Research Article

Foreign Direct Investment as Economic Globalization Indicators that Affect the International Trade in Europe

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Abstract

This study aims to prove and examine the economic globalization indicators that affect international trade in Europe. This research uses data from countries in the European continent. The sample of countries consists of twenty (20) countries and this study uses the time series data method, which is for four (4) years, starting from 2014 to 2017. The method used in data collection is secondary data sourced from the European Statistics Recovery Dashboard. This study aims to analyze and prove the hypotesis that occurs in the Foreign Direct Investment (X_1), Research and Development (X_2), and Employment (X_3), on the International Trade (Y), which is tested empirically using the SmartPLS version 3.0. The result of the analysis show that the economic globalization indicators consist of Foreign Direct Investment, Research and Development, and Employment can affect International Trade.

Keywords: Foreign Direct Investment, Research and Development, Employment, and International Trade.

1. Introduction

Globalization is a process of change as a whole experienced by the world community as a result of the integration of the results of cooperation between countries in the world. The impact of globalization makes all countries in the world connected to one another. One example is the economic globalization that occurs in the current era. Globalization that occurs in the economic sector has greatly influenced trade between several countries that are free (Ramazanov et al., 2021). Because basically globalization aims to remove the obstacles that are the problem. Where the obstacles that become this problem occur in international trade. Economic globalization can be defined as a process that occurs when economics enters a country (Mukhtorovna, 2021). This science enters the scope of the world without recognizing any boundaries in a country or region when the process occurs. With the reason that this globalization only sees the world as a unit. Where a unit has the aim of creating a very wide and free trade area.

Entering the era of globalization in the global economy, there are more obstacles and competition in the world of economy. Globalization that is sweeping the world further expands international trade.

In the era of globalization which is getting more advanced currently, will lead to competition in the field of international trade (Kurtoglu, 2021). Globalization in the economic sector will lead to the development of an economic system towards an open economy between countries. Dasgupta (2021) stated that the economic globalization is a fundamental and structural change in the world economy, in which this process will continue at an increasingly rapid rate and changing patterns of needs of the world community (Shavshukov & Zhuravleva, 2020). Where countries have more flexibility in establishing trade cooperation in order to increase their economic growth. Economic growth is an important indicator to see the success of economic development in a country in addition to other indicators.

International trade can affect a country's economic growth. This happens because in international trade all countries will compete in international market. International trade involves one country with another and makes countries in the world more bound (Rymarczyk, 2021). International trade agreements have been carried out by almost all countries in the world. In addition, the movement of capital is also increasingly free between countries. This is what in turn makes a country more related to other countries. With the existence of international trade, the world economic activity is also increasing. This increase in the global economy provides good results in the form of perfect world economic growth. The increasingly rapid development of the globalized economy can trigger changes in a country's macro indicators. This development led to international trade. In international trade there Foreign Direct Investment, Research and Development, and Employment.

2. Literature Review

2.1 Foreign Direct Investment

Foreign direct investment is defined as where an investor in the economic sphere of a country is interested in business in the scope of the economy of another country by investing directly (Paul & Feliciano, 2021). Foreign direct investment can be defined as the amount of long-term investment in a company in another country. Foreign direct investment is one of the characteristics of the global economic system.

According to Breda et al (2021) what is meant by foreign direct investment is the flow of international capital where companies from one country establish or expand their companies in other countries. Therefore, there is not only a transfer of resources, but also the imposition of control over companies abroad. Foreign direct investment aims to help the economic growth of a country.

Qureshi (2021) describes the advantages of foreign direct investment, namely that the flow of capital ownership by diversifying through investment. The opening of the door to foreign capital through the foreign investment law number 1 of 1967 to increase the flow of foreign capital to increase rapidly and to increase domestic development. Foreign direct investment can take the form of direct investment, technology and managerial skills or indirectly through the effect of knowledge dissemination in local companies.

2.2 Research and Development

Research and development is a research method used to produce certain products and test the effectiveness of these products (Sodhi et al., 2021). To be able to produce certain products, research that is needs analysis is used and to test the affectiveness of these products so that they can function in the wider community, research is needed to test these products. Research activities are carried out to obtain information about user needs while development activities are carried out to produce learning tools.

The purpose of research and development is to inform the decision making process throughout the development of a product to develop and the developer's ability to create things of this type in future situations.

2.3 Employment

Employment is the number of job oppurtunities available for the workforce or a situation that describes the availibility of jobs that are ready to be filled by job seekers. The types of employment namely: (Lee, 2021)

- Full employment is a situation that occurs or takes place in an economy characterized by all people who are able and willing to work, whether employed or have the oppurtunity to work.
- Under employment is a condition that occurs when the number of jobs is not sufficient to accommodate the number of workers.

