

The Impact of Tourist Visits on Indonesia's Bilateral Trade Intensity

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Abstract: Tourism is thought to have a substantial impact on the national economy as a whole. Several previous types of research have established that there is a substantial association between tourism and foreign trade. The goal of this study is to examine the impact of tourism on international trade intensity between Indonesia and the visitor's place of origin as evaluated by international tourist visits. A panel data set was created by merging data from ten tourist countries of origin over the last ten years. The ECM analysis technique was used to determine the presence of both short and long-term associations. The findings indicate that international tourist visits have a favorable effect on trade intensity between Indonesia and the tourist's home country. This necessitates changes in both tourism and foreign trade target sectors.

Keywords: tourism and development, trade intensity, bilateral trade, ECM model.

JEL Classifications: L83, O24, Z32.

INTRODUCTION

Over the past few decades, tourism has enjoyed rapid growth and wider geographic diversification which has made it one of the most relevant sectors worldwide (International Trade Center (ITC) & World Tourism Organization (WTO), 2015). Tourism definitely has to be considered as one of the modern-day economic and social phenomena and undoubtedly will continue to hold this position in the future. Year after year, an ever-growing portion of the world's population is engaged in some sort of tourism activity. For most countries, tourism has morphed into a highly dynamic and fast-growing economic sector. World tourism is generally measured in terms of the number of international tourist arrivals and tourist revenues (Luzzi & Flückiger, 2003).

Tourism accounts for roughly 10% of the total global GDP, accounting for both direct and indirect effects. According to BPS data, tourism contributed approximately 4.16% per year in Indonesia between 2015 and 2017. However, in 2018, this contribution had climbed to 5.25%. According to the Ministry of Tourism, tourism contributed 15% of Indonesia's GDP in 2019. Indonesia has long been recognized for its exceptional natural and cultural resources. Potential natural resources and ecosystems can be developed while also serving as conservation and tourist attractions. Indonesia's culinary diversity also offers a variety of flavors that might be promoted as potential culinary tourism attractions. Because of these numerous attractions, Indonesia has become one of the world's most popular tourist destinations.

Tourism's importance in the Indonesian economy is growing, as it can offer the government an alternative source of cash to replace oil and gas. Outside of exports, revenue from the

tourism industry is a source of income. The tourism sector's contribution to GDP in 2019 was estimated to be at US\$ 13-14 billion, while oil and gas contributions remained at US\$ 18 billion and were moving downward (Fitriani, 2017). The modern administration of the tourism business has had a significant economic impact (Antara & Sumarniasih, 2017). According to Meyer and Meyer (2015), tourism has become one of the greatest industries in the world and plays an important role in the economic development of a tourist destination. According to a UNWTO study, approximately 1.1 billion international tourists traveled in 2014, representing a huge rise from 25 million travelers in 1950. These tourists generated US\$ 1.5 trillion in exports to destination nations, accounting for approximately 6% of total global exports (International Trade Center (ITC) & World Tourism Organization (WTO), 2015).

Tourism development in the international tourism environment is primarily focused on international tourist visits, capitalizing on the trend toward globalization to benefit the economy (Dawyer, 2015). The tourism industry requires low-cost labor, distinctive scenery, and diversified flora and wildlife (Oskam & Boswijk, 2016). As a result, tourism has become crucial for increasing labor absorption, establishing new economic opportunities, achieving equitable national development, and alleviating poverty, with the ultimate goal of improving the welfare of all people (Manzoor, 2019; Anghel, 2015). A strong expansion in the tourism industry naturally stimulates growth in other tourism-dependent sectors, such as trade, lodging and dining, transportation, finance, and other services, all of which contribute significantly to a country's foreign exchange income (Muhanna, 2006). Tourism has grown to become a tremendously profitable sector. Increases in visitor arrivals, the average length of stay, and average spending during visits suggest that the tourism business is expanding (Nicely & Palakurthi, 2012).

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Viken (2015) defines tourism as all touring activities as well as the tourists themselves, who are transient in nature.

