

# Trade Performance Analysis of Indonesia and Malaysia to the Organization of Islamic Cooperation

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**Abstract**—Along with its development, OIC was able to contribute to the economy, especially in the flow of international trade. Indonesia and Malaysia are the main actors in increasing exports in the OIC countries but Indonesia's exports in 2014-2015 in intra-OIC trade fell by 6.8%, while Malaysian exports in intra-OIC trade fell by 16.8%. This study aims to analyze the changing of specialization and competitiveness of Indonesian and Malaysian primary commodities to the OIC countries and to determine the influence of variables such as distance, GDP's origin country, GDP's destination country, exchange rates, openness, populations and control of corruption's destination country of Indonesian and Malaysian export performance to the OIC. Using balanced panel data for 10 years, from 2008 to 2017. Analyzing the data using gravity model framework, results show that, there is significance in both countries. By using random effect estimation, the regression results show that GDP and openness have a positive and significant in both countries, the exchange rate and distance have a negative and significant in both countries. In addition, with the RSCA (Revealed Symmetric Comparative Advantage) index. RSCA<sub>ij</sub> index shows index of competitiveness, its value has intervals between -1 and 1 ( $-1 \leq RSCA_{ij} \leq 1$ ). RSCA<sub>ij</sub> more than zero means the country *i* has a comparative advantage in the product group *j*. Conversely, RSCA<sub>ij</sub> less than zero means that the country *i* has no comparative advantage in the product group *j*. Results show that, there has been a changing pattern of primary commodities competitiveness within a span of 10 years in Indonesia and Malaysia.

**Keywords**— Trade performance; Panel data; RSCA index; OIC countries

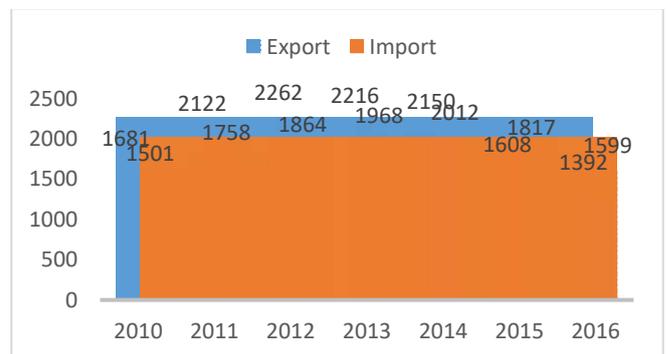
## I. INTRODUCTION

The acceleration of global trade flows is becoming a trend in discussions of world economic experts. In 2017 global volumes of exports and imports were recorded at 4.9% which was the highest level since 2011. After the financial crisis in 2008, the volume of trade in goods only grew by 1.8 percent, then increased towards 2017. Export growth can be achieved by maximizing the potential in a country. David Ricardo's theory describes that a country will export commodities that use inputs that are relatively more abundant than the use of input from other countries and will import commodities that use inputs that are relatively rarer than the use of input from other countries. A country is expected to specialize in products that have high competitiveness for other products in certain regions. The Organization of Islamic Cooperation is a substantial part of world development which reflects a high level of heterogeneity and divergence in terms of socio-economic development. In a conference in Rabat, Morocco 12 Rajab 1389 or September 25, 1969, was the response of Muslim countries to the burning of the Al Aqsa mosque in 1969. Recognized as the second largest organization in the world, OIC (Organization for Islamic Cooperation) became an

interesting discussion in the dynamics trading. Along with its development, OKI was able to contribute to the economy, especially in the flow of international trade. The implementation of the Trade Preference System among OIC member countries (TPS-OIC) as a means to establish an Islamic Joint Market (ICM), the establishment of the Islamic Development Bank (IDB), the existence of world seminars and forums such as the Islamic Economic Forum (WIFE) are examples of program initiatives specifically intended to promote, enhance and strengthen economic relations. Today the OIC is carrying out 'OIC 2025' to overcome problems arising from political and economic developments in the world and to assist OIC countries in achieving sustainable development.