2.4 International Trade

International trade is trade carried out by a country with other countries on the basis of mutual agreement (Andelekke & Gichuru, 2021). International trade is one of means necessary for a country to achieve it's national development goals. The purpose of international trade is to meet the needs of one country, but the needs exist in other countries. International trade is one of the important aspects in supporting a country's economic growth. Because of the benefits of international trade, namely to create mutual assistance between countries, strengthen relations between countries and improve the welfare of a country.

With international trade, every country in the world can exchange the resources owned by each country, with the aim that there is no excess or lack of resources in each country in the world (Serrano & Valbuena, 2021). International trade barriers are regulations or government regulations that restrict free trade. The effect of international trade is felt on prices, national income and the level of employment of the countries involved.

3. Method

This study uses data analysis methods using SmartPLS software version 3.0. which is run on computer media. The data used secondary data sourced from the European Statistical Recovery Dashboard. The secondary data used are Foreign Direct Investment, Research and Development, Employment, and International Trade in Europe in 2014-2017. All existing data are collected and can be used as data in this research.

4. Result and Discussion

4.1 Result

4.1.1. Descriptive Data

The following data are the results of testing using the SmartPLS version 3.0 statistical tool, the results show descriptive statistics of the variables Foreign Direct Investment (X_1), Research and Development (X_2), Employment (X_3), and International Trade (Y). Where will be found the mean, median, minimum value, maximum value, standard deviation, excess quartosis and skewness of each variable.

This is the result from SmartPLS version 3.0 about descriptive statistics can be show on Table 1:

Table 1. Descriptive Statistics

Data	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
X1 (Foreign Direct Investment)	0.000	1427.750	1332.000	0.000	3945.000	1184.045	-0.290	0.705
X2 (Research and Development)	0.000	1377.350	1509.000	0.000	3905.000	1091.962	0.757	0.903
X3 (Employment)	0.000	1540.850	1337.000	0.000	3992.000	1039.533	0.717	0.974
Y (International Trade)	0.000	1262.950	1353.000	0.000	3813.000	1050.856	-0.081	0.606

Source: Results of processing with SmartPLS (2021)

Based on Descriptive Statistics Table, it can be seen that the minimum value of Foreign Direct Investment (X_1) is 0.000 and the highest value is 3945.000 with average value is 1427.750 and the median value 1332.000. The average value of Research and Development (X_2) 1377.350 with the minimum value is 0.000, the highest value is 3905.000 and the median value is 1509.000. The average value of Employment (X_3) is 1540.850 with the minimum value is 0.000, the highest value is 3992.000 and the median value is 1337.000. For the dependent variable, International Trade (Y) it can be seen that the average value of it is 1262.950 with the minimum value is 0.000, the highest value is 3813.000 and the median value is 1353.000.

The result of t-statistics value can be presented through tables and model path coefficients as in Figure 1 below:
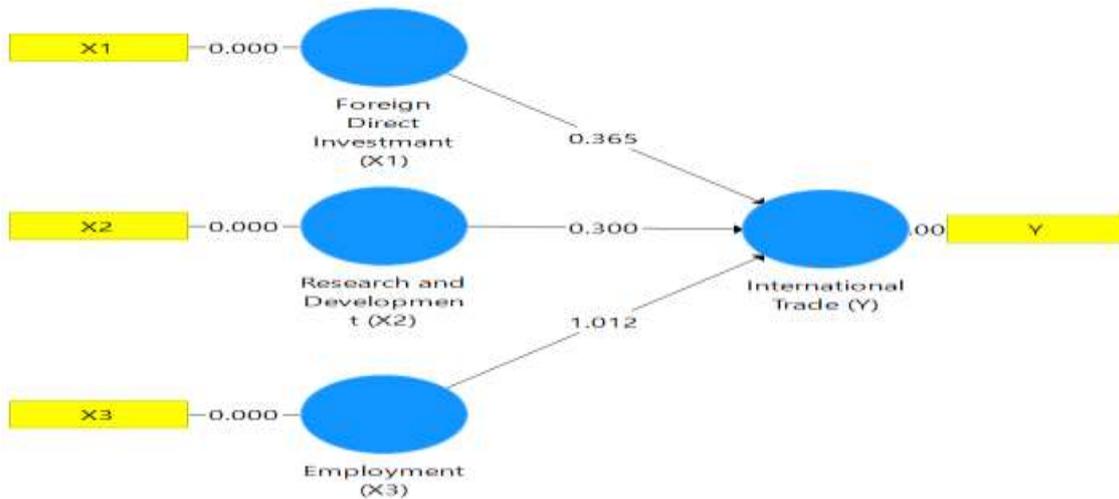
Source: Results of processing with SmartPLS (2021)
Figure 1. Overall Model With Coefficients

Based on the model in Figure, it can be seen Foreign Direct Investment, Researh and Development, and Employment permits play a major role in the International Trade in Europe in 2014-2017.

