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What drives the inflow of FDI in OIC countries? Evidence from top 10 hosts of inward FDI flows

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Abstract

Purpose – This study investigates the driven factors of Foreign Direct Investment (FDI) inflow in selected OIC member countries. The selection of samples observation based on the top 10 hosts of inward FDI flows countries, includes the United Arab Emirates (UAE), Morocco, Indonesia, Turkey, Iran, Egypt, Bangladesh, Kazakhstan, Oman, and Malaysia.

Methodology – The data for this study are obtained from World Bank and United Nations Development Programme (UNDP) database for the period 2001-2018. This study adopted panel regression analyses and utilized the Random Effect Model.

Findings – This study reveals that GDP and trade openness were positive and significantly plays a vital role in driving the FDI inflow. Whereas, the exchange rate, inflation, and human development index did not have a significant impact on FDI inflow in the top 10 hosts of inward FDI flows countries.

Research limitation – The main limitation of this research is the lack of a variable that represents the Islamicity index, which can differentiate the driven factors of FDI in Muslim and non-Muslim organization countries.

Practical implication – This study suggests that members of OIC countries should provide a conducive investment environment which is represented by higher GDP growth and engage in various international trade agreements because those factors have higher possibilities in impacting the FDI inflow. Moreover, the rules which describe the investment priority amongst the member of OIC countries must be ratified immediately to decrease the percentage of the FDI inflows goes to non-OIC members.

Originality – This study has advanced the knowledge by examining the driven factors of FDI in the specifically selected members of OIC countries, which based on the highest FDI inward. Thus, this study provides significant insights for policymakers for the rest of the member OIC countries to attract FDI inflows referring to the top 10 hosts of inward FDI flows countries.

Introduction

The multiple transformations of economic globalization have impacted the strengthening of countries' integration and interconnectedness. Coulibaly et al. (2018) explained that this phenomenon resulted in the form of the easiness of doing business for foreign investors, in-and outward foreign investment, deregulation of trade barrier, the rapid mobilization of technology, goods, services, as well as physical and human capital. Moreover, Weiß et al. (2018) also explained that globalization improves the global flow of information and knowledge, which in turn leads to higher productivity and economic growth. Therefore, to maximize the advantages of globalization,

several countries have formed cooperative organizations such as the organization of Islamic Cooperation (OIC). OIC is an inter-governmental organization with 57 states membership spread over four continents. In fact, OIC becomes the second largest inter-governmental after the United Nations, which represents the collective voice of the Muslim world. Moreover, according to the official website of OIC, the main aim of this organization is to protect the interests of the Muslim world, coordinating cooperation between countries and contributes to promoting international peace and harmony among various people of the world (Organisation of Islamic Cooperation, 2020). These aims be in accordance with several explicit statements in the Qur'an, such as in At-Tawbah verse 71 "The believing men and women are allies of one another. They enjoin what is right and forbid was wrong…". From this ayah, we can confirm that Islamic principles proclaim to support each other for a better life, in a broad view, Islamic economics promote prosperity amongst the country. Moreover, Furqani (2019) also explained that based on Muhammad Baqir al-Sardr's perspective, Islamic economics is guidance for economic activities that depend on Islamic principles and the purpose is to realize justice for the entire human being.

In order to coordinate cooperation between the members, OIC countries act together as much as possible to attract Foreign Direct Investment (FDI) since FDI is one of the advantages which enjoyed by nations from globalization for both developing and emerging countries (SESRIC, 2019b). Ibhagui (2020) stated that FDI plays a crucial role in the independence of economies because FDI not only offers investible capital but also helps the host country to access the advanced technologies, which accelerated their total factor productivity. Consequently, the increase of productions' productivity will trigger-up the efficiency and effectiveness of production. In a broader view, Onafowora and Owoye (2019) explained that FDI could enlarge the market and increase the domestic input market competitiveness, which finally contributes in gained more tax revenue in the host country from companies' profits. Besides, FDI also helps in sharpening a better social and environmental condition in the host country by adopting the "greener" technology. Similarly, SESRIC (2019b) illustrates international capital flows such as FDI aids in boost international trade, create jobs which reduce the unemployment rate and also increase public revenue through taxes and households income through wages.