In 2010 the OIC's trade performance showed quite satisfactory value. But towards 2014 the OIC's contribution to the world began to decline slowly. Reporting from the Islamic Center for Development of Trade report, the decline in trade was a result of tariff and non-tariff barriers to trade and a fragile global economic and trade environment. 12.7% of the OIC's trade to the world declined in 2015 to 2016. Changes in the level of the leading economic growth of the OIC countries directly have an impact on the global and intra-Community trade of these Member States. The volume of intra OIC trade reached 694.2 billion USD in 2015 and amounted to 556.3 billion USD in 2016, mathematically intra-OIC trade decreased by almost 20%. The OIC's economic environment is one of the factors that has the potential to cause this decline.

Figure I. Export Import OIC to the World



Source: Islamic Centre for Development of Trade Report, (2017). Author Estimation

Departing from the problem of the declining exports in the OIC countries, the researcher raised the OIC as the object in this research. This study focuses on the countries of Indonesia and Malaysia as countries of origin of research while other OIC member countries as partner countries or trade destinations. The writer want to know the factors that influence the export performance of both countries of origin as well as how changes

in the specifications of primary products are incorporated in the ETA (Empirical Trade Analysis) classification of Indonesia and Malaysia.

The purpose of this study is to find out whether Indonesia and Malaysia specialize in commodities with high competitiveness in the OIC countries and how the influence of the standard variables of gravity models that is distance, country of origin GDP, and destination country GDP on Indonesian and Malaysian exports to the OIC in 2008- 2017 and other variables, there are the exchange rate (reporter), openness (partners), population (partners) and control of corruption (partners) on the export performance of Indonesia and Malaysia to the OIC in 2008-2017.

## II. LITERATURE REVIEW

The research conducted by Donna, Widodo, & Adiningsih (2018) analyzes the movement of patterns of trade specialization in the MENA region. The results of the study show that the MENA region experienced de-specialization rather than specialization in 2000-2010. Qatar has the most dynamic specialization de-specialty in all industries, except in Primary Intensive Industry. Saudi Arabia has the most dynamic de-specialization in Primary Intensive Industry. Fitriana, Huang, & Mustadjab (2014) conducted a study to see comparative advantage in the sugar market between Brazil and ASEAN countries in 2005-2011. The results show that Brazil and Thailand have a strong comparative advantage over sugar exports compared to other countries. Esquivias & Heriqbaldi (2013) in a study entitled 'An Analysis in Comparative Advantage in Manufacturing Sector As A Determinant of Trade Expansion: The Indonesian and Mexican Case 1989-2011' states that Indonesia is still focusing on products using traditional factors even though there are products new. Mexico focuses on new Industrial product products. The two countries experienced changes in the manufacturing sector in 23 years from 1989-2011.

Bashir & Xu (2014) explains that foreign political instability increases export origin. In addition, instability in major trading partners can increase exports higher than small trading partners. GDP and population in both countries have a significant positive effect. While the real exchange rate produces a positive sign and is not statistically significant. Another study conducted by Waheed & Abbas (2015) in his research entitled "Export Markets Potential for Bahrain: A Data Analysis Panel" states that the GDP of the two countries has a significant positive effect on bilateral export flows. Negative distance coefficient but low elasticity. The bilateral real exchange rate elasticity proved positive and very significant. The coefficient of the partner population and the variable of foreign currency reserves is positive and very significant. Gómez and Herrera (2013) used a panel data model from 1980-2008 to compare alternative methods for bilateral trade using gravity models. The results show that GDP in the bilateral relations of the two countries has a significant positive effect as well as the Language variable shows a significant positive sign. While the negative distance is significant.