Tourism travel can be divided into two categories: business travel and vacation travel. Business travelers visit a certain country (tourist destination) with the intention of purchasing specific products from that country (thereby adding to its export profits) or selling specific products to that country (which is accounted for as its import purchases). These business trips will provide a variety of positive externalities (indirect benefits) for trade and tourism. Tourists traveling for pleasure can also have a direct impact on the economy by purchasing goods and services. Tourism has a considerable impact on lodging and dining services, transportation, the handicraft industry, food and beverages, and a variety of other tourism-related industries.

International travel, in essence, is a component of international trade that can boost economic growth through exports and imports. Furthermore, the presence of diverse facilities in a tourist destination area will pique the interest of investors to invest in that area (Lindblad, 2015). Because tourism and international trade have a tight association, tourism immediately assists a destination country's attempts to develop its economic potential by increasing international trade transactions.

Over the last 50 years, Indonesia's international trade has witnessed numerous alterations (Pangestu, Rahardja, & Ing, 2015). In 2018, there were 15.81 million tourist arrivals in Indonesia. This figure indicates a 12.61 percent rise over the previous year's total of 14.04 million arrivals. According to BPS data, tourists from the ASEAN region account for a considerable share of total tourists (20.60 percent). Malaysian tourists outnumbered all other nationalities in terms of tourist visits in 2018, with 2.50 million visits. Tourists from Singapore came in second with 14.42 million visits, with China coming in third with 11.22 million visits. Apart from these three countries, the majority of international tourists come from Australia (10.31 million), Japan (4.97 million), South Korea (3.45 million), the United Kingdom (2.69 million), the United States (2.56 million), the Philippines (2.40 million), and Thailand (1,170 million).

In terms of commerce, China is Indonesia's most important trading partner. According to BPS statistics, the overall trade value between Indonesia and China in 2018 was US\$ 72.66 billion, or more than 1000 trillion IDR. This value increased by 23.47 percent over the previous year and accounted for approximately 20% of Indonesia's overall international commerce. Unfortunately, when trading with China, Indonesia's trade balance was generally negative. With a trade value of US\$ 37.46 billion, Japan is Indonesia's second-largest trading partner, followed by Singapore with a trade value of US\$ 34.43 billion. Indonesia's overall trade value with its ten major trading partners increased 14.36 percent year on year to US\$ 26.34 billion, accounting for 71.38 percent of Indonesia's total trade value.

Based on these expanding occurrences, this study is being conducted to examine the long-term and short-term relationship between tourism growth and international trade between Indonesia and the countries of origin of international tourists. In this study, tourism is defined by the number of interna-

tional tourist arrivals, whereas international trade is measured by trade intensity between Indonesia and the countries of origin of the tourists. Several research has found a favorable association between the two factors (including studies conducted by Chaisumpunsakul and Pholphirul in 2017 and Santana-Gallego et al in 2011). The ECM approach was used in this research to investigate the association between the two variables in both the short and long term. Despite employing different sets of variables, both researchers discovered a positive and significant association between tourism and foreign trade. This highlights the significance of maintaining a favorable tourism climate in order to stimulate economic development.

LITERATURE REVIEW

Until recently, tourism development and international trade were seen to be unrelated concerns. Despite the fact that international tourism is still a growing component of foreign expenditures, trade economists have been slow to analyze the pattern of tourist development and expansion. In the hotel industry, the term "international tourism" is commonly used. International tourism is still a wonderful phenomenon that will continue to expand in the future. Global market integration has made it easier for global customers to purchase items from all around the world. Local manufacturers, on the other hand, who have traditionally catered to the demands of local clients, must now compete with all of those imported goods. On the other hand, they are offered fresh prospects in export markets to sell their products to other countries.

The evolution of the standard international trade theory widely known today began with two landmark publications, namely Adam Smith's *Wealth of Nations* and David Ricardo's *Principles of Economics*, which established the formula for the free trade theory. Their thinking notions are founded on Britain's industrial and commercial success (Sen, 2005). Smith claimed that labor division and specialization will have an influence on labor cost reduction, ensuring the efficacy of international competition. Problems with monetary adjustments for countries with ongoing trade surpluses can be overcome through automated adjustment using the price-specie flow mechanism.

