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The Role of Democracy and Governance in the Enhancement of Indonesian Exports to the Organization of the Islamic Cooperation (OIC) Countries

Aditya Rangga Yogatama[1] and Fithra Faisal Hastiadi[2]

The formulation of new OIC Charter at the 11th OIC Summit in Dakar, 2008, has became the momentum for OIC countries to reassert the importance of democracy and institutional reform in promoting economic and trade cooperation among its members. This study aims to explore the role of democracy and governance in the enhancement of Indonesian exports to the OIC countries during 1998-2012 using augmented gravity model. The results showed that both democracy and governance in Indonesia have positive and significant effect in enhancing Indonesian exports to the OIC countries. While the governance in OIC countries also has positive and significant effect in improving Indonesian exports. On the other hand, democracy in OIC countries has negative and significant effect on the same matter, because lower income OIC countries tend to implement closed trade policy.

1. Introduction

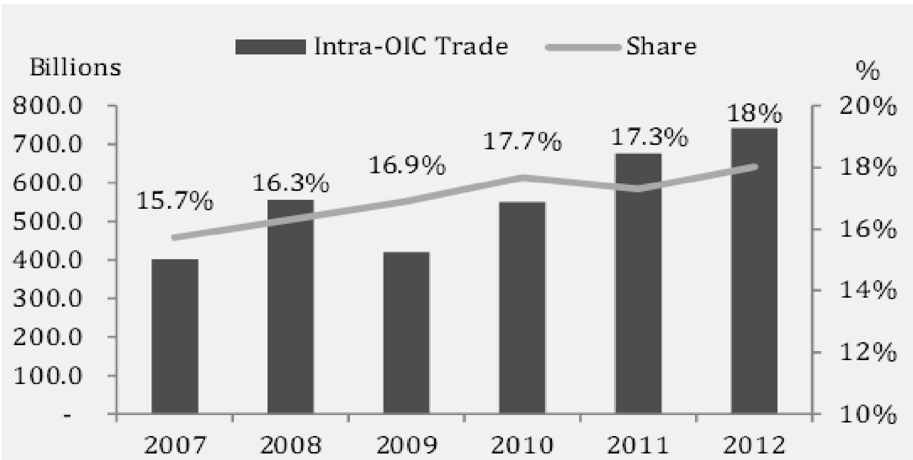
To promote economic growth and trade cooperation, the OIC countries have agreed on several policies and agendas. The OIC Summit in Teheran, 1997, agreed to improve trade among OIC member countries (intra-OIC trade). One of the objectives and principles as included in the OIC Charter is to strengthen economic and intra-bloc trade cooperation in order to create an Islamic Common Market. Furthermore, in 2005, the OIC organized the 3rd Extraordinary Session of the Islamic Conference and generate the OIC's Ten-Year Plan of Action to re-coordinate the member's collective action in various fields, including economic and trade. In regard with trade, the action plan has target to achieve 20% of trade among OIC member countries in the world in 2015 and

[1] Center for Trade Policy Harmonization, Ministry of Trade, Jakarta Pusat 10110, Indonesia. E-mail: ytc.yoga@gmail.com
[2] Faculty of Economics, University of Indonesia, Depok 16424, Indonesia.
E-mail: fithra_faisal@yahoo.com

emphasized the implementation of the scheme of preferential tariff negotiations among member countries that would be the first step towards a more integrated trade agreements. One of the initial steps of the action plan is the approval of the Trade Preferential System (TPS-OIC) and the Protocol of Preferential Tariff Scheme for TPS-OIC (PRETAS).

Despite various efforts to promote the share of trade have been implemented, trade among OIC countries generally has not reached the expected level (Alpay, Atlamaz, and Bakimli, 2011). Figure 1 shows the latest development in trade among OIC member countries in the period 2007-2012. From this figure, it is seen that the share of trade among OIC member countries has reached 18% in 2012. This percentage is relatively small compared to APEC (66.18%), European Union (60.84%), and ASEAN (26.14%)[3], but tends to increase compared to previous years. In general, the share of trade among OIC member countries continued to increase during the period 2007-2012 and slightly decrease in 2011.

Figure 1. Intra-OIC Trade, 2007-2012

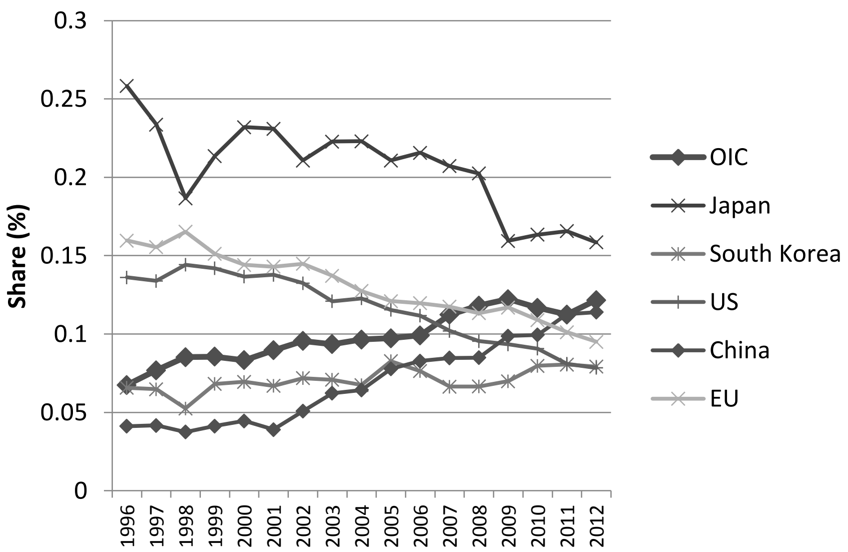


Source: SESRIC (2013)

[3] The latest data is available on the Regional Integration Knowledge System Platform, http://www.cris.unu.edu/riks/web/data.

