



## Analysis of the Quality of Foreign Tourists to Indonesia

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### Abstract

**Purpose:** This research aims to analyze the quality and characteristics of foreign tourists to Indonesia. **Research design, data and methodology:** The indicator used to see the quality of foreign tourists is their expenditure while in Indonesia. The data used is secondary data and the statistical analysis used is panel data regression to see the effect of Economic Distance, GDP per capita, Average Length of Stay and Exchange Rate on the quality of Foreign Tourists from 2010 to 2019. **Results:** Foreign tourists to Indonesia are dominated by young tourists, male and stay about 8.87 days. Their expenditure is relatively low, mostly spent on accommodation, food and beverage. The variables of average length of stay, exchange rate, economic distance, and GDP per capita have a significant and positive effect on the quality of foreign tourists to Indonesia. **Conclusions:** The number of foreign tourists visiting Indonesia in 2010-2019 tends to increase where the majority of tourists come from countries that are geographically close to Indonesia, young tourists, and male. The quality of tourists in terms of spending is still relatively low. The characteristics of foreign tourists and economic indicators used in the study have a positive effect on improving the quality of tourists.

**Keywords :** Tourist Quality, Fixed Effect Model, Tourist Spending, Tourism Sector

**JEL Classification Code:** C23, F31, L83, Z32

### 1. Introduction

Indonesia as a country that implements an open economy is faced with the problem of how to increase the value of exports in order to produce a surplus value of the trade balance. In this era of globalization where national borders are easy to cross and travel between countries is also getting easier, affordable, and faster, products that can be exported are no longer limited to goods but also for services and one of the sectors that has the potential to develop and increasing the country's foreign exchange reserves is the tourism sector.

Tourism is often referred to as an invisible export because tourism does not trade abroad but benefits from tourist spending and its ability to bring in foreign exchange is not inferior to other commodity exports. The World Travel & Tourism Council (WTTC) noted that in 2019 the global tourism sector grew by 3.5%, this tourism sector growth exceeded global economic growth, where the global economy only grew by 2.5%, with a total employment of 330 million workers. This shows the potential of tourism as a source of foreign exchange income and as a driving force

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of the world's economy, especially Indonesian economy, needs to be utilized as well and as early as possible.

Tourism in Indonesia is still relatively underdeveloped, as seen in the contribution of tourism to GDP in Indonesia which was only 5.7 percent in 2019, which is the second lowest in the ASEAN region according to WTTC (2019). Although the increase in the number of foreign tourists visiting was quite significant and foreign exchange income also increased in line with the increase in the number of tourists, the percentage of the contribution of the tourism sector to Indonesia's GDP was still very low, always below 5 percent throughout 2010 to 2019 according to the Indonesian Bureau of Statistics (BPS). This low contribution is because the increase in the quantity of tourists is not matched by an increase in the quality of tourists themselves where the average foreign tourist spending only increased 22.5 percent from 2009 to 2018. Another factor that causes the low contribution of the tourism sector is because the majority of foreign tourists visiting Indonesia are those who come from neighboring countries such as Malaysia and Timor Leste but have low expenditures. Therefore, increasing the tourism sector now is not enough to focus on the quantity of tourists, but must begin to shift to a new tourism paradigm, which is improving the quality of tourists. There are at least three main indicators to see the quality of tourists, one of which is high spending power (Pitana, 2020). This indicator is used because the goal is to increase the country's foreign exchange earnings which will further increase tourism development in Indonesia and this indicator is also the easiest to measure. Therefore, this study aims to analyze the quality of foreign tourists in terms of expenditure to Indonesia and the factors that influence it.

## 2. Literature Review

### 2.1. Tourism

According to the Indonesian Bureau of Statistics (BPS), tourism is a whole series of activities related to the movement of people who travel or make a temporary stopover from their place of residence to one or several destinations outside their environment of residence which are driven by several needs or motives without the intention of earning a permanent living. Based on Law number 10 of 2009 concerning tourism, tourism is a variety of tourism activities and is supported by various facilities and services provided by the community, entrepreneurs, the Government, and Local Governments. The United Nations World Tourism Organization (UNWTO, 2021) defines tourism as an economic, social and cultural phenomenon related to the activities of moving people to places outside their usual

environment of residence for the purpose of vacation, business or other personal purposes. People who do tours are called tourists, which are then divided into foreign tourists and domestic tourists.