## III. RESEARCH METHODOLOGY

The research focused on 33 member countries that are members of the OIC (Islamic Cooperation Organization), such as Albania, Algeria, Azerbaijan, Bangladesh, Benin, Brunei Darussalam, Burkino Fasso, Cameroon, Comoros, Cote

d'Ivoire, Egypt, Guinea-bissau, Guinea, Iran, Iraq, Jordan, Kyrgyzstan, Maldives, Mali, Mauritania, Morocco, Mozambique, Nigeria, Pakistan, Saudi Arabia, Senegal, Suriname, Togo, Tunisia, Turkey, Uganda, United Arab Emirates (UAE) in 2008 to 2017. The writer using RSCA Index for measuring comparative advantage. The RSCA index (Laursen, 1998) is used to measure comparative advantage. The RSCA index is developed from RCA (Revealed Comparative Advantage) or Balassa Index (Balassa, 1965). The RCA and RSCA indices are formulated as follows:

$$RCA_{ij} = (X_{ij}/X_{in}) / (X_{rj}/X_{rn})$$

Where:

$X_{ij}$ : Country exports  $i$  (Indonesia / Malaysia) to OKI for commodity  $j$  (product  $A$ )

$X_{in}$ : Country exports  $i$  (Indonesia / Malaysia) to OKI for all commodities other than commodity (product  $A$ )

$X_{rj}$ : Export of all OIC countries other than country  $i$  (Indonesia / Malaysia) to OIC for commodity  $j$  (product  $A$ )

$X_{rn}$ : Export of all OIC countries other than country  $i$  (Indonesia / Malaysia) to OIC for all commodities other than commodity  $j$  (product  $A$ )

$$RSCA_{ij} = (RCA_{ij} - 1) / (RCA_{ij} + 1)$$

RSCA<sub>ij</sub> Index value has intervals between -1 and 1 or can be written with the formula  $-1 \leq RSCA_{ij} \leq 1$ . RSCA<sub>ij</sub> more than zero means the country  $i$  has a comparative advantage in the product group  $j$ . Conversely, RSCA<sub>ij</sub> less than zero means that the country  $i$  has no comparative advantage in the product group  $j$ . While to see the factors that affect the exports of both countries of origin, this study using Panel data with gravity model. The panel data is a combination of time series data and cross data. Time series includes several periods such as daily, monthly, and quarterly or yearly. Meanwhile, the panel regression model used in this study is as follows:

$$\text{Log Ex}_{ijt} = a + b_1 \log \text{Dist}_{ijt} + b_2 \log \text{GDP}_{it} + b_3 \log \text{GDP}_{jt} + b_4 \log \text{RER}_{it} + b_5 \text{Openes}_{jt} + b_6 \log \text{Pop}_{jt} + b_7 \log \text{Cor}_{jt} + e_{it}$$

Where:

$\text{Ex}_{ijt}$  : Indonesian/Malaysian Exports (US Dollar) to the OIC countries

$a$  : Constant

$\text{Dist}_{ijt}$  : Distance (miles)

$\text{GDP}_{it}$  : GDP reporter (Million USD)

$\text{GDP}_{jt}$  : GDP partners (million USD)

$\text{RER}_{it}$  : Exchange rate (US Dollar)

$\text{Openes}_{jt}$  : Openness of country partners (%)

$\text{Pop}_{jt}$  : Population of country partners (soul)

$\text{Cor}$  : Control of Corruption of partners (%)

$e$  : Term Error

$t$  : Time

$I$  : Country

## IV. RESULT AND DISCUSSION

### A. Indonesian and Malaysian Export Commodities to OIC

Indicators of a country's trade performance can be measured through the country's export value. As discussed in the previous chapter, a country can specialize in referring to the abundance, use, and management of available resources in

the country so that production will be more efficient. In this study, to know the specialization of trade in a country can be calculated through the share of exports of certain products in a country. In addition, we use the analysis of share export to the level of competitiveness of these products. Measuring the level of competitiveness of a product can be measured based on the comparative advantage of a country's product which in this study takes a case study of comparative advantage between Indonesia and Malaysia to the Organization of Islamic Cooperation (OIC) by analyzing the competitiveness of a country's superior products commodities using the RSCA method (Revealed Symmetric Comparative Advantages). This study examines the main commodities of countries of origin (Indonesia and Malaysia) to OIC countries, especially primary products incorporated in group A according to the ETA classification (Analysis of Empirical Trade) 2008-2017. The results of the analysis show that both countries of origin, Indonesia and Malaysia have different levels of competitiveness for primary commodity groups. Indonesia tends to decline in the number of products that have a level of competitiveness in primary commodities while Malaysia shows the opposite result in an increase in the number of products that have a level of competitiveness in primary commodities. Overall, the comparative advantages of Indonesia and Malaysia in 2008 and 2017 are presented as follows:

