Openness, Labor, and Tourism; Case Study of ASEAN Countries

Muslim Kamil  
Borobudur University  
Jakarta, Indonesia  
khasanahindonesia2000@gmail.com

Marshall Pratama  
Borobudur University  
Jakarta, Indonesia  
khasanahindonesia2000@gmail.com

M. Noor Arief  
Ganesha College of Economics  
Jakarta, Indonesia  
khasanahindonesia2000@gmail.com

Abstract—The ASEAN Economic Community was formed with the aim of achieving the perfection of economic integration in the ASEAN region which is believed to provide tangible benefits for all elements of society. The phenomenon of globalization can be seen from the growth of cross-border economic activities in various forms. Among other things, two forms of economic activity are increasingly globalization, namely trade flows and international capital flows. This study uses a quantitative method with panel data to the 2011-2015 period by combining 10 ASEAN countries (Indonesia, Malaysia, Singapore, Thailand, Philippines, Vietnam, Myanmar, Brunei, Laos, Cambodia). The influence of economic openness, labor on the number of arrival of ASEAN countries needs to be improved even though it is good. The 2014-2015 Numerous Arrival of all ASEAN countries experienced good growth. The problem is how to keep this Number of Arrival getting better. Of course the role of the digital economy is very much needed, the increasing internet user growth will have a positive impact on increasing tourism in ASEAN countries which will help better economic openness in ASEAN countries.

Keywords—openness; labor; tourism; ASEAN

1. INTRODUCTION

The ASEAN Economic Community (AEC) is an initiative of ASEAN countries to realize ASEAN into a solid and calculated economic area in the international economic arena. AEC was formed with the aim of achieving economic integration in the ASEAN region which is believed to provide real benefits for all elements of society. According to [1], there are at least 4 (four) things that become the focus of the implementation of the AEC, first, countries in the market unity and production base. Second, AEC will be used as a region with a very high level of competition. Third, the AEC will be used as a joint with equitable economic development. Fourth, the AEC will be integrated into equitable economic development among the entire ASEAN region.

The increasing variety of products in the domestic market today cannot be separated from the increasingly open role of international trade. When various regulations that are hindering nature agree to be reduced, the market becomes more open and the traffic of goods becomes higher. In openness, a party can consume goods or services that it does not produce. In openness too, resources will be allocated to sectors where the country has comparative and competitive advantages according to [2]. The economy in the world is now increasingly open, for that every country is trying to improve competitiveness to gain trade form gains.

In order to encourage competitiveness in the global production chain, the use of technology and increasing innovation are inevitable. At present, ASEAN has no legal umbrella for regulating the digital economy. Ironically, the number of internet penetration of the ASEAN population continues to increase by around 10% over the past 5 years. What's more, internet infrastructure in ASEAN is seen as increasingly progressive. Singapore's average internet speed (118 Mbps) has exceeded the US (36.6 Mbps). Nevertheless, ASEAN has the ASEAN ICT Master Plan 2020 which aims to create an ASEAN community that is digitally integrated. The digital economy industry (e-commerce) can be seen as a challenge and a challenge. As an opportunity because it provides more space for the business world so that it encourages the emergence of start-ups and new jobs, while as a challenge because of the immaturity of regulations and infrastructure for the industry so that e-commerce businesses have not been maximally competitive, so the implementation of AEC encourages the occurrence of competition in the e-commerce world.

When the country's economy becomes more open and digital readiness is better, it is expected to influence the tourism sector. As a source of revenue, tourism is inseparable from the influence of the number of tourist visits. The advancement of the tourism sector in an area is very dependent on the number of tourists visiting. The arrival of tourists will bring acceptance to the area he visited. For foreign tourists coming from abroad, their arrival will bring in foreign exchange in the country. The increasing number of tourists visiting will have a positive impact on tourist destinations, especially as a source of regional income [3].