### 2.2. Foreign Tourist

According to the UNWTO, a foreign tourist is any person who travels to a country outside the country of residence, with a length of visit of less than one year, with the main purpose of business, vacation, or other personal purposes. This definition includes two categories of foreign tourists, namely:

1. Tourist is every visitor who visits at least 24 hours, but not more than 12 months in a place visited for the purpose of vacation, recreation, attending meetings, religious reasons, studies, health, and others.
2. Excursionists are visitors who visit less than 24 hours at the places visited, including Cruise Passengers. Cruise Passengers are visitors who do not stay at accommodation available in the country visited, usually arriving by ship or train.

### 2.3. Quality Tourism

Quality tourism is tourism that can provide welfare for the community and can provide satisfaction for tourists. For the sake of creating quality tourism, it is necessary to develop sustainable tourism, namely tourism that pays full attention to the impacts that will occur on environmental, economic and social conditions not only in the present but also in the future. UNWTO (2021) believes that sustainable tourism development should:

1. Various natural resources that help tourism activities must be used optimally while maintaining the preservation of natural heritage and biodiversity
2. Cultural heritage and existing cultural values must be respected and preserved as well as contributing to cultural understanding and intercultural tolerance
3. Maintaining economic activity in the long term by ensuring a fair distribution of benefits, stable employment and opportunity to earn income and social services to the community so that it helps to overcome poverty

Quality tourism indicators can be seen from the side of the local community, the tourist side, and the side of the product or service offered. Quality from the side of tourists is often observed because the observers are those from the side of the destination. The main indicators for seeing quality tourists are the high purchasing power of tourists, the

concern of tourists for the surrounding environment, and the concern of tourists for the preservation of local culture (Pitana, 2020).

## 2.4. Foreign Tourist Expenditure

One indicator to see the quality of tourists is the expenditure of foreign tourists while in the destination country. Foreign tourist expenditure is an important factor in the economy in the tourism sector, because foreign tourist spending is a multiplier factor for the number of foreign tourists visiting. The multiplication result becomes income for economic agents in the tourism sector and also becomes foreign exchange income for the country. So that the expenditure of foreign tourists can be said to be a pillar of the economy in the tourism sector (Mudarra-Fernández, Carrillo-Hidalgo, & Pulido-Fernández, 2019).

According to BPS (2019), foreign tourist expenditure is the amount of expenses or costs incurred during the trip. UNWTO (2021) states that tourist expenditure refers to the amount of money paid to obtain goods or services for personal use or to be given, for and during tourist trips. Including those paid by tourists themselves and those paid by others.

## 2.5. Length of Stay

Length of stay is the number of days that tourists spend in tourist destinations where the addition of days is marked by a change of date. The length of stay is an important factor that can affect a country's foreign exchange earnings. This is because the longer a tourist stays in a tourist destination the more money he spends in the tourist destination. Consumptive costs will arise from various needs during the tour, at least for accommodation, food, and drinks which are essential needs. This increase in consumptive activities will increase the income of business agents in the tourism sector for the remuneration of services provided. The length of stay will greatly affect foreign exchange earnings for countries that rely on the tourism sector as the main source of foreign exchange earnings for their country (Wijaya, 2017).

## 2.6. Gross Domestic Product

Based on Mankiw (2015) Gross Domestic Product (GDP) is one of the macroeconomic indicators to measure how well a country's economy is running, because the purpose of GDP itself is to represent the value of an economic activity within a certain time period. GDP can be seen from the expenditure side or from the revenue side, this is because both are the same where the expenditure side is seen from the buyer's side and income is seen from the seller's side.

Based on the 2008 SNA, GDP basically comes from the concept of added value. GDP is the sum of the difference between output and intermediate consumption plus taxes on products minus subsidies on products that are not included in the output assessment. GDP from the expenditure side is equal to the number of final uses of goods and services other than intermediate consumption as measured by buyer prices minus the value of imports of goods and services. GDP in terms of income is the sum of the primary income of the factors of production. From this definition, GDP can be calculated using an approach from the value added side, the expenditure side, and the income side. From the value of GDP, it can be shown the value of GDP per capita, which is an indicator that shows the average productivity of the population of a country. This indicator is often used as a comparison between countries when the same monetary unit is used.