Furthermore, Akadiri et al. (2019) and Redmond and Nasir (2020) emphasize FDI promote technology transfer from the developed country to the developing, emerging and underdeveloped country that simplify domestic investment as well as boost the institution quality and encourages improvement human capital of the host countries. Additionally, Sahoo & Sethi (2020) described FDI had become the essential source due it's to the lower probability of reversals of capital flows. This statement is also supported by Iamsiraroj (2016) that stated that mostly developing countries are trying to attract FDI as they expect the stable resources for long-term economic growth. In a nutshell, Ridzuan et al. (2018) the FDI significantly help countries in achieving the higher level of growth, improved income distribution and intensify environmental quality in Malaysia. Because of the importance of FDI, all the countries in this world includes, the member of OIC countries tries to captivate the FDI to obtain sustainable growth. Thus, the factors which affect the FDI inflows become an essential research topic to both analysts and policymakers (Economou, 2019) to trigger-up the FDI growth to the higher level as well as overcome the barrier factors, which usually caused the degrading of FDI growth.

Specifically, in the context of OIC countries, SESRIC (2019b) reported that in the past three years, the economic activity in the OIC countries has slowed down, especially in 2018 which fell below the world average. Moreover, SESRIC (2019b) revealed that the average growth has decreased from 3.7% in 2017 become 3.1%. Moreover, the report also discovered the FDI flows to OIC countries is slightly declined from US$ 108.3 billion in 2017 to US$ 107.4 billion in 2018. Thus, from these facts, we can conclude that economic growth and FDI inflows move in the same direction. Furthermore, the report stated that OIC countries be supposed to compile specific programs to direct enough FDI and finance their development goals and projects, which, in turn, affects the improvement of economic growth. This report implies the necessity of an inclusive policy to boost economic growth through the improvement of infrastructure quality. Hence, an effort to attract enough FDI to finance the development projects of OIC countries is an obligation since the

availability of financial resources remains a crucial challenge for many OIC countries. However, the FDI growth in OIC countries has decreased significantly, which can be illustrated through the graph 1.
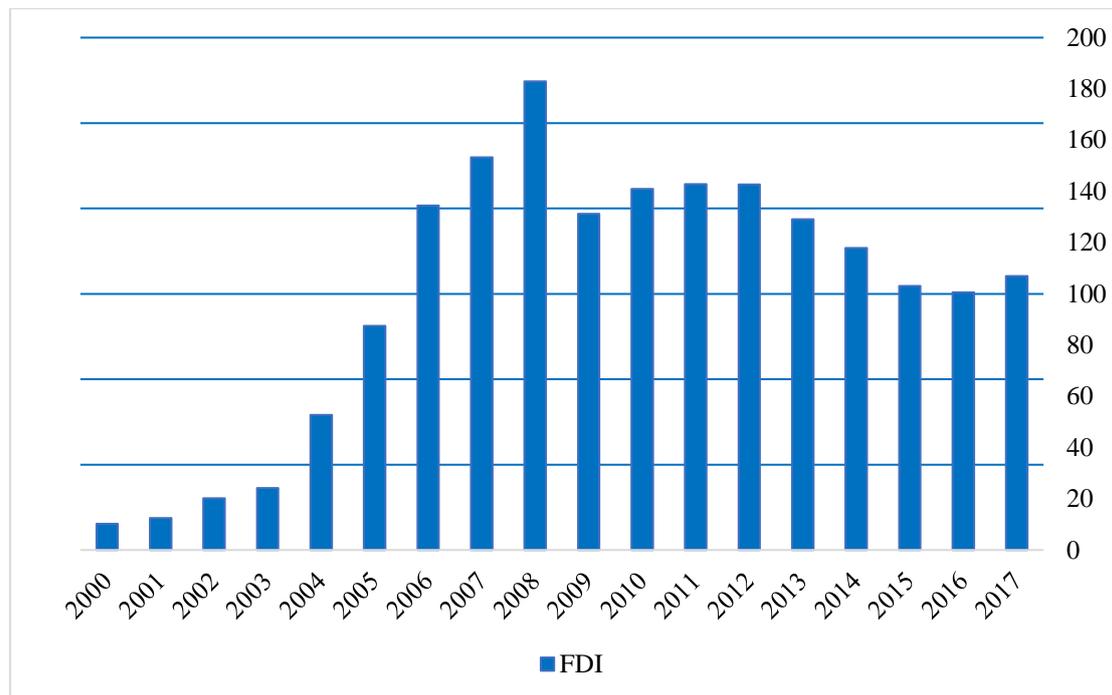
Graph 1. Foreign Direct Investment Inward Flow in OIC Countries (US$ Million)
Source: Compiled by Author from SESRIC (2010, 2011, 2019a).

