

# Tourism Impact the Economic Growth of ASEAN Countries. Lesson Learned for Post-Pandemic Covid-19 Recovery

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## Abstract

The COVID-19 pandemic has had the greatest impact on the travel and tourism industry. ASEAN, which is one of the most visited regions, has seen a significant drop in visitors. This study examined the performance of tourism contribution to Gross Domestic Product (GDP) in ASEAN countries to learn about economic recovery after a pandemic using tourism indicators such as tourist arrival, tourism receipt, tourist expenditure, and exchange rate of nine out of ten ASEAN countries: Indonesia, Singapore, Malaysia, Myanmar, The Philippines, Vietnam, Lao PDR, Myanmar. A quantitative method based on secondary data from 2009 to 2018. The World Bank, the Central Bureau of Statistics, the Census and Economic Information Centre (CEIC), and Statista provided the data for this study. To test the hypotheses, data were analyzed using a Multiple Regression Model. The result shows tourism receipts and tourist expenditure have a significant positive effect, whereas tourist arrivals have a significant negative effect, and the exchange rate has no significant effect on GDP. The result also shows all variables contribute to 72.9 percent of GDP in ASEAN countries. Tourist expenditure was discovered to be the most important variable among all variables. As a result, the governments of ASEAN countries should pay more attention to tourist spending and attract higher spenders.

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*Keywords:* Exchange Rate; Gross Domestic Product; Tourism; Tourist Arrival; Tourism Receipt; Touris Expenditure

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## 1. Introduction

Tourism has become one of ASEAN's fastest-growing industries, and it has held up well in the face of global economic challenges. In 2011, 81 million tourists visited ASEAN, up from 62 million in 2007 (Invest ASEAN, 2021). A report made by World Travel & Tourism Contribution (WTTC) Economic Impact in 2019, Southeast Asia contribute \$380 Billion to their GDP which is sit in 4th ranked of world region. The total economic GDP they got is 12.1% and grow 4.6% GDP from Travel and Tourism sector. Within the ASEAN

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region, the tourism sector is included in the twelve priority sectors for liberalization to achieve the 2015 ASEAN Economic Community (AEC).

For ASEAN countries, tourism is one of the driving forces economies for the community, the development of tourism will encourage various production activities and increase people's income. The tourism sector is one of five service sectors included in the liberalization priority by the opening of the service sector and sub-sector by removing barriers to market access and applying national treatment. The governments of ASEAN countries also agreed to facilitate connectivity between ASEAN countries. This agreement was formulated through the ASEAN framework agreement for the visa exemption program which allows for leniency in visa requirements for ASEAN (ASEAN, 2012).

Unfortunately, it cannot be denied that Corona Virus disease or COVID-19 had arrived all over the world and many facets have been affected. Travel and tourism, as well as retail and other service industries, have been impacted, business processes and supply chains have been disrupted, jobs and livelihoods have been impeded, and consumer trust has plummeted. Those important keys to increasing the economic growth of a country all collapsed (ASEAN, 2020). Travel and tourism are the most-hit key sector in this pandemic. ASEAN is one of the most visited regions, the pandemic had dropped the travel and tourism sector drastically. A result of lockdowns, population quarantines, stay-at-home orders, temporary business closures, and travel restrictions or prohibitions placed by many countries has triggered immediate disruptions in economic activities throughout the country (ASEAN, 2020).

In 2020, tourist arrival in Asia and the Pacific drastically dropped from April until December at the end of 2020. International tourism and its closely linked sectors suffered an estimated loss of \$2.4 trillion in 2020 due to the direct and indirect impacts of a steep drop in international tourist arrivals (UNWTO, 2021). Last, the pandemic's uncertainty caused a rapid outflow of capital in ASEAN, triggering a drop in stock markets and a rapid depreciation of exchange rates across the country (ASEAN, 2020).

Given the pandemic's reach and effect, ASEAN recognizes that responding to the crisis would necessitate concerted actions not only within the region but also with its partners. If resolving the pandemic is the region's immediate priority, ASEAN must also consider its collective and long-term socio-economic recovery strategy (ASEAN, 2020). Since the pandemic is still emerging, the recovery plan should be pragmatic and all-encompassing (whole-of-community), versatile and adaptive so that the region can rapidly respond to changing circumstances. An important stage to recover tourism by increasing or fixing tourism indicators that dropped since COVID-19 attacked (ASEAN, 2021). In ASEAN countries, the GDP can be predicted by understanding the tourism indicator. Tourism has few indicators such as Tourist arrival, Tourism receipt, Tourist expenditure, and Exchange rate (Baggio, 2019; Dupeyars & MacCallum, 2013). Tourism indicators such as Tourist arrival, Tourism receipt, Exchange rate, also Tourist expenditure are studied by previous researchers to measure the growth of tourism and GDP of a country (Holik, 2016; Aleemi & Qureeshi, 2015; Rodrik, 2008).