GDP per capita can also be interpreted as a measure of the welfare and prosperity of a country because it is the average income of the population of a country. Expenditure of foreign tourists can be interpreted as the cost of consumption during their tour. According to the consumption function of John Maynard Keynes, when income rises it will cause spending and savings to also increase (Mankiw, 2015). Keynes said that when a person's income increases, he tends to increase his consumption as well, although not as much as his income increases. In other words, when a person earns extra money as income then he will spend some and keep the rest.

## 2.7. Economic Distance

Distance as an indicator of transportation costs is an obstacle in conducting trade, in general the longer the distance, the higher the transportation costs, the higher the transaction costs. Ghemawat (2001) said that the distance factor should not only be seen from geographical distance but also from three other dimensions, namely cultural distance, administrative or political distance and economic distance. Li, Song, and Zhao (2008) in their research replace the distance variable with a weighted average economic distance to represent transportation costs, this economic distance is calculated by the formula:

$$DIST_{Indonesia.f} = \frac{DIST_f \times GDP_f}{\sum_{f=1}^n GDP_f} \quad (1)$$

$DIST_{Indonesia.f}$  is the economic distance between Indonesia and country f.  $DIST_f$  is the geographical distance between Indonesia and country f.  $GDP_f$  is GDP of country f and f is a cross section data consisting of 34 countries.

Nicolau and Más (2005) says that the long distance between the origin and destination will be associated with higher tourist spending. This positive relationship is based on the argument that increasing distance will lead to a longer duration of stay. This is due to the fact that transportation costs are fixed costs, which means that the longer a tourist stays in a tourist destination, these fixed costs can be divided by the number of days spent traveling or can reduce the fixed costs per day. A tourist's decision making in traveling far will be determined by his decision to stay for how long during his tour. So the distance factor will affect how long tourists will stay which will then affect their spending during the tour.

## 2.8. Exchange Rate

The exchange rate between two countries is the price paid by the residents of each country to trade, the exchange rate is divided into two, namely the nominal exchange rate and the real exchange rate. The nominal exchange rate is the relative price of the currencies of two countries or the value in domestic currency that must be issued to obtain foreign currency. The real exchange rate is the relative price of an item in two countries, the real exchange rate is also called the terms of trade and is considered a measure of international trade. The real exchange rate is calculated by multiplying the nominal exchange rate by the ratio between the price of domestic goods and the price of foreign goods (Mankiw, 2015).

Expenditures of foreign tourists can be interpreted as a proxy for the export of services from the tourism sector, so that the relationship can be linked between the exchange rate and exports. The exchange rate can affect exports in two conditions, namely when the exchange rate strengthens (appreciates) and when the exchange rate weakens (depreciates). When the domestic currency appreciates, it can buy more foreign currency and when it depreciates, less foreign currency can be bought (Mankiw, 2015). This shows that there is a positive relationship between the depreciation of the domestic currency and the trade balance. When the domestic currency depreciates, it indicates that the price of domestic products is relatively cheaper, because the same amount of dollars will provide a larger amount of Rupiah (Ginting, 2013).

Mudarra-Fernández, Carrillo-Hidalgo, and Pulido-Fernández (2019) analyze and present the results of a literature review on what variables affect tourist spending from various tourism typologies, the results of this study conclude that the variables that affect tourist spending are income, duration of stay, number of members in the group, and loyalty to tourist destinations. This variable will directly and indirectly affect tourists in choosing services during tourism trips. In addition, Faidzin (2017) research which aims to determine the causality of the rupiah exchange rate

per US dollar against the number of foreign tourists and the amount of tourism foreign exchange. The results of the Vector Auto Regression (VAR) analysis show that there is a reciprocal relationship between the rupiah exchange rate per USD and the amount of tourism foreign exchange, which means that if tourism foreign exchange changes, it is certain that one of the influencing factors is the exchange rate and the opposite is true even though this variable is not the only variable that affects change. Asgary, De Los Santos, Vincent, and Davila (1997) investigated the determinants of spending on Mexican tourists in Texas. The results of the study using a log-linear function show that the expenditure of tourists from Mexico in the USA is a function of income level, socio-economic variables, and demographic variables. This study shows that when the income of tourists from Mexico increases by 1% it will increase their spending by 0.22%. Another finding is that non-border respondents spend 54% more spending than Mexican tourists from the border, this is because those outside the border incur higher opportunity costs to come to the USA. Vietze (2011) in his research focuses on analyzing the determinants of tourism abroad. Researchers find that an increase in GDP per capita will increase the demand for outbound tourism and increase tourism spending. GDP per capita is also the most important factor influencing a person's decision to travel abroad.

