

REGIONAL INTEGRATION AND INTRA OIC TRADE: LESSONS FROM INDONESIA AND MALAYSIA

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Abstract: *In addition to their membership in the Organization of Islamic Cooperation (OIC), Indonesia and Malaysia are also involved as active members in the evolving Association of South-East Asian Nation (ASEAN). This raises a question over whether involvement in the ASEAN, especially how ASEAN Free Trade Area (AFTA) brings about a negative or positive impact on Indonesia's and Malaysia's trade performance with fellow OIC member countries. The current paper attempts to examine empirically the likelihood of such relationship and explore whether there presents a systematic difference between the case of Indonesia and Malaysia. Based on the results, some implications will be highlighted and policy recommendations will be offered.*

Keywords: *Regional integration; ASEAN; AFTA; Intra OIC trade*

JEL Classification: *F10, F15*

Abstrak: *Selain memiliki keanggotaan dalam Organisasi Kerjasama Islam (OKI), Indonesia dan Malaysia juga tergabung sebagai anggota aktif dalam Asosiasi Negara-negara se Asia Tenggara (ASEAN). Hal ini menimbulkan sebuah pertanyaan, mengenai apakah dengan keanggotaan Indonesia dan Malaysia di ASEAN, terutama tentang bagaimana Area Perdagangan Bebas ASEAN (AFTA) tersebut bisa berdampak positif atau negatif terhadap perdagangan Indonesia dan Malaysia terhadap negara-negara anggota OKI. Paper ini akan memeriksa pengaruh keanggotaan Indonesia dan Malaysia dalam ASEAN terhadap perdagangan Indonesia dan Malaysia terhadap OKI dan akan menggali adakah perbedaan yang sistimatis antara kasus Indonesia dan Malaysia. Berdasarkan hasil penelitian, beberapa implikasi akan digarisbawahi dan rekomendasi kebijakan akan ditawarkan.*

Kata kunci: *Integrasi regional; ASEAN; AFTA; Perdagangan intra OIC*

Klasifikasi JEL: *F10, F15*

INTRODUCTION

Despite recent agreement on the 10-year Plan of Action at the third extraordinary Islamic summit, the trade among OIC countries has gone up to 16.7 per cent of the total trade of the 57-member states in 2009 from 14.5 per cent in 2004. Still, the economic experts and businessmen insist, the target of increasing the share of trade among OIC member-states under the 10-year Plan of Action agreed at the third extraordinary Islamic summit to 20 per cent of their total trade by 2015 will not be possible.

When the intra-OIC trade is increase significantly, this will potential to address the issues of poverty, low economic growth and investment in the member countries. However, it needs to remove restriction in terms of interaction and cooperation between private sectors of the member of the OIC.

Diplomats are agree that, the lack of interest amongst the OIC members to achieve the goal of a common market agenda as suggested at the Islamic Summit in 1974 is because of the lack of political will to increase trade between the OIC member countries. This evidence is a major factor responsible for the low of trade flow between the Muslim countries. In addition, lack of political and economic will in many OIC countries and governments for signing bilateral and multilateral free trade agreements among them tend to decrease development on trade and investment relations within the OIC member countries. If the 57 OIC countries had the political will, the Muslim countries would have stronger economic relationship. However, it was disappointed to know that, in majority, Muslim countries are more confident to trade with the United States or Europe rather than other OIC states.

The effect of political will on trade size among the OIC countries is supported by Cindoruk (1992). He argues that, the political will of the leaders of the Islamic countries is the key point for ICM development in order to overcome some difficulties such as the communication problem as well as transport systems.

It is official that among the Organization of Islamic Cooperation (OIC)'s objective is to strengthen intra-Islamic economic cooperation towards the establishment of an Islamic Common Market (ICM). In various occasions, the member countries of the OIC have reemphasized such objective and reaffirmed their commitments. During the Third Islamic Summit Conference in 1981, for example, the member countries of the OIC have established what so-called the Standing Committee for Economic and Commercial Cooperation of the OIC (COMCEC, 2001). In the 2005 Extraordinary Islamic Summit Conference in Makkah, OIC member countries have announced the adoption of a Ten Year Program of Action which includes a target to increase intra-OIC trade up to 20 percent of the members' total trade by 2015. Muslim world trade to boost the Islamic brotherhood relationship among fellow Muslim countries, for example OIC member countries. Besides, to increase economic growth and gain benefit from the member of trading group.