[4] jointly Number of Hotels, Rooms, Domestic Travelers, Foreign Tourists and Number of SMEs have a significant effect
on the development of Labor Absorption in 9 cities in East Java Province, while [5] disclosure variable shows that an increase in trade openness is 1 percent will cause economic growth (approached by an increase in GDP) by 0.097 percent, ceteris paribus.

II. LITERATURE REVIEW

A. Openness

The increasing variety of products in the domestic market today cannot be separated from the increasingly open role of international trade. When various regulations that are hindering nature agree to be reduced, the market becomes more open and the traffic of goods becomes higher. In openness, a party can consume goods or services that it does not produce. In openness too, resources will be allocated to sectors where the country has comparative and competitive advantages according to [2]. The economy in the world is now increasingly open, for that every country is trying to improve competitiveness to gain trade form gains.

According [6] in theory of economic openness promises challenges and opportunities that the more open trade between one country to another can provide opportunities increasing the market access of domestic products in the international market as well as challenges to the competitiveness of domestic industries against foreign products. However, the benefits received by each country from economic openness do not show the same pattern and magnitude. For some developing countries, openness has a negative impact on economic growth but will be positively affected by developed countries that have optimized their openness to trade.

According to [7] service Openness has a significant effect on economic growth. While [6] trade openness significantly and consistently has a negative effect on manufacturing value added, the variable number of labor significantly and consistently has a positive effect on manufacturing value added.

B. Labor

According to [8] explains Labor is defined as a population in the working-age population. Whereas the definition of labor is contained in Law No. 25 of 1997 concerning Manpower, namely every man or woman who is in and / or will do work, both inside and outside the employment relationship to produce goods or services to fulfill community needs. According to [9] labor is a population that has an age within the working age limit. The purpose of choosing the age limit is so that the definition given is as possible as describing the actual reality. Each country chooses a different age limit because the situation of labor in each country is also different, so that the working age limit between countries is not the same. In Indonesia, the minimum age limit for labor is 15 years without maximum limits.

According to [10] the variable Labor has a positive influence on GDP in North Sumatra. Meanwhile, according to [11] the Tomohon City GDP has increased from year to year in every sector in Tomohon, which has caused labor to be absorbed from year to year to increase as it is followed by an increase in the number of GDP.

C. Tourism

[12] tourism is one of the basic human needs. According to [13] tourists arriving in a foreign country, both individually and in groups, whatever their travel destination, will spend their money while staying in the destination to pay for services or tourist goods and buy services or goods that are not related to travel. The total amount of money spent is the amount of state revenue from the tourism sector and a pattern of consumption of tourists in the country. The more consumption of tourists, the more tourism services produced in Trade, Hotels and Restaurants. Theoretically, the more the number of tourists and the longer tourists stay in a tourist destination, the more money spent in the tourist destination, at least for food, drink and lodging during their stay in the area. Various kinds of tourist needs during the tour it will cause consumptive symptoms for products in tourist destinations. With the consumptive activities of both foreign and domestic tourists, it will increase the income received by business owners in the tourism industry including Trade, Hotels and Restaurants which from payments for services received by tourists which will increase the amount of tax revenues and revenue from the Sulawesi tourism sector North.

According to Ida Austriana (2005) in [12] the longer tourists stay in a tourist destination, the more money spent in the tourist destination, at least for food, drink and lodging during their stay in the area. Various types of tourist needs during the tour will cause consumptive symptoms for products in tourist destinations. With the consumptive activities of both foreign and domestic tourists, it will increase revenue from the tourism sector of a region.

According to Mill (2000) in [12] foreign tourists are every person who visits a country, other than the country usually occupied for a period of approximately 24 hours. Foreign tourists are suppliers of foreign exchange reserves for the area they visit. The entry of foreign tourists will increase foreign exchange, which means that it will strengthen the balance of payments and trade.