## 3. Research Methods and Materials

The data used in this study is secondary data sourced from Indonesian Bureau of Statistics (BPS) publications obtained from the Passenger Exit Survey, the official website of the world bank and the official website of the Center d'Études Prospectives et d'Informations Internationales (CEPII). The variables used consisted of the average expenditure of foreign tourists as the dependent variable and the average length of stay, the foreign exchange rate against the rupiah, the economic distance of the foreign tourists' home countries, and GDP per capita of the foreign tourists' origin countries as independent variables. The study covers 34 countries, namely the United States, Saudi Arabia, Australia, Austria, Bangladesh, Netherlands, Belgium, Brunei Darussalam, Denmark, Philippines, Finland, Hong Kong, India, United Kingdom, Italy, Japan, Germany, Canada, South Korea, Malaysia, Egypt, Norway, Pakistan, France, Portugal, Russia, New Zealand, Singapore, Spain, Sri Lanka, Sweden, Switzerland, Thailand, and China with the study period from 2010 to 2019.

Descriptive analysis is presented in graphs and figures and used to provide an overview of the quality and characteristics of foreign tourists to Indonesia in 2010-2019. Panel data regression analysis was used to analyze the effect of tourist characteristics and economic indicators on the

quality of foreign tourists visiting Indonesia. In panel data regression analysis, the first thing to do is to model the three possible estimation models that can be formed, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Furthermore, a formal test is carried out, namely the Chow test to select the best model between CEM and FEM. Hausman test to determine the best model between REM and FEM. BP-LM test to select the best model between REM and CEM models. The next step is to test the variance-covariance structure if the best model obtained is CEM or FEM, whereas if REM is the best model, the classical assumption test is continued. The test of the variance-covariance structure begins with the Lagrange Multiplier (LM) test to determine whether there is a heteroscedasticity problem, if there is no heteroscedasticity problem found, the estimation model used is Ordinary Least Square (OLS). However, if a heteroscedasticity problem is found, the  $\lambda$ LM test is continued to see whether the heteroscedastic variance-covariance structure has a cross-sectional correlation or not. If the residual covariance-variance structure is heteroscedastic without any cross-sectional correlation then the estimation method used is Weighted Least Square (WLS) with Cross-sectional Weight, whereas if the residual variance-covariance structure is heteroscedastic with the presence of cross-sectional correlation, the method used is Feasible Generalized Least Square (FGLS) with Seemingly Unrelated Regression (SUR).

After getting the best model to use, the next step is to do a Classical Assumption Test according to the model obtained. In general, there are four classical assumption tests that must be met, namely the assumption of normality, the assumption of non-autocorrelation, the assumption of homoscedasticity and the assumption of non-multicollinearity. After all the classical assumptions are met, the next thing to do is to do a Model Significance Test by looking at the simultaneous coefficient values (F-statistics), partial coefficients (t-statistics), and the coefficient of determination (R2). Then do an interpretation to answer research questions from the results of the models that have been previously selected so that conclusions can be drawn about what is obtained from the research that has been done.

The model in the study to see the effect of the average length of stay, economic distance, exchange rate, and GDP per capita on foreign tourist spending is as follows:

$$RPWM_{it} = \alpha_i + \beta_1 RLT_{it} + \beta_2 Kurs_{it} + \beta_3 JE_{it} + \beta_4 GP_{it} + \varepsilon_{it} \quad (2)$$

Where *RPWM* is the average expenditure of foreign tourists or the costs incurred by foreign tourists while traveling in units of millions of rupiah. *RLT* is the

average length of stay that is the number of days spent during the visit. *Kurs* is the exchange rate of the foreign tourist's country of origin against Indonesia in rupiah. *JE* is the economic distance representing the distance between Indonesia and the country of origin of foreign tourists from an economic point of view measured by kilometers. *GP* is GDP per capita which is a proxy of foreign tourist income in thousands of dollars and  $\varepsilon$  is the error component.

## 4. Results and Discussion

### 4.1. Overview of the Quality and Characteristics of Foreign Tourists to Indonesia

The results showed that in general the number of foreign tourists visiting Indonesia from 2010-2019 showed an upward trend which can be seen in Figure 1. Judging from the percentage increase, foreign tourists from Africa and Asia other than ASEAN showed the most drastic increase, namely 346 percent and 300 percent from 2010 to 2019. Meanwhile, in total, tourists from Asia as a whole and Europe showed the most increase from 2010 to 2019. Europe showed an increase of 1.0273 million people while Asia as a whole showed an increase of 6.6946 million.