The Gross Domestic Product (GDP) is the most dynamic and influential macroeconomic measure, most reliably representing the results obtained over one year (Anghelache et al, 2020). GDP is one of the most key metrics used to track a country's economy because it represents the monetary value of all finished goods and services within the country. The GDP of a nation is calculated using a variety of economic variables, as well as consumption and expenditure (Doreen, 2020). Many economists are interested in the tourism-led growth (TLG) hypothesis because the tourism sector can contribute to economic growth both directly and indirectly through GDP (Khan et al., 2020).

Tourist arrival and tourism receipt are variables that use by the previous researcher to measure the relation with GDP (Holik, 2016). Fernández-Tabales et al (2017) used tourism indicators such as tourist expenditure, employment, capital investment, and foreign exchange to measure the influence of tourism growth on economic development. According a study conducted by Purwomarwanto & Ramachandran (2015) used

tourism indicators as the independent variables such as exchange rate, tourist arrival, type of country, interaction, and also the length of stay, while GDP as its dependent variables to measure the performance of tourism sector towards global crisis. As explained above, many previous researchers conducted a study discussed the relation between tourism and GDP various factors. With the number of international visitors coming, the tourism sector will directly contribute to foreign exchange. The development process runs more smoothly as foreign exchange reserves expand (Holik, 2016). Tourism could indirectly generate a large number of job openings. According to a study conducted in Spain, tourist spending has an impact on local economic production and job growth (Capó and Valle, 2008). As explained above, many previous researchers conducted a study discussed the relation between tourism and GDP various factors. Previous studies were lack of research that recommend tourism recovery after the pandemic crisis, specifically the Covid-19 pandemic. Therefore, this study will fill the gap by analyzing the relation of the tourism sector with gross domestic product in four ways which are tourist arrival, tourism receipt, tourist expenditure, and exchange rate. This study will focus on analyzing nine out of ten ASEAN countries from the period 2009-2018.

## **2. Hypotheses Development**

### *2.1. Tourist arrival and GDP*

The relationship between economic growth and tourism found that tourist arrival is indicated as one indicator that had a positive impact on economic growth through economic activity (Holik, 2016). Selimi et al (2017) also found tourist arrival as a good indicator that impacts the economic growth by increasing the GDP of countries. Based on the theoretical review and this is hypotheses that have been made relating to the topic of this research:

H1: There is a significant effect of tourist arrival on the Gross Domestic Product of ASEAN countries.

### *2.2. Tourism receipt and GDP*

Tourism receipts are statistically relevant with the predicted positive sign, suggesting that on average, tourism receipts contribute to economic growth positively (Aleemi, 2015). Additionally, Selimi et al., (2017) using the Hausman Taylor IV model reveals that tourism and economic growth had a strong positive link. The relation is significantly positive with the independent variables which one of which is tourism receipt. In addition, a result of research by Holik (2016) showed that Tourism receipts have a positive impact on five ASEAN countries (Indonesia, Malaysia, Singapore, Thailand, and the Philippines). The hypothesis follows:

H2: There is a significant effect of tourism receipt on the Gross Domestic Product of ASEAN countries.

### *2.3. Tourist Expenditure and GDP*

Tourist expenditure is one of the tourism indicators that have a positive influence on Gross Domestic Product which is related to economic growth (Fernández-Tabales, 2017). Tourist expenditure also showed a significant effect on foreign exchange earnings which lead to economic growth (Ramdhani et al, 2017). Thus, the hypothesis is:

H3: There is a significant effect of tourist expenditure on the Gross Domestic Product of ASEAN countries.

#### 2.4. Exchange rate and GDP

Lubis et al (2017) studied the relationship between Exchange rate and GDP revealed that exchange rate depreciation affects GDP positively. Rodrik (2008) found that managing the real exchange rate is important for economic growth and that undervaluation of the currencies (a high real exchange rate) boosts economic growth in developing countries by generating economic activity that leads to increased productivity and employment. Using data from ten African countries from 1996 to 2010, Abbas et al (2012) looked at the relationship between GDP, inflation, and the real interest rate with the exchange rate. Based on the theoretical review and theoretical framework, these are hypotheses that have been made relating to the topic of this research:

H4: There is a significant effect of the exchange rate on the Gross Domestic Product of ASEAN countries.