From graphic 1, we can analyze that FDI inward flows to OIC countries has reached their highest level in 2008, which approximately $182,192 million and equal with 10.8% from the total FDI worldwide (SESRIC, 2010). However, during the period from 2012-2016, the growth of FDI declining continuously and touched the lowest point of $100,633.2 in 2016, which only 5.4% from worldwide (SESRIC, 2019a). Additionally, since 2014 the percentage of FDI outward in OIC countries are higher compared to FDI inward to the OIC countries. Moreover, in 2017, 50% of the total FDI outward mostly goes to non-OIC developing countries (SESRIC, 2019b). These data reflect that there is a decrease in investors' interest in investing their money in OIC countries. However, The World Bank (2020) reported that eight out of ten countries with the most leading improvement in Doing Business 2020 are OIC countries member includes Saudi Arabia, Jordan, Togo, Tajikistan, Pakistan, Kuwait, and Nigeria. This fact is indicatory that OIC countries have put serious effort to gained investors' interest to earn the availability and accessibility of financial resources, which in turn, obtain a stable economy. Since several empirical studies and report such as Haidar (2012), Corcoran and Gillanders (2015) Hossain et al. (2018), and Doing Business Database (2013) reported that level of regulation that measured by ease of doing business become one of the vital variables which influence the FDI level.

Moreover, innumerable research has been widely discovered in several macroeconomy variables that affect FDI in various countries. Such as BRICS countries by Maryam and Mittal (2020), Select South Asian Countries by Sahoo and Sethi (2020), in Organisation for Economic Co-operation and Development (OECD) by (Cieślik, 2019), in Kosovo by Govori and Fejzullahu (2020), in Greece by Tsitouras et al. (2020), in 23 countries by Canh et al. (2019), German by Camarero et al. (2019), India by Arul Provin Binny and Morarji (2019) and etcetera. Whereas, there still limited research that analyzes the specific variables which influence the FDI in OIC countries. Recently studies by Sajilan et al. (2019) has adopted a series of determinants factors of FDI include inflation, size of the economy, trade openness, infrastructure, and institutional quality covering the period from 1996-2013. Thus, it becomes necessary to research to investigates in the context of OIC countries, which is the Muslim majority population, because the determinants factors might be different amongst countries and regions due to the distinction of economic, culture, politic, and

value of each country (Kurul & Yasemin Yalta, 2017; Lausberg, 2010; Sahu, 2020; Saini & Singhania, 2018; Sajilan et al., 2019; Sathe & Handley-Schachler, 2006).

Based on previous explanation, regarding the importance of FDI in enhancing country's social-economy condition and since for almost 24% of the total world population is the member of OIC countries and the contribution of OIC member countries to the overall world Gross Domestic Product (GDP) reached 15.2% in 2018 (SESRIC, 2019b). This study aims to examine the determinants factor of FDI inflows in OIC by utilizing several macroeconomy factors such as GDP, Trade Openness, Exchange Rate, Inflation and Human Development Index. The results will enhance the regulatory framework of policymakers to designed the specific policies which effectively create a conducive environment for investing, as a result, lead the FDI to a higher level. Moreover, the results can become a guide to investors in making valuable investment decisions in OIC, which are Muslim majority countries.