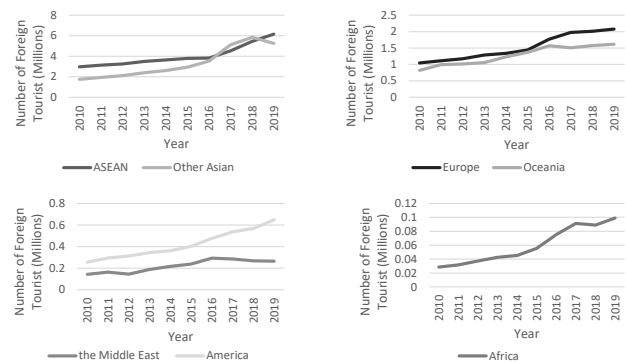


Figure 1: Number of foreign tourists to Indonesia in 2010-2019

Figure 1 also shows that foreign tourists visiting Indonesia are always dominated by countries that are geographically close. Tourists who come from countries that tend to be far away such as countries in America and Africa in total still tend to be small. This shows that the close distance shows the ease of tourists to visit Indonesia. On the other hand, this also shows that Indonesia's tourism demand is still small in countries far from Indonesia. This can also mean that there are still opportunities to increase Indonesia's tourism demand. The trend that continues to increase every year gives a signal that there is still great potential for

Indonesian tourism to develop and increase its demand.

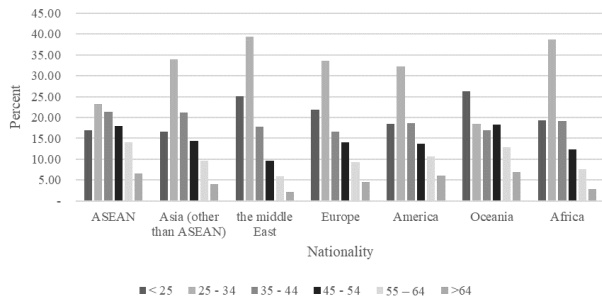


Figure 2: Distribution of foreign tourists to Indonesia by age group in 2019

In 2019, foreign tourists visiting Indonesia were dominated by tourists aged 25-34 years, except for those from Oceania, which were dominated by tourists aged less than 25 years as shown in Figure 2. Meanwhile, tourists who are more than 64 years old are the least in number. In total, the distribution of foreign tourists aged 25 to 34 years is 28.48 percent and foreign tourists aged more than 64 years is only 5.41 percent. A very big difference is seen in tourists from the Middle East and Africa where the dominance of tourists aged 25 to 34 years is almost 40 percent while tourists aged 64 years are just 2 to 3 percent. This shows that Indonesian tourism is in great demand by those who are young and less attractive to the elderly.

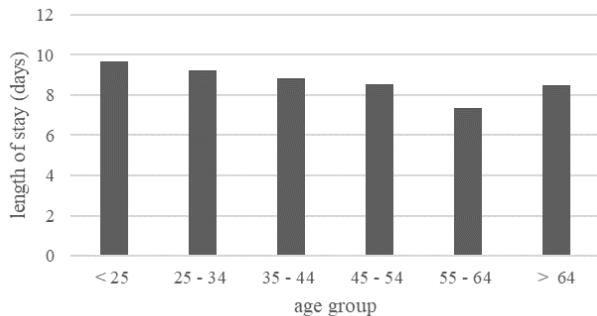


Figure 3: Average length of stay of foreign tourists by age group in 2019

Foreign tourists who came to Indonesia in 2019 visited an average of 8.87 days per visit. Figure 3 shows that for each age group the average length of stay of foreign tourists is not much different, where the shortest visits are tourists in the 55-64 age group (7.35 days) and the longest is the age group <25 (9.67 days).



Figure 4: Average length of stay of foreign tourists by gender and nationality in 2019

On average, male tourists tend to stay longer in each tourist visit. Figure 4 shows that foreign tourists from neighboring countries such as Asia and Oceania tend to stay longer than tourists from other continents. This is because the distance from the country of origin to the country of tourism destination, the greater the opportunity cost that arises, so that foreign tourists from distant countries tend to satisfy their vacation time by taking a longer vacation.