#### 2.5. Tourist arrival, tourism receipt, tourist expenditure, and exchange rate towards GDP

There is a significant effect between tourism and economic growth (Selimi et al., 2017). This research uses four independent variables to measure the relation between the tourism sector and economic growth through GDP. Tourist arrival is one of the tourism indicators that has been studied by previous researchers which had a positive impact on economic growth (Holik, 2016; Selimi et al., 2017; Purwomarwanto & Ramachandran, 2015). Tourism receipt is the other independent variable in this research that has been studied by Aleemi (2015) which indicates had a positive significant impact on economic growth in Pakistan. Tourist expenditure was used as one of the variables and indicates that it influenced economic development. The exchange rate was used by the previous researcher as a variable to determine the relationship between the tourism sector and economic growth. It indicates that the exchange rate had a significant impact on economic growth (Fraz, 2016; Purwomarwanto & Ramachandran, 2015; Rodrik, (2008); Bayraktar et al., 2016). Based on the theoretical review and theoretical framework, these are hypotheses that have been made relating to the topic of this research:

H5: There is a simultaneous significant effect of tourist arrival, tourism receipt, tourist expenditure, and exchange rate on the Gross Domestic Product of ASEAN countries.

### 3. Research Methods

This research uses quantitative research methods which focus on calculating data input to obtain output (Cooper & Schindler, 2012). The data used in this study is panel data which means a combination of times series and cross-section. In quantitative methods, there are several hypothesis tests. Statistical Packages for Social Sciences (SPSS) are useful for processing data that will be used to complete research results. The researcher will be using SPSS as a statistical method to support the Analysis, which is SPSS version 25.0. The population for the study is tourism contributions comprised of the exchange rate, tourist arrivals, tourist receipts, length of stay, and tourist expenditure of nine ASEAN countries during 2008 – 2019 with a total of 90 samples. This study uses secondary data which is primary data that has been processed by primary data collectors. This study uses data processed by the World Bank, Centre Bureau of Statistic Indonesia, and CEIC Data. Data analysis methods testing inferential statistics such as descriptive analysis, classical assumption tests, coefficient of determination (R<sup>2</sup>), multiple regression analysis, and hypothesis test. The study will also use the T-Test and F-Test to test the hypothesis. A significant value of the regression analysis equation is  $\leq 0.05$  to accept the hypotheses.

Multiple regression analysis examined the relationship between one continuous dependent variable and two or more independent variables. The formula uses as following:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where,

Y: GDP

$\beta_0$ : Coefficient beta value

$\beta_1$ : The coefficient value of Tourist Arrival

$\beta_2$ : The coefficient value of Tourism Receipt

$\beta_3$ : The coefficient value of Tourist Expenditure

$\beta_4$ : The coefficient value of Exchange Rate

X1: Tourist Arrival

X2: Tourism Receipt

X3: Tourist Expenditure

X4: Exchange Rate

$\epsilon$  : Random Error

To evaluate the effect of independent variables on the dependent variable, the multiple regression equation in this analysis will be determined using standardize coefficient values due to the unit in each variable is different (Cooper & Schindler, 2012).

#### 4. Results and Discussion

The research uses descriptive graphics to show the total data minimum, maximum, mean, and standard deviation of each variable that is tourist arrival in thousand (,000) people, tourism receipt in million dollars (US\$), tourist expenditure in million dollars (US\$), exchange rate in dollars (US\$) and Gross Domestic Product (GDP) in billion dollars (US\$) in Table 1.

Table 1. Descriptive Statistic of Variables

	Minimum	Maximum	Mean	Std. Deviation
Tourist Arrival	763.00	27,437.00	9,593.38	7,266.38
Tourism Receipt	\$75.00	\$65,242.00	\$11,902.88	\$13,102.85
Tourist Expenditure	\$91.00	\$25,547.00	\$7,417.02	\$7,181.74
Exchange Rate	\$0.000044	\$0.800207	\$0.127150	\$0.2405549
GDP	\$5.83	\$1,043.00	\$273.17	\$257.33
Valid N (listwise) 90				

The descriptive study outcome for this analysis is shown in Table 1 contains one dependent variable and four independent variables with a sample size of 90. The overview is as follows:

1. Tourist Arrival is represented as one independent variable in this research. The mean value of tourist arrival is 9,593.38 thousand with a standard deviation of 7,266.38 thousand. The minimum value for tourist arrival in the ASEAN region is 763,000 people which is from Myanmar in 2009 and the maximum value is 27,437,000 which is from Malaysia in 2014.
2. The next independent variable is tourism receipt, with a mean value of \$11,902.88 million and a standard deviation of \$13,102.85 million. While the minimum value of tourism receipt is \$75 million from Myanmar country in the year 2009 and the maximum value of tourism receipt is \$65,242 million from Thailand in 2018.