In the economic and trade sector, Indonesia is also expected to contribute in supporting the trade among OIC countries to achieve 20% in 2015. Figure 2 shows the increase of Indonesian exports share to OIC countries in 1996-2012. In contrary, the share of Indonesian exports to Japan, the EU, and the United States tends to decrease during the same period. This is caused by the decline in the trade performance of traditional trading partner countries and an export destination diversification policy as a strategy to anticipate the global economic crisis shocks.

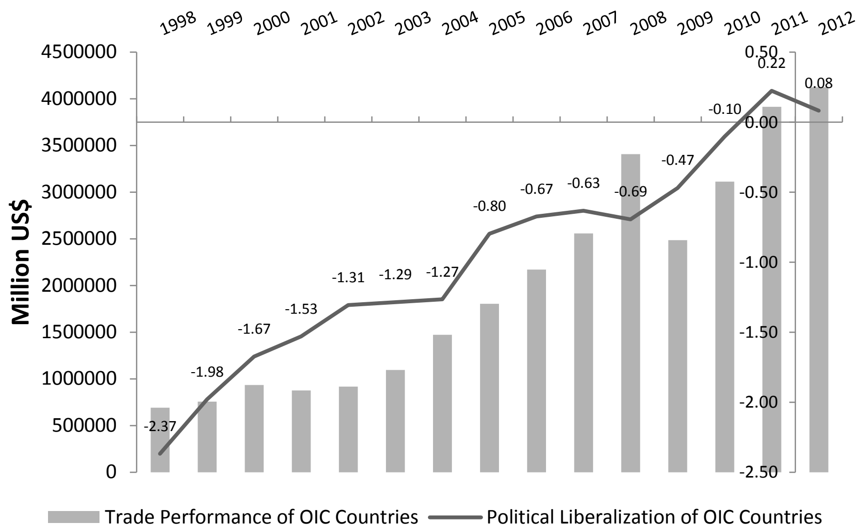
Figure 2. Share of Indonesian Exports, 1996-2012



Source: DOTS, IMF (2014), author's processed.

The 11th OIC Summit in Dakar, 2008, became the momentum for the OIC countries to bring peace and improve welfare by strengthening democracy and country institutions. This summit issued a new OIC Charter replacing the previous OIC Charter (1974) that intended to urge democracy in obtaining good decision in the OIC (Cavalli, 2009). This democracy also creates new institutional framework for 57 OIC countries to boost economic cooperation among members (Suparno, 2008). Figure 3 shows the democratization within the OIC countries is in line with the increasement of trade of the OIC countries during 1998-2012. The figure also shows the acceleration process of democratization in the OIC countries in 1998-2012, with a significant increase in the average index of political liberalization in OIC countries from -2.3 in 1998 to 0.08 in 2012.

Figure 3. Democratization and Trade in OIC Countries, 1998-2012



Sources: DOTS, IMF (2014); POLITY IV (2014), author's processed.

Democratization and the improvement of governance quality are expected to become factors that are able to stimulate and obstacle the trade. Some recent empirical studies show the role of democratization in increasing cooperation and reducing trade barriers between countries (Balding, 2011; Milner and Kubota, 2005; Yu, 2010), although in certain cases may occur otherwise (O'Rourke and Taylor, 2006). Other empirical studies also show that institutional quality or good governance is an important aspect in enhancing trade (Anderson and Marcoullier, 2002; Francois and Manchin, 2013; Jansen and Nordas, 2004; Koukartchouk and Maurel, 2003; Kucharcukova, Babecky, and Raiser, 2012).

This study aims to understand the effect of democracy and governance quality as a consideration to improve Indonesian exports to other OIC countries. Particularly, objectives of this study are as follows:

(1) To describe the development of democracy and governance in the OIC countries in 1998-2012. In this study, the democratization level is shown by political liberalization index from POLITY IV survey, while the governance quality is shown by the Worldwide Governance Indicators (WGI) from the World Bank.

(2) To examine the effect of democracy in Indonesia and the OIC countries in order to improve Indonesian exports to OIC countries in 1998-2012. Furthermore, this study also examines the difference level of development of a country (using World Bank classification based on GNI per capita) as well as the difference level of democratization impact on trade policy.

(3) To examine the effect of Indonesian government and the OIC countries in improving Indonesian exports to OIC countries in 1998-2012. Furthermore, this study also examines the various effect of governance quality, such as control of corruption, government effectiveness, political stability, regulations quality, law enforcement, and accountability.

There has been a lot of study about trade between OIC countries. Most of the studies examine the impact of OIC membership (Ghani, 2007; Gundogdu, 2012; Mohmand and Wang, 2014) and the impact of policy and regional integration (Attrash and Yousef, 2000; Bendjilali, 1997), as well as investigate the determinants of trade among OIC countries (Abidin, Fuel, and Sahlan, 2013; Jafari, Ismail, and Kouhestani, 2011; Mehchy, Nasser, and Schiffbauer, 2013; Nikhbakhsh, 2012; Razzaghi et al., 2012). However, there is none of these studies that specifically examine the role of country institutions such as the level of political liberalization and the governance quality in the OIC trade. In order to complete some existing literatures, this study also has purpose to become the pioneer for affirming the importance to look at country institutional variables in order to boost trade policy in the OIC countries generally and Indonesia particularly.