TABLE I. The Comparative Advantages of Indonesia and Malaysia

Country	Year		Information
	2008	2017	
Indonesia	Primary Products(Group A)  26 SITC : SITC 267, 322, 72, 424, 245, 232, 71, 266, 121, 91, 251, 74, 233, 37, 36, 246, 44, 431, 411, 34, 35, 288, 98, 292, 22, 277	Primary Products(Group A)  18 SITC : SITC 267, 322, 245, 251, 232, 424, 335, 37, 431, 71, 36, 223, 74, 75, 287, 72, 91, 98	A decrease in the number of SITC
Malaysia	Primary Products(Group A)  18 SITC : 424, 246, 91, 232, 431, 248, 233, 269, 14, 266, 35, 48, 289, 223, 112, 98, 247, 81	Primary Products(Group A)  23 SITC : 246, 264, 266, 247, 248, 35, 23, 269, 424, 14, 334, 121, 233, 431, 72, 98, 232, 268, 351, 111, 22, 282, 278	An increase in the number of SITC

Source : UN-COMTRADE (2018), Author Estimation

**B. Specialization of Indonesia-Malaysia to OIC Countries**

Hinloopen and Marrewijk (2005) state that the trade specialization of a country is determined by calculating the value of share export from that country. The higher the share export value of a product, the higher the trade specialization of the product in a country compared to other products in that country. Share Export are calculated by calculating the percentage of the export value of a commodity (SITC) in a country against the value of the country's total exports. Higher export values indicate that the product is produced in larger quantities than other primary products.

**C. Indonesian Trade Specialization**

In this study, the overall share of exports for all primary products in Indonesia was calculated and taken the highest ten highest. Then specialization was analyzed for the level of SITC comparative advantage in Indonesia in 2008 and its changes in 2017. The primary products that remain consistent from 2008 to 2017 are SITC 424 (Other fixed vegetable oils, fluid or solid, crude) and 322 (Coal, lignite and peat). Whereas for the primary products that experience an increase is SITC 333 (Petrol, oils & crude oils obt. Chrome bitumin. Minerals) increase from fourth to third and SITC 431 (Animal & vegetable oils and fats, processed & waxes) up from seventh to be ranked fourth. Meanwhile, the primary products that experienced a downgrade were SITC 232 (Natural rubber latex; nat rubber & sim. Nat. Gums) which dropped from sixth to eighth. Whereas primary products in the top 10 Indonesian specialties in 2008 were not found in the top 10 Indonesian specialties in 2017, namely SITC 72 (Cocoa), 91 (Margarine and shortening), 22 (Milk and Cream), 71 (Coffee and coffee substitutes) and 267 (Other man-made fibers suitable for spinning & waste). Then primary products in the 10 major Indonesian specialties in 2017 are not found in the top 10 Indonesian specialties in 2008, namely SITC 98 (Edible products and preparations), 335 (Residual petroleum products, nes. & Relat. Materials), 341 (Gas, natural and manufactured), 251 (Pulp and waste paper) and 122 (Tobacco manufactured 211 hides and skins (except fur skins, raw).