3. Another independent variable in this research is tourist expenditure, with a mean value of \$7,417 million and a standard deviation of \$13,102.85 million. The minimum value of tourist expenditure is \$91 million from Lao PDR in 2009 while the maximum value is \$25,547 million from Singapore 2014.
4. The exchange rate is also an independent variable of this research, with a mean value of \$0.127150 and a standard deviation of \$0.2405549. The minimum value of the exchange rate is \$0.00004 from Vietnam in 2018 and the maximum is \$0.800207 from Singapore in 2012.
5. Gross Domestic Product (GDP) is dependent variable use in this research, with a mean value of \$273.17 billion and a standard deviation of \$257.33 billion. The minimum value of GDP is \$5.83 billion from Lao PDR in 2009 and the maximum value is \$1,043 billion from Indonesia in 2018.

The classical assumption test was done by testing normality test, multicollinearity test, and heteroscedasticity. This study indicates that the distributed shaped bell-shaped, which expressed that the regression model during this analysis meets the idea of normality. For multicollinearity, the results test, all the independent variables show that all the VIF values are bigger than 1 and less than 10. Last, Scatterplot shows that the plots are not exactly formed and that the plot was in a pretty spread pattern indicating that there is no disturbance or Heteroscedasticity of each regression model variable. The next step is the multiple regression equation based on Table 2.

Table 2. Multiple Regression Result

Dependent variable	Gross Domestic Product			
Independent variables	Tourist arrival			
	Tourism receipt			
	Tourist expenditure			
	Exchange rate			
Multiple R	0.861			
R <sup>2</sup>	0.742			
Adjusted R <sup>2</sup>	0.729			
F	60.970	Sig.		0.000
N	90			
Model	<i>b</i>	Beta	t	Sig.
Constant	4.873		6.810	.000
Tourist arrival	-.753	-.448	-3.325	.001
Tourism receipt	.637	.661	4.593	.000
Tourist expenditure	.543	.659	6.002	.000
Exchange rate	-.023	-.057	-.899	.372

The multiple regression standardized coefficients as below:

$$GDP = 0 -.448 \text{ Tourist Arrival} + .661 \text{ Tourist Receipt} + .659 \text{ Tourist Expenditure} - .057 \text{ Exchange Rate}$$

Based on the results of multiple regression above, three out of four hypotheses were approved to be a partially significant effect on GDP except for variable exchange rate with the significant value of  $\leq 0.05$ . The simultaneous significant effect of tourist arrival, tourism receipt, tourist expenditure, and exchange rate on

Gross Domestic Product of ASEAN countries is .000 was approved the fifth hypothesis. Coefficient of Determination (R<sup>2</sup>) shows that the value of adjusted R square is .729 or 72.9% of GDP of nine ASEAN countries from 2009-2018 effect by tourist arrival, tourism receipt, tourist expenditure, and exchange rate.

The result of tourist arrival shows that the tourist arrival has a negative significant effect on nine ASEAN countries' GDP. Where the more tourist arrival unit in countries the more GDP will decrease. It shows that ASEAN's GDP cannot depend on tourist arrival as one of the tourism indicators. It may be influenced by various factors, such as overtourism that happen in several countries in Europe and Asia (Darmawan, 2019). Overtourism refers to a destination where hosts or guests, locals or tourists, believe there are too many visitors and that the area's or experience's quality of life has deteriorated unacceptably. Overtourism caused some negative effects on a country that lead to affect economic growth and tourism sustainability (UNWTO, 2018). One of the examples in the Middle Otago deplore the over-demand for public infrastructure and the impact of dumping waste from tourists who camp out freely, which caused government spending to increase (Scheyvens, 2019). A study conducted by Navarro-Díaz et al., (2020) also stated that measuring a tourism destination's performance in terms of increased tourist arrival is ineffective and can lead to serious problems with tourism flow management. So, this research concludes that tourist arrival gives a significant negative effect on ASEAN countries' GDP.