Beside, among the various studies that examine the effect of institutions on trade, none has examined the effect of democracy and governance quality in equal proportion at the same time. This conclusion may resulted from the finding of Wagner, Schneider, and Halla (2009) that democracy will promote the development of good institutions, so there is a possibility that both impacts are similar. However, Balding (2013) using the International Country Risk Guide of Quality Governance and Polity IV dataset succeed to demonstrate a weak correlation between democracy and governance quality. Charon and Lapuente (2010) also emphasized that the relationship between democracy and governance quality is conditional, one of which depends on its economic development. Therefore, it is interesting to examine whether there are differences in the effect of democracy and governance in trade of OIC countries, and discuss it based on difference levels of economic development.

This study is limited to review Indonesian exports to OIC countries. From total members of 57 OIC countries, the study is only using data of Indonesian trade to 45 OIC countries. It is considering that some countries do not engage intensively with Indonesia. POLITY IV data is not available for Brunei Darussalam, Maldives, Ivory Coast, and Palestine. Meanwhile, Djibouti, Iran, Libya, Afghanistan, Chad, Guinea-Bissau, and Somalia have limitations in economic and trade. This study used annual data for the period 1998-2012, given assumption that since 1998, the 45 countries used as prior data in this study have been incorporated in the membership of the OIC.

2. Conceptual Framework

2.1. Democracy and International Trade

Democracy affects international trade through three channels, namely product quality, institutional system, and policy. First, democratization of a country will affect the quality of product (Yu, 2010). In general, democratic countries will maintain a better implementation of the law and protecting human rights, which also help to create fair and competitive market (Barro, 1999). Beside, democratic countries tend to give huge protection to intellectual property rights, which is related to research and development expenditures (Clarke, 2001). Based on above, the democracy impact on the quality is stronger in industries that spend more on research and development. Thus, the international community will provide higher confidence in the products produced by democracies (Levchenko, 2007). Through quality of this product, democracy gives different effects (Yu, 2010). In a democratic country exporters, higher quality amd competitive products in the global market become a booster to increase exports. In contrary, at democratic country importers, higher quality products will provide tight competition for imported products to entry and potentially dampen import and trade.

Second, democratization in a country will create a good institution (Balding, 2011; Wagner, Schneider, and Halla, 2009). The positive effect of democracy on trade through good institution occur on both exporter and importer countries (Yu, 2010). In a democratic country exporters, good institution will tend to have attention on consumer rights, food and product regulation, as well as law enforcement. It will improve product quality and value of a country in general. In democratic country importer, good institution will reduce trade costs, including risk, so that it becomes attractive and increased trust, thus will rise imports. Democracy provides institution, policy, regulatotions, and law enforcement, especially shown by lower corruption and property rights protection (Balding, 2011). Low institutional quality of the importer countries will create insecurity such as hidden tax on imports (Anderson and Marcouiller, 2002).

Third, democratization will affect the implementation of international trade policies. Democratization has direct consequences in changing the calculations of political leaders on the optimal level of trade barriers (Milner and Kubota, 2005). The logic idea of Heckscher-Ohlin Stolper-Samuelson states that democratization will boost trade policies more liberally in where labor is able to obtain benefit from the free trade. On the contrary, democratization will protect trade policies where labor will be more benefited by the existence of trade barriers, such as quotas and tariffs (O'Rourke and Taylor, 2006). In general, democratization leads to an open trade policy, vice versa. On one hand, democracy makes leaders will be more responsible to their citizens, promote trade liberalization for whole society. On the other side, democracy also empowers the distribution coalition using strong authority, thus will makes bigger protection is more likely to occur (Garrett, 2000). With the responsibility of political leaders to the voters, the democratic process provides openness and transparency that allows entrepreneurs to increase their economic activity with the understanding that the economic activities are regulated by legal framework (Balding, 2011).

Democratization will tend to boost exports by improving the product quality in order to improve competitiveness and confidence in the international level, institutions that minimize transaction costs as well as provide openness and transparency to increases economic activity. On the other hand, democratization has the potency to inhibit import by improving domestic product quality so it will create tough competition for imported products. However, democratization that provide security on trading environment will reduce risk and increase international confidence. In the end, democratization will more accommodate the interest of whole society so that it could determines which policies to be implemented in the country. There is a tendency to be more open or vice versa. It depends on how the interest and character of the majority of the people in the country.

2.2. Governance and International Trade

Institutional become one of the influencing lines of democracy in trade (Balding, 2011). Democratization in a country would create an institutional or good governance (Balding, 2011; Wagner, Schneider, and Halla, 2009). Jansen and Nordas (2004) mentioned three effects of institutional quality on international trade. First, inefficiency in the institution describe cost factor for domestic exporters and then reduce the international competitiveness which caused negative impact on exports. Second, transaction costs due to institutional inefficiency also increase the final consumer price of imported goods which caused negative impact on imports. If the trade is supported by effective law enforcement, and if government regulations are transparent and impartial, the involvement of countries in international trade either as exporters or importers will be more extensive (Anderson and Marcoullier, 2002). Third, when a country reduces its trade barriers, other countries may remain reluctant to trade with the countries because they do not confident with the contract and payment that will be made. Uncertainty in the protection of human rights and compliance in trade contracts are capable to create friction and conflict among trading partners (Linders et al., 2005). Poor institution of a country lose the protection of human rights on a wide range of contractual obligations (Keefer and Knack, 1997), which carries negative externality on the transactions that increase its transaction cost and reduce international trade (Wei, 2000).