Literature Review and Hypothesis Development

Gross Domestic Product (GDP)

Rani and Kumar (2019) stated that achieving high economic growth and develop the quality of life is the main objective of all the developing and developed countries. FDI is one of the various ways to encourage economic growth. Therefore, several empirical literature reviews have assessed the relationship between GDP and FDI. Maryam and Mittal (2020) demonstrated that the increase of the market size of the host country, which measured by the higher GDP, would lead to a rise in FDI inflows in the context of Brazil, Russia, India, China, and South Africa (BRIS). Moreover, this study also assured that GDP is one of the potential factors in attracting FDI in the long-run period. Thus, this study suggests that policymakers should create and adopt several changes to boost economic growth as well as the improvement of technological advancements. Logically, the increasing of GDP reflects the enhancement of domestic consumption; the higher demand for consumption, which is an essential element in determining the investment decision, will enticing the investors' attention includes FDI inflows. In a broader view, Sajilan et al. (2019) also illustrate that market size, which represented by GDP, reflects the total consumption of a host country where foreign investors looked up.

Besides, Iamsiraroj (2016) found that FDI inflow and economic growth have a simultaneous and dynamic relationship. This result implied that the rapid expansion of economic growth would stimulate the FDI inflows in 124 countries covering the period from 1971-2010. This result in line with the findings of Onafowora and Owoye (2019), Maryam and Mittal (2020) and Kishor and Singh (2015), which stated that economic growth plays a significant and positive effect on FDI. Moreover, Alfaro et al. (2004), Asiamah et al. (2019) and Saini and Singhania (2018) explained that macroeconomic stability, which represented by GDP, has a positive impact on FDI inflows. Based on the above theoretical framework, following hypotheses can be deduced:

H1: Gross Domestic Product positive and significantly influence the FDI inflows in selected OIC member countries.

Trade Openness

Numerous studies have been examined the impact of trade openness towards FDI inflows. Includes Wani (2019) who described that trade liberalization, which represents trade openness, is not only enlarge the country's market size and accessibility to broader goods and services, technology, and knowledge. But also become an efficient variable to attracts private and foreign capital in Afghanistan during the period from 1995-2016. The expansion of market size through the globalization of trade will encourage the decline of cost production per unit product, the rise of total output, and affects the profitability of companies in line with the development of production efficiency. Thus, the effect of this scenario would be enticing the investors' interest. Moreover, Sajilan et al. (2019) also described that FDI inflows tend to move into a higher level when the host country is engaged in various international trade agreements because these agreements will effectively increase the market size of production. For instance, Rani & Kumar

(2019) revealed that China, as the biggest importer countries, also become the two top foreign direct investment destination. This fact might be due to several advantages of export activities such as decrease the unemployment rate, an increasingly international fierce market competition which impacting the quality improvement, and the more excellent economy of scale.

Similarly, Tah et al. (2019) stated that the escalates of countries' openness to international trade are likely to have more opportunities in achieving higher economic growth in several ways, including the increasing of a chance to gained investors' attention. Moreover, Sahu (2020) also applied trade openness variable as the pull factors which influence the FDI inflows in 56 developing countries covering the period from 1990-2017. This study discovered that trade openness is one out of three factors in host country which play a significant role in shaping the trends of foreign capital inflows. Besides, Alfalih and Bel Hadj (2020) also found that in the context of Saudi Arabia, trade openness has a positive impact on FDI inflows in the long-run. Furthermore, Eissa and Elgammal (2019) conducted a research in the context of oil-rich countries such as Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates over the period from 1990-2015, discovered that there is positive nexus between trade openness and FDI. In addition, in the context of BRICS countries, Maryam and Mittal (2020) also supported the previous results, which affirm that trade openness and FDI are move in the same direction in the long-run. Moreover, Saini and Singhania (2018) found that both in developing and developed countries, FDI inflows are found to have a positive association with trade openness. Therefore, based on the logical explanation and evidence from several literatures, the following relationship is hypothesised:

H2: Trade openness positive and significantly influence the FDI inflows in selected OIC member countries.