However, hitherto economic ties between OIC member countries remain below expectation. Until the end of 2013, the share of intra-OIC trade in total trade of the OIC countries has not exceeded 18.2 per cent. Besides, there presents deep concentration of trade by country and product. The top ten countries account for over 70 per cent of intra-OIC trade, with UAE, Turkey and Saudi Arabia leading the way. Exports are heavily concentrated in primary products like oil, natural gas and metals, with low technology intensive manufacturing.

There have been a number of studies that attempted to examine the determinants of intra-OIC trade. These include studies covering OIC member countries as a whole (Bendjilali 1997; Ghani 2007; Gundogdu 2009) and studies covering only certain countries within the OIC, such those grouped in MENA (Lee & Gohar 2010; Jafari, Ismail & Kouhestani 2011; Saddam & Kari 2012).

Bendjilali (1997) found that bilateral trade between two OIC member countries is affected positively by the size of their economies, their joint participation in regional integration

schemes and the extent of Islamic Development Bank trade financing. By contrast, the volume of trade between two OIC countries is affected negatively by geographic distance which manifests in transportation and communication costs.

The development of international trade has a trend to create a multinational trading blocs such as regional cooperation. It is created from the connection of neighboring states that agree to have common trading policies to face the competitors from other countries, for example to make an agreement in term of privileged market access and tariff.

Free Trade Agreement (FTA) is an influential concept in international trade policy, in term of market access and tariff. While international trade policy literature has given a considerable attention on Free Trade Agreements (FTAs), hitherto there is hardly found any study that utilizes Gravity model to analyze the effects of FTAs on Indonesia's and Malaysia's trade performance with fellow Muslim countries in the OIC. This research will be carried out to fill this gap.

This research aims to investigate the effect of FTA particularly ASEAN Free Trade Area (AFTA) on Indonesia's and Malaysia's trade performance with the member countries of the OIC.

Carrère (2003) employs Gravity model to evaluate ex-post regional trade agreements. The panel data analysis including 130 countries over the period from 1962 to 1996. Using dummy variables, the model specification allows to identify theory of trade creation and trade diversion. Result finds that regional agreement is significant to increase bilateral trade flow.

Abidin (2012) analysed trade cooperation between Malaysia and the Organization of Islamic Cooperation (OIC) member countries. The period study takes several years from 1997 to 2009. The research aims to examine Malaysia-OIC trade pattern, trade determinants and to evaluate trade prospects of Malaysia with the OIC countries. To attain these aims, this research is using quantitative method and the panel data analysis employing the Gravity model. The analysis of trade pattern indicate

that the OIC countries have not optimally used their resources to enhance a strong intra-OIC trade. The major determinants of Malaysia's export to the OIC countries are the size of the economies, level of openness of the economy, inflation rates, and the exchange rates. Meanwhile, distance is not matter for Malaysia's import, whereas institution is a key determinant for Malaysia export to and import from the OIC member countries.

Dianniar (2013) examines on the impact of FTAs on Indonesia's agricultural trade flows and estimates trade potentials between Indonesia and other 193 countries, members and non-members FTAs. She constructs the extended Gravity model to test the effects of FTAs on Indonesia's agricultural trade flows. Instead of using the membership of AFTA and ACFTA as independent variables, she using some explanatory variables in the regression model such as GDP, Indonesia's population and distance. In addition to explanatory variables she adding some control variables, for example common language, common border and colonial link. Results show that, GDP and Indonesia's population have positive impact on export, but negative on import in trade relations with members of FTA. This means that income matter for Indonesia's agricultural trade flow. There is an unexpected result, since distance variable do not confirm the gravity theory, indicates that transport cost is not a significant barrier on agricultural export growth. Meanwhile, common language and common border have negative effects on export, whereas colonial link has positive impact on trade. Surprisingly, results show that the membership of FTAs. AFTA and ACFTA do not bring significant impact on Indonesia's agricultural trade flows. In addition, Indonesia tends to trade with countries that have high level standard of living, such as Japan, the United States, and Singapore.