2.3. Previous Empirical Research

A number of studies examine the effect of democracy on international trade (Balding, 2011; Yu, 2010). Balding (2011) found that democracy and its components encourage international trade uncertainty. The coefficient has direction that is consistent with the theory, but many are not theoretically and statistically significant. In addition, economic freedom has no impact as expected in the international trade, but the variable of governance quality is economically and statistically significant. With different conclusion, Yu (2010) examine the impact of democracy on trade by using gravity model coupled with democracy based on the theoretical framework and found that democracy has increased trade significantly. Based on these studies, democracy contributes about 3-4% to the bilateral trade growth.

Several other studies focussed specifically on how the changes in the political influenced trade policy (Galliani and Torrens, 2013; Liu and Ornelas, 2013). Galiani and Torrens (2013) proposed a politico-economic model which shows that there is a significant relationship among political transition, changes in trade policy, and the comparative advantage of an economy. International trade is able to affect political harmony and regimes crucially, as well as trade policy. In regards with changes in trade policy, Liu and Ornelas (2013) examine the relationship between involvement in the FTA and sustainability of democracy which is found that FTA involvement extends the life of democracy as well as political instability encourages participation in the FTA.

However, this conclusion does not apply equally in all countries. Milner and Kubota (2005) showed that democracy reduces tariff in developing countries. On the contrary, O'Rourke and Taylor (2006) found the evidence of that is negative effect of democracy on trade in developed countries. In rich countries that is more democratic, trade costs increased due to an increase in tariffs and other non-tariff barriers which is intended to protect workers.

A number of studies have found in line conclusion that good governance caused positive effect on trade (Anderson and Marcoullier, 2002; Francois and Manchin, 2013; Jansen and Nordas, 2004; Koukhartchouk and Maurel, 2003; Kucharcukova, Babecky, and Raiser, 2012). Anderson and Marcouiller (2002) examine how law enforcement is able to increase import demands. They also showed evidences that corruption and weak enforcement of contracts could increase insecurity on sales to the country. Furthermore, Koukhartchouk and Maurel (2003) also introduce variables that reflect institutional quality into the analysis of potential trade impact of the Central and Eastern European countries. The study concludes that institution became important in the process of EU enlargement and deepening trade integration. Regarding to complete previous studies, Jansen and Nordas (2004) found that the governance quality has positive and significant impact in the level of country openness. Meanwhile, domestic tariff are not statistically significant, but affect trade when combined with good institutions. Domestic institution also has positive and significant impact on bilateral trade flows, but the parameters of institutional variables was reduced by almost half and did not change significantly when the quality of domestic infrastructure is included.

Kucharcukova, Babecky, and Raiser (2012) conducted a study in South-Eastern Europe (SEE) and the Commonwealth of Independent States (CIS) countries which has found that low institutional quality contribute to the international trade potential. Examining the same problem and connecting institutional with infrastructure, Francois and Manchin (2013) found that trade is depend on institutional quality and the access of exporters and importers to transportation and communications infrastructure that are well developed. This study also confirmed that the exports of developing countries, low institutional quality and infrastructure in the southern countries are also restrict access to the export markets of the north.

Furthermore, some studies are specifically test the similarity of governance quality also caused positive effect on trade (De Groot, 2004; Wu, Li, and Samsel, 2012). De Groot et al. (2004) attempted to analyze not only the impact of institutional quality on trade, but also the impact of the similarity in institutional quality. The study found that low institutional quality increases transaction costs in trade and concluded that institutional quality has positive and substantial impact on trade flows. Wu, Li, and Samsell (2012) examine the impact of governance environment in trade tendency. This study examined the different impact of governance environment on trade flows and also explained reasons why some countries still conduct trade though it is not increase higher welfare for the country.

3. Methodology

The study used augmented gravity model by including GDP of Indonesia, GDP of OIC countries, and Indonesian population coupled with political liberalization index and governance index in order to examine the role of democracy and governance quality in enhancing Indonesian exports to the OIC countries. This study used panel data analysis procedures which refer to Balding (2011), Francois and Manchin (2013), and Yu (2010). Furthermore, the model of the study as follows,

$$\begin{aligned}\ln\left(X_{jt}\right) = \beta_0 + \beta_1 \ln(GDPIDN_t) + \beta_2 \ln\left(GDP_{jt}\right) + \beta_3 \ln(POPIDN_t) \\ + \beta_4 POLIDN_t + \beta_5 POL_{jt} + \beta_6 GOVIDN_t + \beta_7 GOV_{jt} \\ + \mu_j + \varepsilon_{jt}\end{aligned}$$

The following is an explanation of the variables used in this study:

(1) This study uses Indonesian exports to OIC countries $\left(X_{jt}\right)$ as the dependent variable which is determined by a number of independent variables in the augmented gravity model.

(2) The GDP of Indonesia and the OIC countries in constant 2005 US\$, $(GDPIDN_t)$ and $\left(GDP_{jt}\right)$, as an proxy to economic development level. The economic development level shows Indonesian export supply and the OIC countries import demand. It is also captures Indonesian productive capacity and the OIC countries import purchasing power. The economic development level of both Indonesia and the OIC countries is expected have positive effect on Indonesian exports to the OIC countries.

(3) The population of Indonesia $(POPIDN_t)$ as an proxy to the amount of domestic demand and available resources in Indonesia. Negative effect of population on trade showed a large absorption from domestic market to reduce dependence on international trade. In contrast, the positive effect of population on trade show a huge domestic market that gives the advantage of economies of scale, so the opportunity to conduct international trade will increase.