**D. Malaysian Trade Specialization**

In this study, the overall share of exports for all primary products in Malaysia is calculated and taken the highest ten highest. Then specialization was analyzed for the level of comparative advantage of SITC in Malaysia in 2008 and its changes in 2017. The primary products that remain consistent from 2008 to 2017 are SITC 424 (Other fixed vegetable oils, fluid or solid, crude) in the first rank and 22 (Milk and cream) ranked ninth. Whereas for primary products that experienced an increase were SITC 334 (Petroleum products, refined), up from third place to second place, SITC 98 (Edible products and preparations nes) up from tenth place to third place and SITC 248 (Wood, simply worked, and railway sleepers of wood) rose from ninth to seventh. Meanwhile, the primary product that experienced a downgrade is SITC 333 (Petrol, oils & crude oils obt. Chrome bitumin. Minerals) dropped from second to sixth and SITC 48 (Cereal prepared & preserved of flour of fruits or veg) dropped from the sixth rank is ranked tenth. Whereas primary products in the top 10 Malaysian specialties in 2008 are not found in the top 10 Malaysian specialties in 2017, namely SITC 91 (Margarine and shortening) and SITC 232 (Natural rubber latex; rubber & sim nat. Gums). Then the primary products in the top 10 Malaysian specialties in 2017 are not found in the top 10 Malaysian specialties in 2008, namely SITC 72 (Cocoa) and 73 (Chocolate & other food precepts containing cocoa).

**E. Product Specialist with High Comparative Advantages**

Indonesian primary product specializing in 2008 was SITC 424 (Other fixed vegetable oils, fluid or solid, crude), 72 (Cocoa), 232 (Natural rubber latex; rubber & sim. Nat. Gums), 431 (Animal & vegetable oils and fats, processed &

waxes), 22 (Milk and cream), 71 (Coffee and coffee substitutes), and 267 (Other man-made fibers suitable for spinning & waste). Primary products that are specialized in 2017 are SITC 424 (Other fixed vegetable oils, fluid or solid, crude), 322 (Coal, lignite and peat), 431 (Animal & vegetable oils and fats, processed & waxes), 98 (Edible products and preparations nes), 335 (Residual petroleum products, nes. & Relat. Materials), 232 (Natural rubber latex; nat rubber & sim. Gums) and 251 (Pulp and waste paper).

Malaysian primary product that was specialized in 2008 was SITC 424 (Other fixed vegetable oils, fluid or solid, crude), 431 (Animal & vegetable oils and fats, processed & waxes), 91 (Margarine and shortening), 48 (Cereal prepared & preserved) of flour of fruits or veg), 232 (Natural rubber latex; nat rubber & sim. Nat. gums), 248 (Wood, simply worked, and railway sleepers of wood) and 98 (Edible products and preparations). Primary products that are specialized in 2017 are SITC 424 (Other fixed vegetable oils, fluid or solid, crude), 98 (Edible products and preparations nes), 431 (Animal & vegetable oils and fats, processed & waxes), 72 (Cocoa), 248 (Wood, simply worked, and railway sleepers of wood) and 22 (Milk and cream).

**F. Analysis of factors Affecting the Performance of Indonesian-Malaysian Exports to the OIC**

According to Widarjono (2007) there are three tests that can be done to select panel data estimation techniques. First, the model selection is done by the F statistical test or the chow test to select the common effect or fixed effect to be used. If the F-statistical probability value in the chow test is less than 0.05, the Hausman test will be carried out. The second stage is the Hausman test to choose the fixed effect method or random effect. If the probability of a Hausman test is less than the significance level of 0.05, the chosen fixed effect, however, if the Hausman test probability value is more than the significance level of 0.05, then the random effect will be chosen. Third, the Lagrange Multiplier (LM) test is carried out if there are inconsistencies in the results of the chow test and the Hausman test to choose between the common effect and random effects methods. If the calculated LM value is smaller than the critical Chi-Squares value, the chosen model is the common effect.

The selection of a fixed effect model and random effect can be carried out in accordance with the objectives of the researchers' analysis or the possibility of data as the basis for making a model, can only be processed by one method due to various mathematical technical problems underlying the calculation (Nachrowi, 2006). According to some econometrists, it is said that if the panel data possessed has a greater amount of time (t) than individuals (i), it is recommended to use the fixed effect estimation method. Conversely, if the amount of time (t) is smaller than the individual (i) then it is recommended to use the estimated random effect model.