RESEARCH METHOD

In this research, the effect of regional trade agreements on intra-OIC trade is estimated based on Gravity model. The model that was

first introduced by Tinbergen (1962) has not only been popular for its ease of implementation, but also for its superiority in projecting the volumes of bilateral trade. In addition, the model allows to control for the effects of other trade-related variables, making it possible to isolate the effect of trade agreements that are being analysed.

Data

Data for Indonesia's and Malaysia's exports to ASEAN and OIC countries are taken from the United Nations Commodity Trade Statistics Database (UNCOMTRADE). Data of population are taken from <http://www.chemical-ecology.net>. Data for these dummies are taken mostly from de Sousa (2012).

Regression Model of Specification

$$Fijt = \alpha_0 + \alpha_1 GDPjt + \alpha_3 DISTijt + \alpha_4 POPjt + \alpha_5 AFTAjt + \alpha_6 OICjt + uij \quad (1)$$

Where:

Fijt: bilateral export flows from country *i* to country *j* at year *t*

GDPjt: the gross domestic product (GDP) of importing countries

DISTijt: the distance between exporting country and importing countries

POPjt: population of importing countries

AFTAjt: a vector of dummies for regional trade agreements (ASEAN Free Trade Area membership) involving exporting countries

OICjt: a vector of dummies for OIC country (dummy religion)

uij: random error term

α0: constant

The Dependent Variable

Export Flows

Majority of the studies on gravity model use total bilateral trade flows as dependent variable. However, we use only bilateral export flows. Therefore, this study uses the value of

export (in U.S. dollars) as proxy of trade flows.

Independent Variables

GDP

The term of GDP that is used in this study is GDP in current U.S. dollars. According to World Bank, GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products.

Distance

The distance variable represents transportation costs faced by a country to export. The distance may reduce exports. The farther the distance, the higher transportation costs, the lower the export flows.

Population

Population can affect export flows through the two sides; supply and demand. On the supply side, population may represent amount of labour to undertake the production of export commodities. While on the demand side, population will increase domestic demand which means increase imports, but this research focus on export only.

This study includes two dummies variables, namely; AFTA and OIC.

Dummy Variables 1: AFTA

Countries that join in AFTA may trade more. Dummy is set 1 if Indonesia or Malaysia and their trade partners have the same FTAs; and 0 otherwise.

Dummy Variables 2: OIC

This study includes OIC member countries as a dummy variable. Thus, countries that belongs to the same membership in OIC. Dummy OIC also reflects dummy religion. Dummy OIC is set 1 if Indonesia or Malaysia and their trade partners have the same membership in OIC is 1; and 0 otherwise.

Hypotheses

GDP

The GDP for the exporting country could represent production capacity, whereas the GDP for the importing country may reflect the size of the market, which represents the potential demand for imports. A larger GDP for an exporting country implies a larger production capacity and therefore an expectation of a higher export capacity because of economies of scale (Sohn, 2005). Therefore an increase in GDP exporting country is expected to increase the volume of bilateral trade. Thus, we hypothesize that GDP will have a positive impact on Indonesian export to their trading partner such as ASEAN countries as well as the OIC countries, and this concept also applied in Malaysian-case in the same way.

Distance

Distance represents trade barriers that may discourage trading activities, for instance transport costs, delivery time, cultural unfamiliarity, and market access barriers. Previous studies that applied the Gravity model tended to use physical distance as a measurement. However, recently, several new methods have been created to measure distance. The most familiar proxy is transportation cost. In general, it is now well accepted that relative distance is preferred instead of absolute distance. Therefore, distance matters for calculating trade barrier.