Within the scope of international trade theory, comparative advantage is an important notion in explaining trade patterns between countries. David Ricardo was the first to establish the concept of comparative advantage, which eventually became known as the Ricardian model. According to the comparative advantage concept, a country will export commodities or services with the greatest comparative benefit and import those with the smallest comparative advantage. The Ricardian model is founded on various assumptions, including 1) that it is only applicable for basic analyses involving two countries and two final goods; 2) that each good requires only one type of production input (labor), which is homogeneous in terms of quality; and 3) that each good requires only one type of production input (labor); 3) Each country's labor supply is inelastic; 4) perfect labor mobility within the country but not across countries; and 5) labor need per unit of production is constant. 6) disparities in technology between the two countries; 7) There are no transportation costs or trade restrictions; and 8) markets for both factors and prod-

ucts are in perfect competition (Bowen, Hollander, & Viaene, 1998).

Modern international trade theories regard trade patterns between countries as the product of comparative advantages resulting from variations in resource endowment. Heckscher and Ohlin investigated the impact of disparities in factor resource endowment on international trade. The H-O model (Widodo, 2008) makes nine assumptions: 1) there are two countries involved (A and B), two homogeneous goods (x and y), and two factors of production (labor and capital) whose initial ownerships are relatively different in each country and are permanent in nature; 2) identical technology exists in both countries, i.e. the same production functions for both countries; 3) The production functions for the two commodities in both nations are at the constant return to scale (CRS); 4) the two goods have different factor intensities and will always remain the same for every factor price ratio; 5) both countries have the same tastes and preferences (same utility functions); 6) both countries have perfect competition in their markets; 7) perfect production factor mobility within each country but not between countries; 8) no transportation costs; and 9) no government interventions in the movement of goods between countries or in determining output and prices. This model, also known as the Heckscher-Ohlin model (H-O), concludes that a country will export goods that employ a large number of abundant factors of production and import commodities that require fewer scarce forces of production. The Heckscher-Ohlin model is based on the export of products that utilize factors of production that are clearly owned in abundance (land, labor, and capital).

Thus, international trade in goods is nothing more than an indirect trade in factors of production. The services of these non-transferable sources of production are effectively being shifted from abundant regions to scarce locations (Leamer, 1995). Under some conditions, trade in goods will erase factor price discrepancies across countries. Perhaps the most important implication of the Heckscher-Ohlin model is the ability to sell production elements out of the home market and into the global market (through goods exchange). For several years, the Heckscher-Ohlin model dominated international trade theory. The challenge to Heckscher-Ohlin's dominance began in the 1980s, spurred on by the enormous amount of trade in products with equal factor intensities or intra-industry trade between two countries with roughly identical resources. This fact violates the Heckscher-Ohlin theory's prediction. Numerous empirical research has indicated that trade between nations with the same or similar industries is stronger than trade between countries with diverse industrial characteristics or intra-industry trade. Other aspects, such as growing returns to scale (IRS), imperfect market rivalry, and product differentiation, were beginning to be included in order to make better predictions that were more accurate (Neary, 2009).

Theories highlighting the relationship between international trade and international tourism are founded on three tenets (Chaisumpunsakul & Pholphirul, 2018): 1) International trade promotes international business and helps to establish networks at the individual, commercial, and national levels. Furthermore, international trade contributes to the creation of

a network effect, which lowers international transaction costs while also encouraging cross-national travel and exchange. 2) International trade drives product advertisement, which draws attention from consumers all over the world and raises knowledge of the product's existence and country of origin, triggering a desire to visit that country. 3) International commerce promotes a country to create critical infrastructure, such as transportation and communication networks, to assist trade-related activities. These infrastructure improvements will gradually increase tourist traffic. When considering how tourism can enhance international trade, numerous logics can be advanced to justify the link (Santana-Gallegoa, Ledesma-Rodriguez, & Pérez-Rodriguez, 2011). 1) When it comes to business travel, there is a requirement to launch and maintain sales of globally traded products. A successful business trip will result in a number of export or import movements in the coming months. 2) While on vacation, travelers may unwittingly find business prospects that may drive international transactions in the coming months. Furthermore, travellers may wish to consume things that are not manufactured in their trip destinations and must therefore be imported there. This can be explained by numerous international commerce models in which consumers can consume things that are not produced locally. Changes in consumption patterns overseas and in destination nations can have a substantial impact on trade volume, which will eventually have an impact on the tourist's place of origin.