(4) Democracy in the both countries, ($POLIDN_t$) and (POL_{jt}), is measured as a composite index of autocracy and democracy produced by Polity IV (Marshall and Jagger, 2002). Specifically, the Polity IV data includes annual indicator which measures autocracy and democracy of an entity with the population over 500,000. Political liberalization index is defined as the difference between autocracy and democracy indicators. The index has scale between -10 and 10, the scale -10 indicates the lowest value of political liberalization. Democracy in the exporter countries is expected to have positive effect on trade, while democracy in the importer countries is expected to have negative affect the trade.

(5) The governance quality in both countries, ($GOVIDN_t$) and (GOV_{jt}), measured by average indicator of governance quality which has estimated by Kaufmann, Kraay, and Mastruzzini (2005). Governance index in this study based on the Worldwide Governance Indicators (WGI), that consist of six indicators are: voice and accountability (VA), political stability and absence of violence (PV), government effectiveness (GE), regulatory quality (RQ), rule of law (RL), and control of corruption (CC). The good governance quality in both exporter and importer countries are estimated to have positive effect on bilateral trade. The index scale is between -2.5 and 2.5, with -2.5 indicating the lowest value of governance.

(6) μ_j represents the specific effects of the OIC countries.

(7) j represents the OIC countries as export destinations of Indonesia, while t represents time series.

The variables and data sources in the study are summarized in the following table,

Table 1. Variable, Description, and Sources of Data

Variable	Description	Expected Sign	Sources of Data
$Log(X_{jt})$	Log of Indonesian exports to the OIC countries (million US$)		DOTS, IMF
$Log(GDPIDN_t)$	Log of Indonesia's GDP constant 2005 (US$)	+	WDI, World Bank
$Log(GDP_{jt})$	Log of the OIC countries' GDP constant 2005 (US$)	+	WDI, World Bank
$Log(POPIDN_t)$	Log of Indonesian population	-	WDI, World Bank
$POLIDN_t$	POLITY, Indonesia democracy index	+	POLITY IV Dataset
POL_{jt}	POLITY, OIC Countries democracy index	-	POLITY IV Dataset
$GOVIDN_t$	Average of the six governance indexes for Indonesia	+	WGI, World Bank
GOV_{jt}	Average of the six governance indexes for the OIC countries	+	WGI, World Bank

This study started by examining Equation (1) using estimation methods for panel data Fixed Effect Model (FEM). It is chosen because the method is able to control the multilateral trade resistance (MTR). Country-specific fixed effect may be theoretically considered as an estimation of the MTR (Adam and Cobhan, 2007; Feenstra, 2005; Melitz, 2007; Rose and van Wincoop, 2001). The estimation focuses on how the effect of political liberalization (POL) and governance quality (GOV) on Indonesian exports to OIC countries.

In order to expand the analysis and robustness check, this study also estimate Equation (1) with various alternative measurements of democracy and governance quality. Each variable is tested using Equation (1) as an approach to democracy and governance variables. These procedure allow to measure the governance level of a country and also compare its various effect from different aspects.

4. Results and Analysis

Table 2 below provides descriptive statistics of the variables used in this study. In general, these variables are divided into 3 (three) groups as follow: gravity model basic variables, democracy variables, and governance variables.

The basic variables of gravity model consist of log Indonesian exports to OIC countries as dependent variable, the log GDP constant 2005 of Indonesia as an exporter country, log GDP constant 2005 of OIC countries as an importer countries, and log population of Indonesia. The democracy variable consists of 3 (three) alternative indexes, namely: the democracy index (DEM), the autocracy index (AUT), and political liberalization index (POL) which is a combination of democracy and autocracy index. While, governance variables consist of 6 (six) governance indicators, namely: the control of corruption index (CC), the government effectiveness index (GE), the political stability index (PV), the regulatory quality index (RQ), the rule of law index (RL), the voice and accountability index (VA), as well as one indicator of governance quality indicator (GOV) which is the average of six indexes to describe the quality of country's governance generally.

Tabel 2. Descriptive Statistics of Variables

Variables	**Obs.**	**Mean**	**Std. Dev.**	**Minimum**	**Maximum**
Log(X)	675	3.048	2.302	-3.579	9.331
Log(GDPIDN)	675	26.398	0.221	26.092	26.781
Log(GDP)	675	23.389	1.691	19.604	27.166
Log(POPIDN)	675	19.228	0.061	19.129	19.324
POLIDN	675	6.455	3.213	-5	8
POL	675	-1.259	5.736	-10	9
DEMIDN	675	7.133	1.963	0	8
DEM	675	2.407	2.897	0	9
AUTIDN	675	0.667	1.248	0	5
AUT	675	3.671	3.237	0	10
GOVIDN	675	-0.673	0.186	-0.931	-0.394
GOV	675	-0.554	0.543	-1.928	0.790
CCIDN	675	-0.843	0.171	-1.134	-0.563
CC	675	-0.537	0.599	-1.576	1.723
GEIDN	675	-0.354	0.121	-0.596	-0.197
GE	675	-0.501	0.635	-1.877	1.247
PVIDN	675	-1.423	0.504	-2.118	-0.573
PV	675	-0.507	0.873	-3.185	1.213
RQIDN	675	-0.388	0.178	-0.781	-0.175
RQ	675	-0.466	0.636	-2.176	1.116
RLIDN	675	-0.726	0.103	-0.966	-0.595
RL	675	-0.534	0.641	-1.924	1.032
VAIDN	675	-0.305	0.326	-1.036	0.028
VA	675	-0.780	0.582	-2.210	0.619

Based on the descriptive statistics, it appears that the political liberalization index as the approach to democratization in the OIC countries is having scale between -10 and 9. This showed that the political system in the OIC countries are varied, ranging from countries that persist with its autocratic political systems like Qatar, Saudi Arabia, and Bahrain (scale -10 in 2012) until more democratic countries like Albania, Turkey, and Comoros (scale 9 in 2012). Meanwhile, Indonesia has experienced periods which tend to be autocratic (scale -5 in 1998) then began to undergo democratization process and stabilized in 2004 (scale 8).