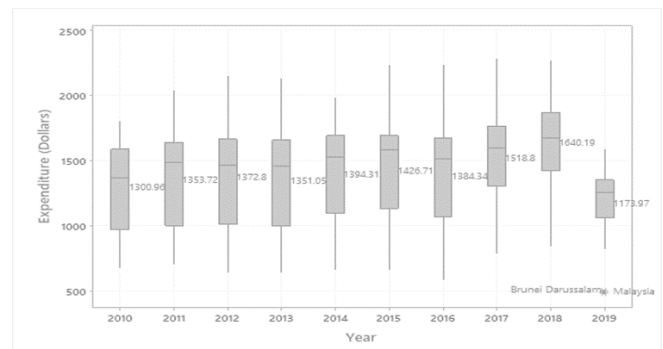
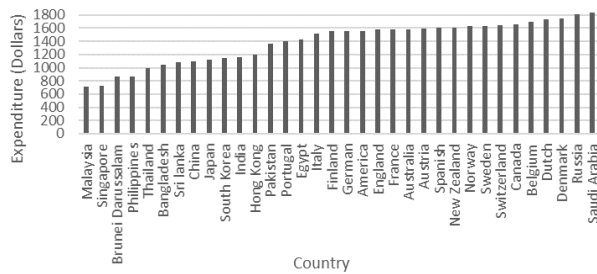


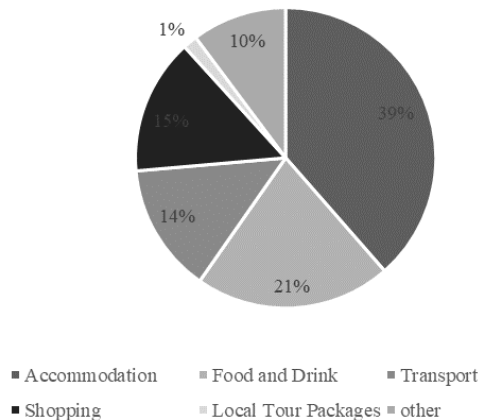
Figure 5: Boxplot of the average expenditure of foreign tourists in 2010-2019

Expenditures of foreign tourists appear to have an upward trend from 2010 to 2018 where in 2018 the average expenditure of foreign tourists was \$1,640 and then decreased in 2019 to \$1,174. In Figure 5 it can be seen that Brunei Darussalam and Malaysia fell deep enough to be categorized as outliers in 2019 with an expenditure of around \$ 490. The decline that occurred in 2019 could not be separated from the fact that many events in the year resulted in negative tourist sentiment towards Indonesia. The presidential and simultaneous elections in 2019 were quite chaotic and signaled the unfavorable political situation in Indonesia. Cases of smuggling Brompton luxury bicycles and Harley Davidson motorcycles on Garuda Indonesia Airlines planes. Blackout in Jakarta and the emergence of the Covid-19 virus pandemic that occurred at the end of 2019 became several cases that caused the decline that occurred in 2019.



**Figure 6:** Average expenditure of foreign tourists in 2010-2019 by country of origin

From Figure 6 it can be seen that tourists from Malaysia and Singapore are the lowest-spending tourists with an average of \$708 and \$731. On the other hand, tourists from Saudi Arabia are consistently the highest-spending tourists since 2015 with an average spend of around \$ 2,261 from 2015-2018 then fell to \$1,592 in 2019 and an average over the observation period of \$1,832. Travelers from neighboring countries have lower spending than tourists from distant countries, who tend to have higher spending.



**Figure 7:** Distribution of foreign tourists spending by type of expenditure in 2019

In 2019, the average foreign tourist spending per visit was US\$1,145.64. The most widely used expenditure for accommodation was US\$ 441.65 as shown in Figure 7. Then the highest expenditure was then used for food and beverages of US\$ 242.27. The distribution of this expenditure is in accordance with the essential things needed by foreign tourists for the convenience of traveling. The distribution of the least expenditure was on local tour packages, which was only US\$ 17.76. This indicates that local tour packages are less desirable and foreign tourists prefer to travel independently.