RESEARCH METHODOLOGY

This study utilizes a panel data which combines the data from 10 countries of origin contributing the most international tourist visits to Indonesia during the last ten years (2009 - 2018). The purpose of this study is to analyze the effect of tourism on Indonesia's international trade. International trade in this study is measured by the bilateral trade intensity between Indonesia and international tourist's country of origin, while tourism is measured by the number of tourist visits from each country of origin. The top 10 countries of origin are Malaysia, the Philippines, Singapore, Japan, China, Australia, United States, South Korea, Britain and Thailand.

The trade intensity index (often denoted as "T") is used to determine whether the trade value between two countries is greater or less than expected based on their relative positions in world trade. This index is defined as the share of a country's export to a partner country divided by the share of world exports to that partner country. The formula used to calculate the trade intensity index is as follows (World Bank, 2020):

$$T_{i,j} = \frac{(X_{i,j})/(X_{i,t})}{(X_{w,j})/(X_{w,t})} \quad (1)$$

Where $X_{i,j}$ and $X_{w,j}$ are the export values of country i and world exports (w) to country j respectively. Whereas $X_{i,t}$ and $X_{w,t}$ are the total exports of country i and the total world exports (w) respectively. An index value greater (or smaller) than one indicates that the bilateral trade flow between the two countries are bigger (or smaller) than expected, relative to the position of the partner country in the world trade.

This study covers four control factors in addition to the tourist visit variable: exchange rate, inflation, population, and GDP per capita. In this study, the exchange rate (X2) is the exchange rate of the currencies of the ten countries of origin versus IDR, also known as the bilateral exchange rate. In theory, exchange rates can have an impact on the economy and enterprises, either directly or indirectly, through the pricing of exported and imported items, as well as export and import activities. The IDR's devaluation is relative to other currencies will boost Indonesia's competitiveness and exports in the short run. In this study, inflation (X3) is calculated as the difference between Indonesia's inflation and the inflation of the ten countries of origin (in%). In theory, inflation signifies the price level that has been established in an economy. The higher a country's inflation rate, the higher the prices of its goods. The bigger the difference in inflation between Indonesia and a tourist's country of origin, the faster prices in Indonesia rise relative to prices in that nation. This will eventually make it more difficult for Indonesian products to remain competitive, as well as lower the value of international trade transactions. In this study, the population (x4) is the natural log of the population in the tourist-origin country. Meanwhile, GDP per capita (X5) is the value of each country's natural log of income per capita.

The Error Correction Model (ECM) data analysis technique was used to answer the challenges in this investigation. Only when there is cointegration between the independent and dependent variables can an ECM model be created, indicating the existence of a long-term relationship or equilibrium between the two variables despite probable imbalances in the short run. The model's specification is considered valid if the ECT (Error Correction Term) parameter is negative and statistically significant.

The data analysis under ECM comprises 3 steps, namely: 1) data stationarity test; 2) cointegration test to investigate the existence of long-term relationship between X and Y variables; and 3) the construction of the Error-Correction Model (Gujarati & Porter, 2009). The ECM model was initially implemented by Sargan and popularized by Engle and Granger in attempts to correct imbalances. An important theorem known as the Granger's theorem states that if two variables are integrated, then their relationship can be expressed in an ECM.

There are some notable advantages of using ECM (Harris, 1995). First, the ECM covers both short-term and long-term effects that can provide additional information regarding the speed of adjustment, i.e. the dependent variable's response to the occurring imbalances. Second, the entire model is stationary so that the regression standards are met and validated. Third, ECM is closely related to the cointegration concept.