Furthermore, in term of the governance index, governance quality which is an approach to OIC institutions is having scale index between -1.928 and 0.67. The value of -1.928 indicates poor governance, as occured in Iraq, Afghanistan, and Somalia. In contrary, the value of 0.67 indicates good governance quality that is occurred in the United Arab Emirates, Brunei and Qatar. Meanwhile, the Indonesian government once had very bad quality (scale -0.931 in 2003) then began to improve its governance quality from year to year (up to scale 0.394 in 2012).

Tabel 3. The Estimation Results of FEM with Various Specifications

Regressand										
Log(X)	**[1]**		**[2]**		**[3]**		**[4]**		**[5]**	
C	5.062	***	-41.658	***	192.863	***	75.474	***	155.892	***
	(0.214)		(3.549)		(31.848)		(25.463)		(35.211)	
Log(GDPIDN)			1.151	***	6.288	***	3.429	***	5.328	***
			(0.131)		(0.687)		(0.664)		(0.888)	
Log(GDP)			0.647	***	1.099	***	0.804	***	0.790	***
			(0.108)		(0.086)		(0.086)		(0.095)	
Log(POPIDN)					-19.849	***	-9.414	***	-16.198	***
					(2.607)		(2.193)		(3.041)	
POLIDN	0.001		-0.009	***	0.022	***			0.018	***
	(0.005)		(0.003)		(0.004)				(0.006)	
POL	-0.003		-0.015	*	-0.012				-0.015	*
	(0.013)		(0.009)		(0.009)				(0.009)	
GOVIDN	2.421	***	0.706	***			0.652	***	0.497	**
	(0.237)		(0.181)				(0.221)		(0.243)	
GOV	0.710	***	0.566	***			0.508	***	0.550	***
	(0.068)		(0.060)				(0.064)		(0.065)	
R-squared	0.973		0.977		0.981		0.980		0.980	
Adj R-squared	0.971		0.976		0.980		0.979		0.978	
F-statistic	463.768	***	538.258	***	663.847	***	628.111	***	585.863	***
Num of Obs	675		675		675		675		675	

Standard error in the parenthesis; * $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$

Table 3 shows the results of FEM with different specifications model to ensure that the model proposed in this study is robust. Column [1] shows governance affects export positively and significantly. Column [2] shows governance still affect positively and significantly, as well as Indonesian democracy affect negatively when added by control variable. Furthermore, column [3] is the result of estimating gravity model added by democracy variable (POL) which shows that Indonesian democracy affect exports positively and significantly, while democracy in the OIC countries is not significant. Column [4] is the result of gravity model added by government variable (GOV) which shows that governance affect exports positively and significantly. Lastly, column [5] is the result of the overall gravity model estimation as main specifications of the model in this research.

The discussion in this study will focus on the estimation results in column [5]. Democratization in Indonesia has positive and significant impact on exports to OIC countries. The improvement of the scale of Indonesian democracy caused about 1.8% increase in Indonesian exports to OIC countries. In other words, the coefficient of Indonesian democracy suggests semi-elasticity of democracy in Indonesian exports to OIC countries for about 1.8%. This is consistent with the findings of Yu (2010) and Balding (2013) which stated that democratization encourages trade.

Democratization in OIC countries has negative and significant impact on bilateral trade between Indonesia and the OIC countries. The improvement of one scale of democracy in OIC countries caused about 1.5% declined in Indonesian exports to OIC countries. In other words, the coefficient of democracy in OIC countries as Indonesian export destinations suggests a semi-elasticity of democracy in OIC countries approximately for 1.5%. This is in contrast to the findings of Yu (2010) which stated that democratization in importer countries increased trade, but agreed with the findings O'Rourke and Taylor (2006) who concluded that democratization in the importer countries tends to raise trade barriers, as well as in the developed countries. These are estimated to prove the median voters theory that the preferences of median voter which are the stakeholder of democracy will determine the current trade policy. In countries that depend on its natural resources and poor employment level, democratization will tend to more closed international trade policies. This result is relevant when considering that OIC countries characteristic are dominated by lower income countries, lower-middle income countries, and upper-middle income countries.

The finding that democratization within the OIC countries tend to inhibit Indonesian exports becomes interesting to be estimated thorough. Table 4 shows the effect of democracy and governance based on the OIC countries income level that is published by the World Bank classification. The OIC countries are classified into lower income countries, lower-middle income countries, upper-middle income countries, and higher income countries.

