulate domestic development projects. In addition, manysectors of the economy engage in more active business practices due to the expansion of developmental activities. These techniques enhance both productivity and employment prospects. Therefore, international tourist arrivals contribute to economic growth within the country. According to Ruault (2018), when many international tourists arrive in a country to visit historical buildings and cultural sites and engage in leisure activities, they bring foreign currency with them and spend a great deal of money within the country. Any revenue generated from international tourists adds to the economy and helps advance its degree of development. Therefore, increasing the number of international tourists ensures economic growth.

According to the findings, international tourist departures positively affect economic growth. These findings are consistent with Ren et al. (2019), who note that people who have a strong financial position within the country and can afford international travel transfer a portion of their incomes to the tourism firms and government, who then invest in economic practices and contribute to the growth of the country when they prepare for international travel and purchase packages. These findings are also supported by Fu, Ridderstaat, and Jia (2020). They found that when citizens wish to visit historical sites and engage in recreational activities outside the country's borders, they require, in addition to the purchase of a package, accessories for the journey, accommodation, and enjoyment of the recreational activities to the fullest extent. They go shopping and make preparations before their trip. In this regard, the marketing of domestic goods and services expands, which ultimately stimulates economic activity, raises the country's overall production level and contributes to achieving rapid economic growth.

According to the findings, inflation has a positive relationship with economic growth. These results concur with Mishra (2020) assertion that money is abundant in circulation during an inflationary economic period. Despite the high cost of living, the government can implement its developmental and constructive programs for the public's welfare. On the one hand, the increasing demand for resources (physical, technological, and human resources) provides relevant businesses with the possibility to increase productivity and job possibilities. On the other hand, the development is anticipated to create new economic opportunities. Therefore, inflation functions as an economic stimulant and promotes economic growth. According to the findings, FDI has a favorable relationship with economic development. These findings concur with Ahmad, Draz, and Yang (2018). They demonstrate that when the government provides support to improve relations with foreigners and attract foreign investment, the financial resources to be applied to economic practices increase production within the country and boost international marketing to produce high-quality goods. Therefore, an increase in FDI promotes a country's economic progress.

Due to its contributions to the body of knowledge, the current work has substantial theoretical relevance. It investigates the effects of international tourism receipts, international tourism expenditures, international tourist arrivals, the number of international tourist departures, inflation, and FDI on economic development. Prior research examined the importance of international tourism in economic growth, but the studies focused on international tourism earnings and expenditures or the international number of visitor arrivals and departures to determine their effects on economic development. This study contributes to the literature by shedding light on international tourism earnings, international tourism expenditures, international tourist arrivals, and international tourist departures for economic development. Moreover, despite having a leading tourist system, little research has been conducted to examine the impact of tourism expansion on economic development in Indonesia. Therefore, the present study analyzing Indonesia's tourism growth and economic development is special. This study's research on tourism growth and economic development is important for Indonesia and other leading economies that provide tourism services or wish to establish an effective tourism system without impeding economic progress. This report provides policymakers with guidelines for developing tourism-based economic growth programs. This study suggests that policies that stimulate and better manage international tourism earnings, expenditures, international tourist arrivals, and departures can hasten the country's economic development. The study also implies that economic development can be enhanced if effectively managed inflation and FDI.

6. Conclusions and Limitations

The authors intended to examine the effects of international tourism receipts, international tourism expenditures, international tourist arrivals, and international tourist departures on economic development and the influence of inflation and foreign direct investment in economic development. Using quantitative research methodology, data on the Indonesian economy's international tourism receipts, international tourism expenditures, international number of tourist arrivals, international number of tourist departures, inflation, and FDI and their effect on economic development were collected. The data analysis reveals a positive relationship between international tourism receipts, international tourism expenditures, the number of international tourist arrivals, international tourist departures, inflation, FDI, and economic development. According to the findings, the proceeds from foreign tourism through the sale of tickets, tourism services, and various domestic goods increase the financial resources in the economy, hence boosting economic investment and promoting the country's economic growth. Similarly, the growth in international tourism expenditures encourages all economic activities associated with the tourism industry, boosting the nation's gross domestic product. The results indicated that an increase in the number of foreign tourists increases the country's financial resources and stimulates economic activity, which contributes to the country's economic growth. Similarly, an increase in foreign visitor departures boosts inland trading, transportation, and industrial operations, ultimately leading to economic growth. The study indicates that the rise in inflation and FDI contributes to the country's tourism expansion and economic growth.

The present still carries some limitations. These limitations must be addressed and tried to be removed in other literature. This study examines only the tourism growth role and inflation and FDI in the country's economic development. Economic development is a broad concept, and it can also be affected by financial resources, capital formation, and human capital improvement. The authors must pay attention to these factors for analyzing economic development. In addition, the study collected data from a single economy of Indonesia with specific characteristics and presented its findings. In future literature, it is required that the results regarding the tourism growth and economic development relation must be based on the data from multiple countries.

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