The increase in the tourism income revenue will significantly increase gross regional domestic product as well as if tourism income revenue decrease, the gross regional domestic product will also significantly decrease. This result is in line with the research conducted by Abirawa, et al., (2019) and Holik (2016) stated that tourism receipt has a significant effect on the GDP of a country. Tourist expenditure is also one of the independent variables in this research that have a significant effect on ASEAN countries' GDP. Tourist expenditure may be affected by various factors, such as during the vacation season, most countries begin to market their potentials to entice visitors to benefit from their spending, thus contributing significantly to the growth of their economies and helping small local enterprises, all of which contribute to the economic development process which in line with Zurub et al. (2015). Moreover, tourist expenditure has the highest t value which is 6.002, which means that tourist expenditure is the highest contributor to GDP in ASEAN countries. It may be recommended that the strategic objective of ASEAN countries for recovery is the amount spent by tourists (Navarro-Díaz et al., 2020). Expanding tourism package and create innovation to make tourists stay longer are several ways that can be used to increase tourist expenditure (Rahmiati & Misnawati, 2020).

The variable of the exchange rate has a significant value higher than 0.05 which concludes that the exchange rate has a negative and not significant effect on ASEAN countries' GDP. This research is contradicted with studies by Holik (2016), Fraz (2016), Purwomarwanto & Ramachandran (2015), and Bayraktar et al. (2016). It may cause by several negative side effects of exchange rate toward GDP in the context of tourism. When a country's exchange rate is high, the GDP of the country will usually follow affects the foreign tourist to visit a country with a high exchange rate. A fascinating study in the impact of exchange rates, since 2012, the exchange rates of China and Japan have diverged dramatically. When looking at the movement of Travel and Tourism between the two nations, the effect of this change is most obvious. Since 2013, the number of Chinese tourists visiting Japan has increased, while the number of Japanese tourists visiting China has decreased year after year since 2012 (WTTC, 2016). This will cause the GDP of the country will not to be able to benefit more from the tourism sector. Meanwhile, a country with a lower exchange will be more appealing to foreign tourists, because of the lower cost of the products and overall cost. However, several social problems could occur such as overtourism which often caused some conflicts with the local populace, damages on the property, and others. Bali, Indonesia is one of the examples affected by overtourism. Infrastructure, wastes, and clean water are several impacts from overtourism that cost government spending more to fix it (Smith, 2018).

The simultaneous effect of all independent variables has significant and contributes as much as 72.9% towards ASEAN countries GDP. Through tourism indicator country's revenue can be made which mean ASEAN economic can positively be boosted.

## 5. Conclusion

The result of the analysis shows all the independent variables in this research contribute 72.9% to GDP in ASEAN countries. So, the ASEAN countries could use tourism as one strategy to boost economic recovery. According to the result, the most relevant effect variable towards ASEAN countries' GDP is tourist expenditure because its t-values ranked highest among all variables. It suggests that each country of the ASEAN region put more attention to tourist expenditure because it shows a strong relationship with the GDP which represents the economic growth. However, the exchange rate shows a negative and not significant effect on GDP.

To boost economic recovery after the pandemic crisis, this study recommends the tourism industry should increase the revenue of the tourism sector according to the tourist expenditure.

One way by creating a tourism package, such as provide a 7 days 6 nights tour package in several nearest countries or called cross border tourism. A cross-border region can benefit from cooperation – cooperation can help create greater diversity and differentiation of the range of tourism and environmental products; create economies of scale and make promotion more effective and can help better address specific problems or issues for tourism development (Livandovschi, 2017). Therefore, ASEAN countries can benefit from the tour package not only for a specific country.

Additionally, the government of ASEAN Member States (AMS) needs to highly pay attention to the focus strengthen the regulation for health protocol in each country. The governments also could try to develop infection prevention and control standards for tourism professionals, their workplaces, and the public to faster reducing the virus from spreading. Also, promote tourism of each country to the others by considering more about security and safety threat, such as terrorism. Governments could share information about confidential security with other countries also border protection and vetting suspicious people entering their country to reduce the chance of insurgents entering. Expand the airline outreach could be one of the important recommendations. The presence of more airlines in a country indicates that more passengers will visit that country. Airline alliances enable them to share passengers. Tourism is not limited to airlines, it also includes cruise ships.

For future research, an indicator of Gross National Happiness (GNH) which means a holistic and sustainable approach to development as the variables that attract tourism differently, is still rarely studied. It was released by The Centre for Bhutan Studies on 26 November 2008. The evolution of GNH shows that some main GNH schemes have been incorporated into Bhutan's Five-Year Plans, which have aided the country's economic development (Balasubramanian & Cashin, 2019).

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