Tabel 4. The Estimation Results of FEM with Various Countries Income Level based on the World Bank Classification

Regressand	**LI**		**LMI**		**UMI**		**HI**	
Log(X)	**[1]**		**[2]**		**[3]**		**[4]**	
C	169.107	***	199.156	***	123.915		179.563	***
	(61.529)		(62.632)		(94.232)		(58.761)	
Log(GDPIDN)	6.657	***	6.377	***	5.267	**	4.164	***
	(1.271)		(1.519)		(2.402)		(1.339)	
Log(GDP)	1.156	***	0.903	***	0.463		1.067	***
	(0.392)		(0.181)		(0.376)		(0.231)	
Log(POPIDN)	-19.160	***	-20.033	***	-14.028	*	-16.154	***
	(5.140)		(5.431)		(8.126)		(4.801)	
POLIDN	0.029	***	0.033	***	0.009		0.002	
	(0.007)		(0.009)		(0.014)		(0.010)	
POL	-0.038	***	-0.005		-0.012		-0.002	
	(0.009)		(0.013)		(0.018)		(0.055)	
GOVIDN	-0.390	*	0.117		1.148	***	1.124	***
	(0.221)		(0.279)		(0.387)		(0.374)	
GOV	0.326	**	0.577	***	1.225	***	0.529	***
	(0.170)		(0.214)		(0.234)		(0.148)	
R-squared	0.972		0.968		0.985		0.979	
Adj R-squared	0.969		0.964		0.983		0.977	
F-statistic	326.141	***	275.646	***	550.711	***	333.682	***
Number of Obs	210		195		165		105	

Standard error in the parenthesis; * $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$

LI: Lower Income; LMI: Lower-Middle Income; UMI: Upper-Middle Income; HI: High Income

Based on the table, it appears that democratization in lower income countries significantly hamper Indonesian exports to the country. It is confirmed that the lower income countries tend to implement more closed trade policies. It is presumably because the lower income countries concerned to protect the domestic labor relatively more than the middle-income and higher income countries. On the other side, the governance quality of upper-middle and higher income countries are positively affect Indonesian exports to the country significantly. Thus, the good governance quality in these countries became attractive and has potential to continue improve trade transactions.

The governance quality in Indonesia has positive and significant impact in improving exports to OIC countries. The improvement of one scale of Indonesian governance has caused approximately 49.7% increase in Indonesian exports to OIC countries. In the other words, the coefficient of Indonesian governance suggests semi-elasticity of governance for about 49.7% on trade. This is consistent with the findings of De Groot et al. (2004) and Francois and Manchin (2013) that a good quality institutions, will reduce trade costs and increase bilateral trade.

As in Indonesia as an exporter countries, the governance quality of OIC countries as export destination caused positive and significant impact on Indonesian exports to OIC countries. The increasement of one scale of governance in OIC countries caused for about 55% increase in Indonesian exports to OIC countries. In other words, the coefficient of governance in OIC countries suggests a semi-elasticity of government for about 55% on exports. This is consistent with the findings of De Groot et al. (2004) and Francois and Manchin (2013).

The GDP of Indonesia as exporter and the GDP of OIC countries as importer have positive and significant effect on Indonesian exports to OIC countries. Consistent with studies that utilize the gravity model of bilateral trade, the GDP of exporter and importer countries positively and significantly affect bilateral trade. Indonesian GDP coefficient value (5.328) is higher than the value of the coefficient of GDP OIC countries (0.790) which indicates that Indonesian GDP provide more powerful effect in improving exports to OIC countries. Indonesian exports to OIC countries elastic to Indonesian GDP, means that 1% rise on the GDP of Indonesia will increase exports averaged around 5.328%.

Indonesian population has negative and significant impact on bilateral trade between Indonesia and OIC countries. Negative relationship between population and Indonesian exports to OIC countries may be caused by trend of import substitution effect, it is mean that an increase in market size become an incentive for domestic production (Filippini and Molini, 2003). Other reason is the impact of merger between GDP and population. Although the population increase was followed by production increase, the produced goods are consumed by domestic population rather than exported. A number of gravity model literature (Filippini and Molini, 2003; Razzaghi, et al., 2012) also indicates that the population coefficient did not show consistent results.

Based on the results above, Indonesian exports to OIC countries generally influenced by GDP, population, democratization level, and good governance quality of both Indonesia and OIC countries. GDP and governance quality of two countries impact positively, while the population of two countries impact negatively on Indonesian exports to OIC countries. Meanwhile, democratization level of Indonesia as exporters impact positively, on the contrary, the democratization of OIC countries as importer impact negatively. The coefficient of determination (R-squares) is used to understand the success of the model in explaining the variation of dependent variable, showed a value of 0.98, which means that about 98% variation of Indonesian exports variable is explained by the independent variables and the remaining 2% is affected by other variables outside the model or in other words the goodness of fit is 98%.

In order to robustness check, this study separately included the various alternative variables of political liberalization and governance quality in the regression. Table 5 shows the estimation results of a various alternative of political liberalization measurement. Alternative variables used to measure political liberalization are democracy index (DEM) and autocracy index (AUT) by Marshall and Jagger (2002).

Tabel 5. Estimation Results of FEM with Alternative Measurement of Political Liberalization

Regressand	**DEM**		**AUT**	
Log(X)	**[1]**		**[2]**	
C	166.463	***	162.549	***
	(33.165)		(36.188)	
Log(GDPIDN)	5.532	***	5.354	***
	(0.848)		(0.893)	
Log(GDP)	0.801	***	0.810	***
	(0.093)		(0.095)	
Log(POPIDN)	-17.042	***	-16.598	***
	(2.882)		(3.080)	
POLIDN	0.031	***	-0.050	***
	(0.008)		(0.016)	
POL	-0.027	**	0.008	
	(0.011)		(0.021)	
GOVIDN	0.512	**	0.490	*
	(0.248)		(0.255)	
GOV	0.559	***	0.538	***
	(0.063)		(0.065)	
R-squared	0.980		0.980	
Adj R-squared	0.978		0.978	
F-statistic	585.959	***	591.719	***
Number of Obs	675		675	