**4.2. The effect of tourist characteristics and economic indicators on the quality of foreign tourists**

In panel data regression, there are three possible models, namely CEM, FEM, and REM. Several tests were carried out to determine the best model, where the test result can be seen in table 1. The Chow test and Hausman test showed consistent results, namely FEM was better, then the Breusch-Pagan LM test which aims to compare between CEM and REM was not necessary. With the LM and Lambda LM tests showing that heteroscedasticity and cross-sectional correlation occur, the best model is FEM with the seemingly unrelated regression (SUR) estimation method.

The FEM-SUR model has accommodated autocorrelation and heteroscedasticity problems, so the classical assumption test only includes normality and non-multicollinearity tests. By using the Jarque-Bera test, a p-value of 0.3909 is obtained, so that the normal assumption is met. The non-multicollinearity test using Variance Inflation Factor (VIF), shows that the VIF value of each independent variable is less than 10. Based on the statement from Gujarati (2008), if the VIF value is < 10 then there is no multicollinearity. So it can be concluded that in this model the assumption of non-multicollinearity has been fulfilled.

**Table 1:** Diagnostics of Panel Regression

Diagnostics	Null Hypothesis	Results	Conclusion
Chow test	CEM is better than FEM	p-value = 0,0000	FEM is better
Hausman test	REM is better than FEM	p-value = 0,0000	FEM is better
Lagrange Multiplier test	The variance between individuals is the same (Homoscedastic)	LM = 169,0024 > $\chi^2_{0,05;33} = 47,3999$	There is a heteroscedastic problem
Lambda LM test	There is no cross-sectional correlation	$\lambda_{LM} = 2060,982 > \chi^2_{0,05;561} = 617,2098$	There is a cross-sectional correlation

From the results of the FEM-SUR estimation model in table 2, it can be seen that the adjusted value of the coefficient of determination (adjusted R-squared) is 0.7720. This means that around 77.2 percent of foreign tourist spending to Indonesia can already be explained by the variables of average length of stay, exchange rate, economic distance, and GDP per capita. While the remaining 22.8 percent is explained by other variables not included in the model. The value of adjusted R-squared explains how well a model explains the relationship between the dependent variable and the independent variable.

**Table 2:** Estimation of Panel Regression

Variables	Coefficient	t-Statistic	t-tabel
C (Intercept)	-29,3301	-3,2605	-1,6499
Average Length of Stay	0,5435	2,5505	1,6499
Exchange Rate	0,0014	4,1179	1,6499
Economic Distance	0,0155	4,3638	1,6499
GDP per Capita	0,7646	3,1511	1,6499
<b>Summary of Statistics</b>			
R-squared	0,7969	F- statistic	32,0342
AdjustedR-squared	0,7720	p-value	0,0000

Note: Significance at  $\alpha = 5\%$

To see the effect of all independent variables on the dependent variable simultaneously, a simultaneous F test was carried out. The calculated F value obtained was 32,034 (table 2) with a p-value of 0.0000 which means it is smaller than the 0.05 significance level. The test results are Reject  $H_0$ , meaning that there are at least one or more independent variables that have a significant influence on the model. Thus, using a significance level of 5 percent, it can be concluded that simultaneously the independent variables used have a significant effect. Furthermore, a test was conducted to see the effect of each independent variable on the dependent variable partially using the t test. From the estimation results obtained that all independent variables are significant and statistically affect the expenditure of foreign tourists at a significance level of 5 percent, can be seen in table 2.

At the 5 percent significance level, the average length of stay has a positive and significant impact on the expenditure of foreign tourists in Indonesia. With the resulting variable coefficient value of 0.5435, which means that any increase in the average length of stay of 1 day will cause an increase in foreign tourist spending of around 543.5 hundred thousand rupiah with the assumption that the other independent variables are constant. The results obtained are in line with Nicolau and Más (2005) research that the length of stay factor has a significant positive effect on the level of expenditure so that the longer the duration of stay, the higher the total expenditure. On the other hand, an increase in expenditure of Rp. 543,500.00 for every 1 day increase in the duration of stay cannot be said to be a large enough increase. Considering the price range for hotels in Indonesia, which are sought after by tourists themselves, ranges from Rp. 300 thousand to Rp. 2 million (Wego, 2020). This is due to the rise of backpacker tourists, namely tourists with minimal costs who can even beg and sing for money. Backpacker tourists tend to choose cheap accommodation such as inns or hostels, even the average daily expenditure for food and drink accommodation for backpacker tourists

is less than IDR 250 thousand. (Menuh, 2017). Tourists visiting Indonesia are dominated by young tourists, where backpackers are also dominated by young backpackers. These young tourists aim to travel as cheaply as possible, because they are basically looking for experience and adventure.