This is the result from SmartPLS version 3.0 about Path Coefficients can be show on Table 2:

Table 2. Path Coefficients

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
Employment (X₃) -> International Trade (Y)	0,999	0,794	0,988	1,012	**0,312**
Foreign Direct Investment (X₁) -> International Trade (Y)	-0,167	-0,113	0,457	0,365	**0,715**
Research and Development (X₂) -> International Trade (Y)	-0,257	-0,091	0,857	0,300	**0,764**

Source: PLS output (2021)

Based on the hypothesis test in Table 2, it can be seen that Foreign Direct Investment (X₁) is an independent variable which is not the major effect on the International Trade (Y) as dependent variable. It can be seen from the statistical t value of 0.365 > from the t table value of 1.978 and this can be proven by the original sample value of -0.167 and the not significant of 0.715 < 0.05 which means that Foreign Direct Investment (X₁) not significant towards International Trade in Europe.

The Research and Development (X_2) is an independent variable which is not the major effect on the International Trade in Europe in 2014-2017. It can be proven in Table 2 that P values 0.764 that not significant or less than 0.05 and the statistical t value of 0.300 < from t table value of 1.978 which means that Reserch and Development (X_2) is not the major effect on the International Trade in Europe in 2014-2017. The Employment (X_3) is an independent variabel that has a positive and significant effect towards International Trade. It can be seen in Table 2 that the statistical t value of 1.012 > from the t table value 0f 1.978 and this can be proven by the p values of 0.312 < 0.05 which means that Employment (X_3) has positive effect and significant towards International Trade in Europe.

4.1.1 Predictive Relevance
This is the result from SmartPLS version 3.0 about Predictive Relevance can be show on table 3:

Table 3 Predictive Relevance

	Employment (X_3)	Foreign Direct Investment (X_1)	International Trade (Y)	Research and Development (X_2)
Employment (X_3)			0,999	
Foreign Direct Investment (X_1)			-0,167	
International Trade (Y)				
Research and Development (X_2)			-0,257	

Source: PLS output (2021)

In Table 3 is shown that there is a direct relationship between each independent variable on the dependent variable. Employment is independent variable has positive relationship on International Trade a dependent variable. Foreign Direct Investment and Research and Development have a negative relationship on International Trade.

4.1.3 Determination Coefficient Test Results
This is the results from SmartPLS version 3 about Determination Coefficients Test Results can be show on Table 4:

Table 4. Determination Coefficients Test Results

R Square

	R Square	R Square Adjusted
International Trade (Y)	0,494	0,399

Source: PLS output (2021)

The results of testing the the cofficients of determination in Table 4, the value of R Square is 0.494 and the value Adjusted R Square is 0.399. Thus, the value of Rsquare illustrates that the ability of all independent variables, namely crop output Foreign Direct Investment (X1), Research and Development (X2), Employment (X3) in this study can explain International Trade (Y) as the dependent variable.

4.2. Discussion

From the predictive relevance, it can be seen that Employment is the variable that has the greatest influence on International Trade. It can be shown by the predictive value is 0.999. The Employment has positive effect towards International Trade. It means that the higher the Employment, then the International Trade level will also be higher. Employment can occur due to many factors. These factors include increasing labour force but decreasing employment oppurtinities (job vacancy), lack of education or training, increasing population, limited oppurtinities to open a business and others (Heyman et al, 2021). When people lose their job, they will not get additional income, so the income received is reduced and and can lead to an increase in International Trade. An increase in the International Trade can disrupt economic stability in a country. According to Eurostat, there were consistent signs of strengthening in the labour market, as there were modest annual increases in the job vacancy rate for the period 2014-2017.

5. Conclusions

Based on the results of the analysis and testing of research data on "Economic Globalization Indicators that Affect the International Trade In Europe" the following conclusions can be obtained:

- Employment has a positive and significant effect on International Trade. In other words, if there is an increase in total Employment, International Trade will also increase.
- Foreign Direct Investment and Research and Development have not effect on International Trade. It means that if there is an increase or decrease in Foreign Direct Investment and Research and Development it will not have a significant positive effect on International Trade during 2014-2017.

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