To support the argument of relative distance, Sohn (2005) and Papazoglou et al. (2006) argued that firms in exporting countries may prefer to trade with neighboring countries for cultural or historical reasons because, to a certain extent, this will lower the cost of doing business. In brief, distance may be represented by "psychological distance" between trading countries, instead of kilometers. Therefore, we hypothesize that distance will negatively affect bilateral trade.

Population

On the one hand, with regard to population, a larger population implies a large domestic production, which is expected to motivate

exports in an exporting country. On the other hand, a larger population in country's partner is expected to increase the demand for imports in an importing country (Papazoglou et al., 2006). Therefore, we hypothesize that the combination of a pair of trading countries' populations (POP) will significantly affect bilateral trade.

Dummy of AFTA Membership

Carrère (2006) highlighted two benefits when use the Gravity model to capture the impact of trade agreements. First, Gravity model isolates the effects of a regional trade agreement, since the model represents a relevant counterfactual that isolates the impacts of a regional trade agreement. Second, Gravity model isolates the trade creation and trade diversion effects of an RTA, once we introduce the correct dummy variables in the model.

In our case, because we want to investigate the impact of AFTA on bilateral trade when the trading partner has formed any type of trade agreements with other countries, we expect that an exporting country will face lower import demand from a trading partner that has trade agreements with other countries. Therefore, it is hypothesized that AFTA of exporting countries will reduce the amount of export from the existing exporting countries. AFTA will be denoted by the dummy of AFTA will be 1 if the country is joining AFTA; and 0 otherwise. The data of AFTA signation is provided during the period of study.

Dummy of OIC Membership (Religion)

In this case, because this study want to investigate the impact of AFTA on bilateral trade when the country origin has formed any type of trade agreements with other countries, for example OIC. The research expects that an exporting country will prefer export to a trading partner in ASEAN which has the same trade agreements instead of export to the OIC countries. Therefore, it is hypothesized that, AFTA will reduce the amount of export from the existing exporting countries (Indonesia; Malaysia) to the OIC member countries. Country's involvement in the OIC membership is indicated by the dummy of OIC. Dummy of OIC also represent dummy of religion. The OIC

membership status, including Indonesia and Malaysia is provided during the period of study.

RESULT AND DISCUSSION

Regression Results of the Random Effects Model: Indonesia Case

Dependent variable: Fij

Independent variable	Coefficient	t-statistic	P-value
GDP_{jt}	0.005*	8.695	0.000
$DIST_{ijt}$	-74026.94*	-2.710	0.007
POP_{jt}	-10.404*	-4.288	0.000
FTA_{jt}	5.16E+09*	9.869	0.000
OIC_{jt}	2.02E+09*	3.743	0.000
Constant	-1.37E+09**	-2.136	0.033

R-squared = 0.533 F-stat = 106.20*

*, ** are statistically significant at 1%, 5% level

Regression Results of the Random Effects Model: Malaysia Case

Dependent variable: Fij

Independent variable	Coefficient	t-statistic	P-value
GDP_{jt}	0.006*	10.416	0.000
$DIST_{ijt}$	-64254.49	-0.474	0.636
POP_{jt}	-7.954	-0.936	0.349
FTA_{jt}	1.99E+09	0.781	0.435
OIC_{jt}	-4.36E+09***	-1.649	0.099
constant	4.85E+09***	1.686	0.093

R-squared = 0.267 F-stat = 33.932*

*, *** are statistically significant at 1%, 10% level

The Exports of Indonesia and Malaysia to ASEAN and OIC Countries

GDP

In Indonesian-case, the GDP for the exporting country could represent production capacity, whereas the GDP for the importing country (OIC countries) may reflect the size of the market, which represents the potential

demand for imports. A larger GDP for an exporting country implies a larger production capacity. On the other hand, a larger GDP for an importing country signifies potentially larger demand for imports. Result shows that, GDP has a positive impact on Indonesian export to OIC countries which means that the high production capacity of Indonesia is significant to increase export from Indonesia to OIC countries.