The coefficient of the exchange rate variable obtained is 0.0014 which means that at a significance level of 5 percent, every increase in the exchange rate of 1 rupiah will have an impact on tourist spending which increases by 0.0014 million rupiah or every increase in the exchange rate of 1000 rupiah will increase foreign tourist spending by about 1,4 million rupiah assuming the other independent variables are constant. The increase in the exchange rate here is the increase in rupiah that is obtained for every exchange of one currency unit, which means the rupiah depreciates. The results obtained are in accordance with the theory and research of Ginting (2013) which states that when the exchange rate appreciates, exports decrease and vice versa when the exchange rate depreciates, exports increase. Decision-making in the exchange rate variable must be careful, because the additional expenditure may only be due to changes in the exchange rate, while the original expenditure, which is in the tourist's original currency, is no different. For example, tourists from America, in 2019 their average expenditure was 18.479 million rupiah with an exchange rate of Rp. 14,147 per dollar, which means the expenditure was \$1,306.17. When there is an increase in the exchange rate of 1000 rupiah, the expenditure becomes 19.879 million rupiah with the exchange rate being Rp. 15,147 which means the original expenditure increases to \$1,312.36. The government of course also intervenes so that the currency does not continue to depreciate or at least the depreciation that occurs is not too deep. The government must also maintain that the exchange rate is at an optimal level so that a healthy increase in exports occurs.

Economic distance has a positive and significant relationship with a significance level of 5 percent with a variable coefficient of 0.0155 which means with every one kilometer increase in economic distance will increase foreign tourist spending by about 15.5 thousand rupiah assuming other independent variables remain in a constant state. These findings are in line with the study of Nicolau and Más (2005) where the farther the area of origin to the tourist destination, the longer the stay which then increases the cost of spending. Tourists who decide to travel for long-distance tours are also assumed to have high expenses. This is because at least they have enough budget to buy transportation tickets which are getting more expensive as the distance gets further and have allocated the rest of their budget for needs during their vacation.

The independent variable GDP per capita is shown to have a positive and significant relationship at a significance



level of 5 percent with a variable coefficient of 0.7646. It can be concluded that for every GDP per capita of the country of origin of foreign tourists increases by a thousand dollars, the expenditure of foreign tourists will increase by about 764.6 thousand rupiah. This result is in line with the findings of Nicolau and Más (2005), where tourism is a normal good which means an increase in income will increase spending while on vacation. This increase can be said to be normal, with the rupiah exchange rate in 2019 of Rp. 14,147, which means an increase in annual income of Rp. 14,147,000, so spending on tourism to Indonesia increased by Rp. 764,600. These numbers show that about 5 percent of the increase in annual income will be allocated for tourism activities to Indonesia. This income allocation figure is fairly normal where the allocation is 2 times more than backpacker tourists who only allocate 2.2 percent of their annual income for tourism to Bali (Menuh, 2017).

The FEM model has individual effects, namely different intercept values for each individual studied. The intercept value obtained means the average expenditure of foreign tourists in each country if the other independent variables are held constant. The country with the largest individual effect value is Pakistan (39.1042) and the smallest is the United States (-84.5659). This can be interpreted that the expenditure of foreign tourists originating from Pakistan is on average the highest during their visit to Indonesia in terms of individual effects and assuming other independent variables are constant. On the other hand, foreign tourists originating from the United States on average have the smallest expenditure during their visit to Indonesia assuming other variables are constant.

## 5. Conclusions

Based on the results and discussion of the model in the study of factors that affect the expenditure of foreign tourists to Indonesia in 2010-2019, it can be concluded that (1) The number of foreign tourists visiting Indonesia in 2010-2019 continues to increase, where the majority of foreign tourists visiting Indonesia are tourists who come from countries that tend to be geographically close to Indonesia, for example, Malaysia and Singapore. In terms of characteristics, foreign tourists are dominated by male young tourists (25-34 years old) with an average length of stay of about 8.87 days per visit. The quality of foreign tourists in terms of expenditure per visit to Indonesia is still relatively low, most of which is spent on accommodation, food and beverage needs. (2) The variables that have a positive and significant effect on improving the quality of foreign tourists are the average length of stay, exchange rates, economic distance, and GDP per capita.

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