The ECM equation employed in the analysis of this study is as follows:

$$\Delta trade_{i,t} = \delta_1 int_{i,t} + \delta_2 exch_{i,t} + \delta_3 inf_{i,t} + \delta_4 pop_{i,t} + \delta_5 gdp_{i,t} - (1 - \alpha_1) [trade_{i,t-1} - \hat{\beta}_0 - \hat{\beta}_1 int_{i,t-1} - \hat{\beta}_2 exch_{i,t-1} - \hat{\beta}_3 inf_{i,t-1} - \hat{\beta}_4 pop_{i,t-1} - \hat{\beta}_5 gdp_{i,t-1}] + u_{i,t} \tag{2}$$

The number of tourists is predicted to have a positive and significant effect because the higher number of international tourist visits leads to more transactions being made by these tourists due to the expansion of individual-level business networks. In addition, the arrival of international tourists also serves as a promotional tool which will further reduce transaction costs. The effect of the exchange rate is also expected to be positive because depreciation in IDR will increase Indonesia's competitiveness and leads to more trading transactions. The population and GDP per capita of tourism origin country are also expected to give a positive impact on bilateral trade intensity between both countries. On the other hand, inflation is expected to have a negative effect because the larger the difference between inflation in Indonesia and inflation in partner country, the more expensive Indonesian products relative to those of partner country, which will reduce trade intensity between the two countries.

RESULTS AND ANALYSIS

The number of international tourist visits to Indonesia continues to increase every year. Indonesia is one of the most popular tourist destinations that is highly favored by tourists from all over the world. Indonesia's cultural and biological diversities, as well as its natural beauty are some of its unique attractions. Based on the data during the study period (as seen in Fig. 1), Malaysian tourists dominate in first position. The close proximity makes Indonesia their favorite destination. Apart from Malaysia, several other ASEAN countries such as Thailand, the Philippines and Singapore also contribute a significant number of tourists. The visa-free policy imposed by ASEAN member countries is seen as conducive in stoking the interest to travel within the region.

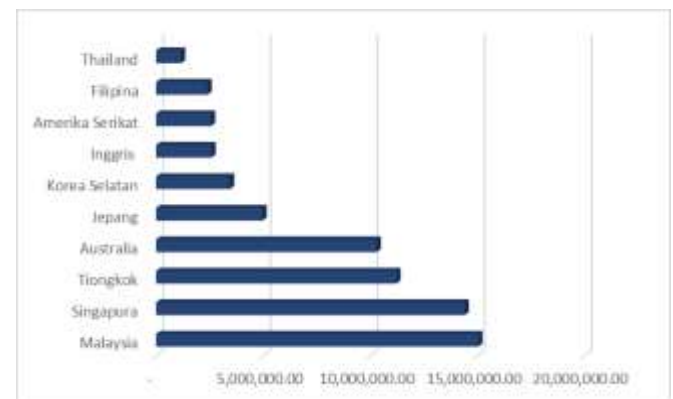


Fig. (1). The Top 10 International Tourist Visits to Indonesia Ranked by Nationality in 2009-2018 (Persons). Source: Central Bureau of Statistics.

Apart from tourists originating from ASEAN countries, tourists from China, Australia, Japan, the United States, and South Korea also account for significant numbers of tourists. Indonesia implements a visa on-arrival (VoA) policy for tourists originating from several countries visiting for special purposes, namely for business, leisure, and social visits with a maximum of 30 days length of stay. The five countries mentioned above are all on the VoA list. This is believed to have encouraged more tourist visits to Indonesia.

From trade perspective, Indonesia's top export destinations during the 2009 - 2018 period are countries like Japan, China

Table 1. Descriptive Statistics of Variable Data.

	Log_tourist	Exchange Rate	Inflation	Trade	Log_Population	Log_GDP per Capita
Mean	5.677030	6371.581	2.528000	0.044144	18.11066	9.845945
Median	5.622854	5231.650	2.350000	0.047304	18.01516	10.40709
Maximum	6.339122	18464.90	8.400000	0.085203	21.05453	10.98654
Minimum	4.970259	7.900000	-8.300000	0.009823	15.42246	7.650005
Std. Dev.	0.379176	5734.060	3.085780	0.019940	1.428745	1.097277
Skewness	0.070853	0.342527	-0.551213	-0.145877	0.281525	-0.576987
Kurtosis	1.834380	1.736034	4.059342	2.185953	3.101151	1.780996
Observations	100	100	100	100	100	100

Source: Data processed.

and the United States. While Singapore and Malaysia only rank fourth and fifth, as seen in Fig. 2.