- Indonesia

The probability value of the F-statistic under  $\alpha$  5% is equal to 0,000 or less than 0.05. Then it can be concluded that  $H_0$  is rejected and accepts  $H_1$ , which means the regression results of the Fixed Effect Model are better to use. Based on the

Hausman test, the probability value (0.9767) produced is greater than 0.05. It can be concluded that  $H_0$  is accepted and  $H_1$  is rejected, which means that the data owned by Random Effect Model is more suitable for use in this study. Based on the Lagrange test results above, the probability value (0.0000) is smaller than 0.05 so it can be concluded that the model used is random effect. After doing the statistical test to determine the model used, it can be concluded that Random Effect. The estimation results are :

TABLE II. Regression Result (Indonesia)

Dependent Variable: Exijt	Model		
	Common Effect	Fixed Effect	Random Effect
<b>Constant</b>	-15,613	-1,51e+10	-17,758
Standard Error	18,241	5,53e+09	6,216
P-Value	0,393	0,007	0,004
<b>Logdistij</b>	-0,706*	(omitted)	-0,700**
Standard Error	(0,132)	(omitted)	(0,424)
P-Value	0,000	(omitted)	0,099
<b>Loggdpi</b>	0,974	6,32e+08	0,933*
Standard Error	(0,876)	4,00e+08	(0,260)
P-Value	0,267	0,115	0,000
<b>Loggdpij</b>	0,495*	6,16e+08	0,679*
Standard Error	(0,085)	4,04e+08	(0,206)
P-Value	0,000	0,128	0,001
<b>Logrerij</b>	-0,714	-7,69e+08	-0,584**
Standard Error	(0,847)	2,13e+08	(0,238)
P-Value	0,400	0,000	0,014
<b>Opnij</b>	0,007**	-1345	0,009*
Standard Error	(0,002)	19408	(0,002)
P-Value	0,020	0,489	0,000
<b>Logpopj</b>	0,456*	-5,53e+08	0,276
Standard Error	(0,103)	7,26e+08	(0,249)
P-Value	0,000	0,447	0,270
<b>Corj</b>	0,885*	4,19e+10	0,268
Standard Error	(0,191)	1,57e+08	(0,168)
P-Value	0,000	0,008	0,112

Source: The Results of panel data processing using stata  
 Note : \*p<0,01, \*\*p<0,5, \*\*\*p<0,10

$\alpha = -17,758$  it means that, if all independent variables (distance, country of origin GDP, destination country GDP, exchange rate, openness of the destination country, destination country population and control of corruption of the destination country are considered to be zero, Indonesian exports to the OIC country at -17,758. Meanwhile,  $b_1 = -0,700$ , this means that, with a 5% significance level, it is identified that every 1% increase in distance will reduce the number of Indonesian exports to the OIC countries by an average of 0,7 % (ceteris paribus). Other coefficients such as  $b_2 = -0,933$ ,  $b_3 = 0,679$ ,  $b_5 = 0,009$ ,  $b_6 = 0,276$  and  $b_7 = 0,268$  have positive sign or positive relationship with dependent variable. It means that GDP reporter, GDP partners, Openness and Control of corruption of partners increase, these will increase Indonesia export to the OIC countries. Distance, GDPi and GDPj is basic of standard gravity model, since distance has negative sign whereas GDPi and GDPj both have positive signs, these in line with Gravity model theory. Therefore Gravity model is confirmed. In addition,  $b_4 = -0,584$  has negative relationship with dependent variable. It means that, if distance increases, then Indonesia export to the OIC countries will decrease.

The results of calculations in the random effect estimation model show that the probability of the F-statistic is 0.0000 with a significance level of 1% so that the independent

variable consists of distance, GDP of reporter, GDP of partners, exchange rate of reporter, population of partners, openness of partners, the control of corruption of partners have effect on Indonesian export to the OIC countries. Coefficient of determination explaining the variation of the dependent variable. From the analysis using a random effect model, in Indonesian case, coefficient determination is 0.6202, which means that, 62.02% of the variation in Indonesian exports can be explained by variations in distance, GDP of reporter, GDP of partners, exchange rate, population of partners, openness of partners and control of corruption of partners, whereas 37.98 explained by other variations outside the model.