According to [14], the results of research on tourism are first, with various tourism potentials owned, Batu City Government is expected to pay more attention to and increase trade, hotel and restaurant sector businesses in order to create jobs for the people of Batu City. Secondly, the trade, hotel and restaurant sector in the Perl Stone City developed further. The development of this sector will be able to encourage other economic sectors so that in the end it will improve the economy of Batu City as a whole. Third, Based on the results of multiple regression analysis, income and labor should be used as a foundation for the Batu City government in taking the policy of developing the economic sector of Batu City. Fourth, from the results of this study the trade sector, hotel and restaurant rest
has the potential to be developed so as to increase regional income, employment and eliminate poverty in Batu City.

II. METHODS

The population that became the object in this study came from secondary data obtained from the company Knoema, one of the digital economic data provider companies. The sampling method uses purposive sampling method, namely the determination of samples with certain considerations. In this study the sample was used using panel data obtained by time series data for 5 years and cross section data of 10 ASEAN countries namely Indonesia, Malaysia, Singapore, Philippines, Thailand, Vietnam, Myanmar, Laos, Brunei, Cambodia.

A. Variable Identification

Research variables are independent and dependent. For the independent variables that exist in this study are Openness (X1), Labor (X2) while the dependent variable Tourism (Y).

B. Data Analysis

The analytical method used in this study is a quantitative technique that uses mathematical and statistical models that are classified in certain categories to facilitate analysis using the Evews program. While the analysis technique used is multiple linear regression analysis techniques to see the relationship between the independent variable and the dependent variable.

The data used is the panel data there are three kinds of data panel estimation techniques, namely pooled least square, fixed effect model, and random effect model. Test the suitability of the model to determine the most appropriate model is to use the Chow test and Hausman test. After that, the classic assumption test is normality test, autocorrelation test and also hypothesis testing, namely partial t test, simultaneous F test, test of the coefficient of determination.

C. Econometry Model

[15] in this study uses the basic model of solow in input and output. While for the degree of economic openness of each country can be seen from the magnitude of the openness index, the sum of the export value (X) and import (M) to gross domestic product (GDP), the more the large index number obtained means the economy of the country concerned is increasingly open. namely:

\[
\text{Openness} = \frac{(X + M) \times 100}{\text{GDP}}
\]

Where \( X = \text{Export}, \ M = \text{Import}, \ \text{GDP} \)

The analysis technique in this study is panel data regression analysis, while the regression model in the form of logs can be written as follows:

\[
\ln Y_{it} = \beta_0 + \beta_1 \ln X_{1it} + \beta_2 \ln X_{2it} + e_{it}
\]

Where:

\( Y = \text{Tourism}; \ X_1 = \text{Openness}; \ X_2 = \text{Labor}, \ i = \text{Country}; \ \text{and } t = \text{time} \).

IV. RESULT

There are three estimations of panel data regression, namely common effects (OLS), fixed effect models (FEM) or Random Effect (REM) models. Determining the panel model that will be used in this study, several tests must be carried out. Chow Test that can be used to determine whether the panel data model can be regressed with common effect models (OLS), fixed effect models (FEM) or Random Effect (REM) models. Chow test is used to determine whether the panel data model is regressed with the Common Effect model or with the Fixed Effect model. From chow test, we choose fixed effect model.

**TABLE I. FIXED EFFECT MODEL**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPENES</td>
<td>5632914</td>
<td>168997</td>
<td>3.917518</td>
<td>0.0045</td>
</tr>
<tr>
<td>LABOR</td>
<td>0.103294</td>
<td>0.109165</td>
<td>0.950292</td>
<td>0.3405</td>
</tr>
<tr>
<td>C</td>
<td>-48375.76</td>
<td>6788564</td>
<td>-0.714712</td>
<td>0.4792</td>
</tr>
</tbody>
</table>

**Effects Specification**

<table>
<thead>
<tr>
<th>Cross-section fixed (dummy variables)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
</tr>
<tr>
<td>S.E. of regression</td>
</tr>
<tr>
<td>Sum squared resid</td>
</tr>
<tr>
<td>Log likelihood</td>
</tr>
<tr>
<td>F-statistic</td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
</tr>
</tbody>
</table>