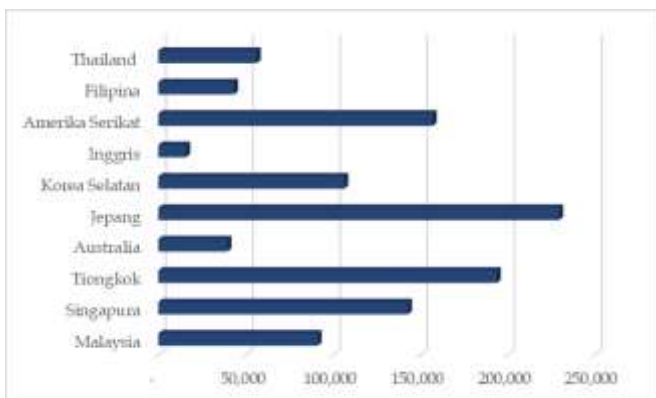


Fig. (2). Indonesia's Export Value to Top 10 Tourist's Countries of Origin in 2009-2018 (US\$ Millions).
Source: Central Bureau of Statistics.

Table 1 presents the descriptive statistics for the data used in the analysis. The average number of tourist visits is 680,368 persons with a standard deviation of 565,567. The country that had the highest number of tourists is Malaysia with 2,183,344 persons in 2018, while the country with the lowest number of tourists is Thailand with 93,381 persons in 2009. The average exchange rate is 6,371.578 with a standard deviation of 5,734.057. The country that had the highest exchange rate is Britain with 18,464.85 in 2018, while the lowest exchange rate is 7.9 for the currency of South Korea in 2011. The average inflation difference is 2.528 percent, with a standard deviation of 3.085780. The country that had the highest inflation difference with Indonesia is South Korea with 8.40 percent in 2018, while the lowest inflation difference is -8.30 percent for Singapore in 2014. The average trade intensity is 0.044144, with a standard deviation of 0.019940. The country that had the highest trade intensity is China with 0.085 in 2018, while the lowest trade intensity is 0.010 for Britain in 2018.

According to the mandatory steps required in an ECM testing, the data must first be tested for stationarity by performing a unit root test. The unit root test in this study was conducted by using several common methods of unit root test for panel data. The summary of the test results is presented in Table 2.

Table 2. Unit Root Test Results.

ADF Stat	Level		First Difference	
	t-Stat	Prob	t-Stat	Prob
International Tourist	1,45535	0,9272	-1,76592	0,0387
Exchange Rate	1,57892	0,9428	-2,42745	0,0076
Inflation	-0,9838	0,1626	-2,78285	0,0027
Trade	-1,63025	0,0515	-4,18541	0,0000
Population	-5,67988	0,0000	-3,49927	0,0002
GDP per capita	1,54371	0,9387	-8,02743	0,0000

Source: Data processed.

From the above test results, it can be concluded that all variables are stationary at first difference since the probability values for all variables are smaller than 0.05. The next step after the unit root test is the short-term equation test. The residual value of the linear model must first pass a cointegration test at level, which is done using a unit root test. At this stage, if the residuals are significant at level, then it can be said that all independent variables included in the model have long-term relationships or are cointegrated with the dependent variable. With a probability of smaller than 0.05, it can be said that the independent variables are cointegrated with the dependent variables so that they can be used in an ECM analysis.

The short-term and long-run equation test results are shown in Table 3. Based on the test results, the error correction term

Table 3. Regression on Trade Intensity Index between Indonesia and Tourist Origin of Countries.