- **Malaysia**

The probability value of the F-statistic under  $\alpha$  5% is equal to 0,000 or less than 0.05. Then it can be concluded that  $H_0$  is rejected and accepts  $H_1$ , which means the regression results of the Fixed Effect Model are better to use. Based on the Hausman test results above, the probability value (0.1190) produced is greater than 0.05. It can be concluded that  $H_0$  is accepted and  $H_1$  is rejected, which means that the data owned by Random Effect Model is more suitable for use in this study. Based on the Lagrange test results above, the probability value (0.0000) is smaller than 0.05 so it can be concluded that the model used is random effect. After doing the statistical test to determine the model used, it can be concluded that Random Effect. The estimation results are presented as follows:

TABLE III. Regression Result (Malaysia)

Dependent Variable: Exijt	Model		
	Common Effect	Fixed Effect	Random Effect
<b>Constant</b>	-5,850	-9,75e+09	-7,972
Standar Error	(23,265)	5,53 e+09	8,145
P-Value	0,802	0,079	0,328
<b>Logdistij</b>	-1,589*	(omitted)	-1,432**
Standar Error	(0,179)	(omitted)	(0,592)
P-Value	0,000	(omitted)	0,016
<b>Loggdpi</b>	0,930	5,60 e+08	0,852*
Standar Error	(0,914)	(4,20 e+08)	(0,276)
P-Value	0,310	0,184	0,002
<b>Loggdpij</b>	0,513*	1,39 e+08	0,811*
Standar Error	(0,106)	4,11 e+08	(0,253)
P-Value	0,000	0,001	0,001
<b>Logrerij</b>	-1,166	-9,15 e+08	-0,949*
Standar Error	(1,097)	2,29 e+08	(0,293)
P-Value	0,289	0,000	0,001
<b>Opnij</b>	0,004	-10957	0,010*
Standar Error	(0,003)	20257	(0,002)
P-Value	0,295	0,595	0,000
<b>Logpopj</b>	0,159	-2,24 e+08	0,171
Standar Error	(0,127)	7,20 e+08	(0,293)
P-Value	0,212	0,002	0,558
<b>Corj</b>	0,748*	-6,92 e+08	0,259
Standar Error	(0,238)	1,62 e+08	(0,199)
P-Value	0,002	0,669	0,195

Source: The Results of panel data processing using stata  
 Note : \*p<0,01, \*\*p<0,5, \*\*\*p<0,10

$\alpha = -7,972$  it means that, if all independent variables (distance, country of origin GDP, destination country GDP, exchange rate, openness of the destination country, destination country population and control of corruption of the destination country are considered to be zero, Malaysian

exports to the OIC country at -7,972. Meanwhile,  $b_1 = -1,432$  it means that, with a 5% significance level, it is identified that every 1% increase in distance will reduce the number of Malaysian exports to the OIC countries by an average of 1,432% (ceteris paribus). Other coefficients such as  $b_2 = 0,852$ ,  $b_3 = 0,811$ ,  $b_5 = 0,010$ ,  $b_6 = 0,171$  and  $b_7 = 0,259$  have positive sign or positive relationship with dependent variable. It means that GDP reporter, GDP partners, Openness, Population and Control of corruption of partners increase, these will increase Malaysia export to the OIC countries. Distance, GDPi and GDPj is basic of standard gravity model, since distance has negative sign whereas GDPi and GDPj both have positive signs, these in line with Gravity model theory. Therefore Gravity model is confirmed. In addition,  $b_4 = -0,949$  and has negative relationship with dependent variable. It means that, if exchange rate increases, then Malaysia export to the OIC countries will decrease.