Standard error in the parenthesis; * $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$

Based on Table 5, democratization in Indonesia (DEMIDN) boost exports to OIC countries. On the other hand, democratization in OIC countries (DEM) tends to become barrier for Indonesian exports. It is in line with theory which stated that democratization will improve product qualities, thus will raise tough domestic competition and inhibit imports from Indonesia (Yu, 2010). In addition, it is allegedly estimate the policies that inhibit trade has also applied (O'Rourke and Taylor, 2006). As outlined above, trade policies tend to be more closed is implemented in OIC countries in order to protect low income workers. On the other hand, autocracy in OIC countries (AUT) do not have an impact on increasing bilateral trade between Indonesia and OIC countries.

Tabel 6. Estimation Results with Alternative Measurement FEM Governance

Regressand	CC		GE		PV		RQ		RL		VA	
Log(X)	**[1]**		**[2]**		**[3]**		**[4]**		**[5]**		**[6]**	
C	186.665	***	194.976	***	165.045	***	135.612	***	167.816	***	217.366	***
	(29.953)		(29.079)		(39.118)		(51.949)		(50.800)		(45.663)	
Log(GDPIDN)	5.844	***	6.227	***	6.056	***	5.128	***	5.828	***	6.722	***
	(0.645)		(0.623)		(0.954)		(1.079)		(1.122)		(0.914)	
Log(GDP)	1.072	***	1.074	***	0.743	***	1.039	***	0.953	***	1.077	***
	(0.086)		(0.088)		(0.103)		(0.086)		(0.105)		(0.085)	
Log(POPIDN)	-18.866	***	-19.837	***	-17.639	***	-15.200	***	-17.725	***	-21.683	***
	(2.439)		(2.322)		(3.311)		(4.181)		(4.211)		(3.641)	
POLIDN	0.018	***	0.019	***	0.022	***	0.016	**	0.021	***	0.021	***
	(0.004)		(0.005)		(0.005)		(0.006)		(0.006)		(0.005)	
POL	-0.011		-0.010		-0.014		-0.013		-0.012		-0.020	***
	(0.008)		(0.008)		(0.011)		(0.009)		(0.009)		(0.007)	
GOVIDN	0.384	*	0.282	*	0.057		0.149		0.121		0.121	
	(0.212)		(0.157)		(0.061)		(0.097)		(0.224)		(0.077)	
GOV	-0.042		0.096		0.296	***	0.098	*	0.284	***	0.184	***
	(0.051)		(0.096)		(0.036)		(0.058)		(0.073)		(0.065)	
R-squared	0.981		0.981		0.980		0.981		0.981		0.981	
Adj R-squared	0.979		0.980		0.979		0.979		0.980		0.980	
F-statistic	619.496	***	632.895	***	607.702	***	628.861	***	635.921	***	639.681	***
Num of Obs	675		675		675		675		675		675	

Standard error in the parenthesis; * $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$

Furthermore, Table 6 shows the results of gravity model using various alternative measures of governance. Variables which are: the control of corruption index (CC), the government effectiveness index (GE), the political stability index (PV), the regulatory quality index (RQ), the rule of law index (RL), as well as the voice and accountability index (VA) by Kaufman, Kraay, and Mastruzzi (2005).

Based on Table 6, the effect of each governance indicators to Indonesia exports show different results. Political stability (PV), regulatory quality (RQ), rule of law (RL), and voice and accountability (VA) in OIC countries show positive and significant impact on Indonesian exports.

It is also important to note that control of corruption (CCIDN) and government effectiveness (GEIDN) in Indonesia provide positive and significant impact on improving trade between Indonesia and OIC countries. The coefficient of control of corruption in Indonesia is greater than other indicators which confirm that this dimension is crucial for bilateral trade between Indonesia and OIC countries. The difference in estimating each governance indicators suggest to look specifically at which aspects has greater impact so it becomes the focuss of future policy making.

5. Conclusion

This study found that the democratization level in OIC countries as Indonesian export destination has negative and significant impact in enhancing exports to OIC countries. This is presumably due to the OIC countries tend to implement a more closed international trade policies, especially the case of lower income countries. This is reasonable given the low-income countries have a weak labor characteristics and can not take advantage of the liberalization of trade. Democratization in Indonesia show a positive and significant role in enhancing Indonesian exports to the OIC countries.

In addition, good governance quality in Indonesia and OIC countries has positive and significant role in improving Indonesian exports to OIC countries. In details, the most crucial dimensions of governance in improving exports to OIC countries are: control of corruption and government effectiveness of Indonesia and OIC countries, as well as political stability, rule of law, and voice and accountability in OIC countries.

GDP, population size, democratization level and governance quality are determinants to increase Indonesian exports to OIC countries. Both countries GDP have positive and significant impact in improving Indonesian exports to OIC countries. The Indonesian population has negative and significant impact in improving Indonesian exports to OIC countries. Negative relationship between population and Indonesian exports show import substitution effect, that an increase in market size is an incentive for domestic production.

The conclusion give consideration in the institutional framework to increase Indonesian exports to OIC countries in order to support the policy of “the OIC Ten-Year Programme of Action Plan” established in 2005. The policy target is to achieve trade for 20% among OIC countries in 2015. Enhancement of Indonesian exports should be strengthened by good institutional quality in the OIC countries. Beside, democratization within OIC middle income countries opens to trade so that become mutually beneficial trade cooperation.

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