Variable	Short Run		Long Run	
	Coefficient	t-Statistic	Coefficient	t-Statistic
C	0.000527 (0.0013768)	0.382892	-0.315897 (0.007799)	-40.50578
TOURIST	0.019443** (0.008247)	2.357510	0.023173*** (0.001094)	21.17489
INF	-0.000148 (0.000159)	-0.928048	-0.000377*** (0.000118)	-3.207070
EXCH	-4.28E-07 (7.56E-07)	-0.566325	-2.52E-06*** (1.07E-07)	-23.43668
POP	-0.234147** (0.104717)	-2.236002	0.006458*** (0.000197)	32.82038
GDP PERCAPITA	0.073528*** (0.021727)	3.384117	0.013041*** (0.000580)	22.47703
ECT	-0.107618** (0.050622)	-2.125906	-	-
R ²	0.226140		0.964851	
F-statistic	4.042423***		516.0702***	

Notes: standard error in parentheses. The *** sign indicates significance at $\alpha = 1\%$; ** indicates significance at $\alpha = 5\%$.

(ECT) coefficient is -0.1076 and significant. This indicates that the ECM model is valid since ECT coefficient is negative and significant. The value of 0,1076 represents the speed of adjustment of dependent variable in case of a short-term shock in the constituting variables, back to its long-term equilibrium. A value smaller than 0.5 indicates that speed of adjustment is slow, in this case only 10% of the imbalances will be corrected in each period.

Tourism, as indicated previously, has a favorable and large impact on bilateral trade intensity between Indonesia and the tourist's nation of origin. This positive and considerable effect supports empirical results showing tourism is another outlet for Indonesia's international trade with other countries across the world. In addition to bringing in foreign currency, visiting tourists enable individual market access without the necessity for expensive promotion. According to Easton (1998), the relationship between tourism and trade can be explained from either the demand or supply side. Tourism, from a demand standpoint, can be seen as a shared function of price and cost in the Ricardian paradigm. The construction of various facilities and infrastructures would result in increased spending on numerous commodities. From a supply standpoint, it appears that the production of tourism services, physical goods, and other services are both substitutes and complimentary to one another.

Santana-Gallegoa et al (2011) proposed several explanations for the impact of tourism on trade. When visitors arrive for

business, the destination country will start or continue its commerce in goods and services. Successful business visits will immediately boost the flow of exports and/or imports, resulting in increased international commerce transactions in the coming months. When tourists come to visit for vacation, they may unwittingly discover specific commercial chances that can lead to international commerce transactions in the future. Furthermore, tourists may choose to consume things that are not produced locally in the destination country, necessitating imports. This latter occurrence is a direct effect of tourism and can be demonstrated in an international trade model in which customers can consume commodities imported from other countries. As a result, transaction volume is heavily influenced by both imported product consumption and changes in spending patterns in a tourist destination due to its proximity to the tourist's place of origin. Fischer and Gil-Alana (2006) noticed such a situation when they observed the influence of Spanish tourist visits to Germany, which compelled Germany to buy wines from Spain. In other words, tourism influences the demand for imported goods. From a policy standpoint, this means that the impact of tourism on a destination country is not simply immediate and short-term, but can also be long-term. As a result, tourism can act as a catalyst for economic development. Fadilah et al. (2018) got similar results, concluding that the number of international tourist visits is pro-cyclical to Indonesia's economic growth, with an increase in the number of foreign tourists serving as a primary driver of growth. In this con-

text, Aradhyula and Tronstad (2003) emphasized the importance of the government's involvement in actively decreasing asymmetric knowledge about trade potential by supporting corporate explorations and tourist arrivals.

Inflation, as measured by the difference in inflation rates between Indonesia and the tourist's home country, has a negative but minor impact on trade. This suggests that the wider the difference between Indonesian and partner nation inflation, the lower the bilateral trade intensity between the two. Inflation is defined as an increase in a country's overall price level. The higher a country's inflation rate, the higher its prices relative to other countries' pricing, lowering its products' competitiveness in the international market. This fact emphasizes the necessity of the government's ability to control inflation rate in order to keep it from exceeding world inflation, as such inflation rate would harm export performance.