In Malaysian-case the result also give the same conclusion. Thus, GDP has a positive impact on Malaysian export to OIC countries.

Distance

In Indonesian-case, distance has negative significant effect on Indonesia's export to OIC countries. This means that, the longer distance the lessen export between Indonesia and OIC countries. Therefore, Gravity theory is proved. Nevertheless, the influence of distance on bilateral trade between Malaysia and the OIC countries for Malaysian-case is negative but insignificant. Malaysia does not consider distance when export to OIC countries.

Population

Including the populations of exporting and importing countries to see what is the effect of population on bilateral trade flows between two countries is possible by extending the basic theory of gravity model. Matyas (1997) finds that population is significant to increase trade in term of the level of specialization in the extend to which producing gains from specialization. On the other hand, Dell' Ariccia (1999) argues a negative population coefficient. Moreover, Bergstrand (1989) argues that a negative relationship between population and trade flows suggesting that imports and exports are capital intensive in production. Conversely, he interprets that, a positive relationship between population and trade flows shows that imports and exports are labor intensive. In Indonesian as well as Malaysian-case, the result shows that, the relationship between population and trade flow is negative which means that Indonesian and Malaysian exports to the OIC countries are labor intensive.

Dummy of AFTA Membership

FTA is legally binding agreement between two or more countries to reduce or eliminate tariffs and nontariff barriers to trade, and facilitate the cross border movement of goods and services between the areas of the Parties. In this case, the free trade agreement is ASEAN Free Trade Area (AFTA). In Indonesian-case, AFTA is positive significant to increase Indonesian export to OIC countries. This means that, for Indonesian-case joining AFTA does not restrict Indonesian export to the OIC countries. In addition, in Malaysian-case, joining AFTA does not have any effect on Malaysian export to the OIC countries.

Dummy of OIC Membership (Religion)

In Indonesian case, OIC has positive and significant effect on Indonesian export. Trade in Islam is based on the Islamic faith. Muslim world, such as OIC countries, has a tendency to trade each other to boost the Islamic brotherhood relationship among fellow Muslim countries. Dummy OIC represents dummy religion. This concept is inline with the theory which explain that,

“The Islamic guidelines of conducting trade activities are also affected by the limitation that the religion would impose on certain forms of trade and credit, which could considerably influence trade policies and consumer consumption behavior.” (Mehanna *et al.*, 2003).

In Malaysian-case, it is very hard to explain why dummy variable such as OIC is not significant even the sign is positive. This result needs further research to explain the reason behind.

CONCLUSION

Indonesian Case

GDP trading partner is positively significant for Indonesian export to OIC countries. Population of trading partner has negative effect on Indonesian export to OIC countries. Distance variable confirms the theory of gravity model that is negative significant on Indonesian export to OIC countries. Indonesian export to ASEAN countries are still higher than Indonesian export

to OIC but the impact of FTA of ASEAN is remain positive towards Indonesian export to OIC countries

Malaysian Case

GDP trading partner is positively significant for Malaysian export. Population of trading partner does not matter on Malaysian export since its impact is insignificant. Distance seems to have negative effect on export from Malaysia to OIC countries, even though it is insignificant. Although it is insignificant, trade flow to ASEAN countries is positive resulting negative impact on Malaysian export to OIC countries.

Recommendation

Indonesia and Malaysia need to improve their trade to the OIC member countries in order to increase economic growth and gain benefit from the member of trading group. Indonesia and Malaysia have initiated several trade agreements to the OIC countries, with the expectation that they will eventually increase their exports to the OIC countries. As our results do not generally support this intuition, Indonesia and Malaysia should be required to design a trade agreement in a way that could ultimately induce higher bilateral trade between Indonesia; Malaysia and the OIC countries.

To be specific, trade agreements should be designed to reduce transportation costs, as the major challenge for increasing Indonesian and Malaysian exports to the OIC countries comes from their high transportation costs. Noted that, Indonesia; Malaysia and the OIC countries are located far away from each other, and the exports are generally low.

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