The results of calculations in the random effect estimation model show that the probability of the F-statistic is 0.0000 with a significance level of 1% so that the independent variable consists of distance, GDP of reporter, GDP of partners, exchange rate, population of partners, openness of partners, the control of corruption of partners have effect on Malaysia export to the OIC countries. Coefficient of determination explaining the variation of the dependent variable. From the analysis using a random effect model, in Malaysian case, the Malaysian R-Squared value is 0.5175, which means that about 51.75% of the variation in Malaysian exports can be explained by variations in distance, GDP of reporter, GDP of partners, exchange rate, population of partners, openness of partners and control of corruption of partners whereas 48.25% is explained by other variations outside the model. If the value of R-Squared is zero, the variation of the dependent variable is very limited. If the value is close to one, the independent variable can explain all information from the dependent variable.

The R-Squared value indicates that the overall variable influences exports in both countries. The further the distance traveled, the greater the transportation costs used in sending these export commodities. Gross Domestic Product (GDP) or country income is a benchmark for a country's economy. An increase in exports or trade value will cause an increase in GDP in both countries. The size of the population of the destination country has a significant effect on export demand but is inseparable from the type of product exported by a country. In the relations of trade cooperation between the two countries, the exchange rate is an important factor that has influence. One of the institutional variables such as control of corruption gives caution in both countries. Anderson & Wincoop, (2003) assume that exporting countries impose trade costs on importing countries. Therefore the corruption of the exporting country must be more effective than the importing country in the import flow. This is also confirmed by the rejection of the endogenous corruption of importing countries.

## V. CONCLUSION

Indonesia has decreased the number of products that are competitive in exports to OKI, from the beginning there were 26 SITC in 2008 to 18 SITC in 2017 and consistently specialized in exporting OIC to SITC 424 products (Other fixed vegetable oils, fluid or solid, crude) , 431 (Animal & vegetable oils and fats, processed & waxes) and 232 (Natural rubber latex; nat rubber & sim. Nat. Gums) for a span of 10 years from 2008 to 2017. While Malaysia has increased the number of products that are competitive in exports to OIC, from the beginning there were 18 SITC in 2008 to 23 SITC in 2017 and consistently specialized in exporting OIC to SITC 424 products (Other fixed vegetable oils, fluid or solid, crude), 431 (Animal & vegetable oils and fats, 98 (Edible products and preparations nes.) and 248 (Wood, simply worked, and railway sleepers of wood) for a span of 10 years from 2008 to 2017. Indonesia and Malaysia are the two main actors who have made significant contributions in intra-OIC trade. One of the things that can be done in order to increase exports to the OIC country is by conducting a specialization of highly competitive products. Looking at the movement of the RSCA value of Indonesian and Malaysian products, it can be given advice to maintain its export products with a fairly high RSCA value. Given the focus of research is the primary product which can be said to be largely derived from the resources of each country so that the error term also affects here. Then the researchers tried to analyze the factors that influence exports with several variables. In measuring The Factors Affecting the Performance of Indonesian Malaysian Exports to the OIC we use the Gravity Model. Results show that the distance variable has a significant negative effect on Indonesian and Malaysian exports to the OIC in 2008-2017. This explains that the further the distance between the two countries reduces the exports of Indonesia and Malaysia. Gross Domestic Product (GDP) of partners has a significant and positive effect on Indonesian and Malaysian exports toward the OIC countries in 2008-2017. This explains that the greater the GDP of partners, the greater exports of Indonesia and Malaysia. Gross Domestic Product (GDP) of reporter has a significant positive effect on Indonesian and Malaysian exports to the OIC countries. This explains that, the greater the GDP of Indonesia and Malaysia, the greater the Indonesian and Malaysian exports. The exchange rate has a significant negative effect on Indonesian and Malaysian exports to the OIC countries. This explains that the higher the exchange rate, the less exports of Indonesia and Malaysia. The openness variable of partners has a significant positive influence on Indonesian and Malaysian exports to OIC countries. This explains that, the more open country partners, the greater the exports of Indonesia and Malaysia. The destination population variable has insignificant effect on Indonesian and Malaysian exports to the OIC countries. Finally, control of corruption in country partners has insignificant effect on Indonesia and Malaysia export.

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