The influence of the currency rate, like that of inflation, does not appear to be considerable. The negative exchange rate coefficient implies that the stronger the IDR relative to the currency of the partner country, the higher the trade intensity index between Indonesia and that particular country. However, because bilateral trade between Indonesia and its partner countries is primarily conducted in US dollars, the effect is negligible. In the case of Indonesia, the trade balance reflects a considerable volume of imports, particularly capital goods and industrial raw materials. The IDR's appreciation lowers import costs, allowing final product prices to fall. This decrease in product costs in Indonesia increases demand and boosts the economy. Furthermore, currency rate appreciation is now a typical phenomenon worldwide, not only in Indonesia, particularly when a superpower country like the United States pursues a loose monetary policy. Because of this policy, US Dollar liquidity flows into developing countries such as Indonesia. As a result, it is feared that Indonesia's exchange rate will rise, undermining export performance.

The trade intensity index is significantly influenced by population and GDP per capita. Short-term population consequences are unfavorable and significant. This means that the bigger the population of the nation of origin of the visitors, the lower Indonesia's trade intensity with that country. This is conceivable because the increased population in partner countries signals extra means of production that can stimulate domestic output development. As a result, the volume of Indonesian commerce with that country will decline. Another indicator is the nature of the exchanged products, which are typically labor-demanding. When the population of the partner countries grows, they tend to specialize in labor-intensive items as well. As a result, the intensity of Indonesia's trade with that country will fall. However, the population effect is beneficial in the long run and stays large. When population growth is accompanied by advances in knowledge and technology, the impact of economies of scale in developed countries will fade.

The GDP per capita of partner countries continues to rise and is significant. This demonstrates that higher purchasing power in partner countries will almost probably drive increased exports to that country. And this holds true in both the short and long term. The entrance of international tourists has a

favorable effect on bilateral trade intensity between Indonesia and the countries of origin of the tourists.

So far, the government has focused on mass tourist policies. As a result, travel in Indonesia is characterized as low-cost tourism. Based on the findings of the above analysis, tourism policy can begin to shift due to its considerable impact on Indonesia's international trade and as a major source of foreign exchange. Tourism promotion should concentrate on countries that are physically and culturally distinct from Indonesia. This is especially true for high-income countries that focus on capital/technology-intensive products.

CONCLUSION

Over the last decade, the tourism industry has expanded tremendously. This may be seen not only in the growing number of visitors visiting abroad, but also in the growing number of tourist destination countries around the world. Numerous countries that have achieved great success have not only attracted large numbers of tourists, but have also made tourism a source of revenue. Some of the regions highlighted as new tourist destinations include Asia, North Africa, Latin America, and the Caribbean. Apart from business travel and other purposes, pleasure is the most common reason for overseas tourists.

When it comes to international trade literature, the tourist industry receives very little attention, despite its size in comparison to other foreign expenditure items. Several earlier studies, however, have found a correlation between tourism and foreign trade. According to the findings of this study, tourism has a favorable impact on the intensity of Indonesia's international trade with the countries of origin of international tourists. When the error correction term (ECT) value is less than 0.5, it shows that the speed of adjustment of Indonesia's bilateral trade intensity towards its initial equilibrium is rather slow. However, the findings reveal a cointegration between Indonesia's foreign commerce and its explanatory variables. This emphasizes the significance of the Indonesian government pursuing all possible tourism markets. Quality tourism, not "cheap tourism," must be the primary goal of all tourism stakeholders.

Apart from tourism, the inflation rate in Indonesia and the inflation rate in its partner nations have an impact on bilateral trade, but not the bilateral currency exchange rate. This is because most commercial transactions are conducted in US dollars rather than indigenous currencies. The influence of inflation suggests a negative link, with a greater gap between Indonesia's inflation and that of a partner country resulting in lower trade intensity between the two countries. This is because product prices in Indonesia will be significantly higher than prices in partner nations (or global pricing). Since a result, the Indonesian government, in collaboration with all tourism stakeholders, is expected to continuously expand Indonesia's tourism potentials, since they will influence the number of tourist visits and stimulate more trade cooperation between Indonesia and other nations. Given these findings, it is critical for the government to investigate tourism markets in countries that are actively engaged in international trade with Indonesia as well as nations that have comparative advantages that are distinct from Indonesia.

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