From the results of panel data regression with the selected model is the Fixed Effect model, the regression model equation is obtained as follows:

\[
\text{TOURISM} = 5632914 (\text{OPENNESS}) + 0.163294 (\text{LABOR}) + e
\]

A. T test (Partial)

Effect of Openness on Tourism. The t-statistical probability value obtained is 0.0045, then the statistical probability \( \alpha = 5\% \) is 0.0045 <0.05. So that it can be concluded that the openness variable partially influences the significance of the Tourism variable.

Effect of Labor on Tourism. The obtained t-statistical probability value is 0.3405. Then the statistical probability \( \alpha = 5\% \) is 0.3405 >0.05. So it can be concluded that the labor variable partially not influences but the positive significance of the Tourism variable.
B. F Test (Simultaneous)

From the calculation of F value, it is known that F arithmetic > F table (150.4830 > 3.18) then H0 is accepted and H1 is rejected (F arithmetic is in H1 reception area). Then also the probability (prob.) Of the table above is equal to 0.000<0.005, then H0 is accepted and H1 is rejected. So that simultaneously or together the independent variables have a significant effect on the dependent variable.

C. Coefficient Determination

Based on the table above, the Adjusted R-Square value is 0.9775. This shows that the model is able to explain 97.75% of the dependent variable, while the remaining 2.25% is influenced by other factors outside the regression model.

<table>
<thead>
<tr>
<th>Year</th>
<th>Brunei</th>
<th>Malaysia</th>
<th>Singapore</th>
<th>Thailand</th>
<th>Philippines</th>
<th>Vietnam</th>
<th>Indonesia</th>
<th>Laos</th>
<th>Brunei</th>
<th>Kamboja</th>
</tr>
</thead>
</table>

The influence of economic openness, labor on the number of arrival of ASEAN countries needs to be improved even though it is good. Table II illustrates the 2014-2015 Tourism (Numeric Arrival) growth of all ASEAN countries experiencing good growth. The problem is how to keep this Number of Arrival getting better. Of course the role of the labor is very much needed, skill of labor will have a positive impact on increasing tourism in ASEAN countries which will help better economic openness in ASEAN countries.

V. CONCLUSION

This study aims to analyze the relationship between Openness, labor towards ASEAN countries tourism in the period 2011-2015 using panel data regression analysis techniques. Based on the results of statistical tests, the following conclusions can be drawn:

1. From T test (Partial), based on the results, Effect of Openness on Tourism, The t-statistical probability value obtained is 0.0045, then the statistical probability <α = 5% is 0.0045 <0.05. So that it can be concluded that the opens variable partially influences the significance of the Tourism variable. Effect of Labor on Tourism, The obtained t-statistical probability value is 0.3405. Then the statistical probability <α = 5% is 0.3405 >0.05. So it can be concluded that the labor variable partially not influences but the positive significance of the Tourism variable.

2. From F Test (Simultaneous), the calculation of F value, it is known that F arithmetic > F table (150.4830 > 3.18) then H0 is accepted and H1 is rejected (F arithmetic is in H1 reception area). Then also the probability (prob.) Of the table above is equal to 0.000<0.005, then H0 is accepted and H1 is rejected. So that simultaneously or together the independent variables have a significant effect on the dependent variable. Coefficient Determination, the Adjusted R-Square value is 0.9775. This shows that the model is able to explain 97.75% of the dependent variable, while the remaining 2.25% is influenced by other factors outside the regression model.

3. The results of this study show ASEAN countries have been good in Openses, labor and tourism but still need to be further improved. This study only analyzes the influence of Openses, Labor, on tourism for ASEAN countries for the years 2011-2015, so that the results will be different if it is outside the year or also use other independent variables.

REFERENCES