Exchange Rate

Alfalih and Bel Hadj (2020) describe that the exchange rate becomes a crucial factor which considered by investors, and it is positive and significantly affect the FDI inflows in Saudi Arabia not only in the short-run but also long-run relationship over the period from 1984-2017. Furthermore, Asiamah et al. (2019) explained that the exchange rate is found to be significant and negatively predicting the FDI inflows. Kishor and Singh (2015) demonstrated that in the context of BRICS countries, the exchange rate is the potential factor that affecting the investor decision includes the foreign direct investment inflow. Moreover, a study conducted by Maryam and Mittal (2020) which covers the most extended period from 1984-2018 in this research area, ascertained that both in the long-run and short-run relationships, the exchange rate has a crucial effect in forming the FDI inflows in BRICS countries.

The exchange rate represents the purchasing power parity of domestic currency toward goods and services from a foreign country. In a brief definition, Khan et al. (2019) stated that the exchange rate is the price of one country's currency towards another country's currency. This definition implies the appreciation and depreciation of domestic currency direct or indirectly will affect foreign investors' desire. The unstable exchange rate usually has a lower opportunity in attracting FDI inflow. When the host country currency is facing depreciation, this will lead to an increase in production cost, which increased the products' price and drive the decline of the local demand curve. Consequently, the FDI inflows will follow to decreased. Thus, countries that joining international trade should maintain their currencies' stability (Maryam & Mittal, 2020). Hence, this study posits the following hypothesis:

H3: Exchange rate negative and significantly influence the FDI inflows in selected OIC member countries.

Inflation

Sajilan et al. (2019) explained that the rising of inflation rates would trigger down the FDI inflows due to the degrading of consumers' purchasing power parity in the host country, which implied the decreasing of total demand. Moreover, several researchers have portrayed the relationship between inflation and FDI inflow. Ibhagui (2020) reported that the lower rates of inflation would lead the Sub Saharan African (SSA) countries to enjoy the higher level of FDI inflows, which in turn, will

lead to the most significant economy condition. Thus, this research suggests that to attracting enough FDI as their financial resources, SSA countries should maintain inflation stability. Moreover, Onafowora and Owoye (2019) researched in the Caribbean covering the period from 1975-2015 and showed that the higher rate of inflation is a reflection of a weakness of responsibility in monetary policy, which directly affects the reducing of investment and business productivity through the increasing of price and total production cost. Moreover, in the context of Ghana, Asiamah et al. (2019) found that the inflation rate has a statistically negative and significant impact on FDI. Therefore, the following hypothesis is formulated:

H4: Inflation negative and significantly influence the FDI inflows in selected OIC member countries.

Human Development Index (HDI)

Tah et al., (2019) conducted empirical research in South Africa and based on their finding. This study suggests that the lower quality of human resources is represented the lower skill of a nation in operating the advanced technology and running a business. As a result, this problem causes difficulties for a country to attract the FDI, which finally hamper the spur of economic growth. This study implied that the host country should provide the best quality of human resources to attract FDI inflow. Moreover, Akadiri et al., (2019) and Ibhagui (2020) stated that FDI inflows also encourage the development of the institution and contribute to the human capital improvement of the host countries. However, Ge et al. (2017), Onafowora and Owoye (2019) and Aziz (2018) confirm that the highest productivity of human resources in the host country will create a conducive investing environment. Therefore, Eissa and Elgammal (2019) suggest that policymakers should offer training as well as proper education to increase the quality of human capital. As a result, FDI inflows will be getting increase. Therefore, the following hypothesis is formulated:

H5: Trade HDI positive and significantly influence the FDI inflows in selected OIC member countries.

Hypothesis Research Model

The purpose of this paper is to examines the determinants factors of FDI inflow in selected OIC countries by applying several macroeconomy variables such as GDP, trade openness, exchange rate, inflation and HDI. In order to assess the determinants factors, a model has been developed:
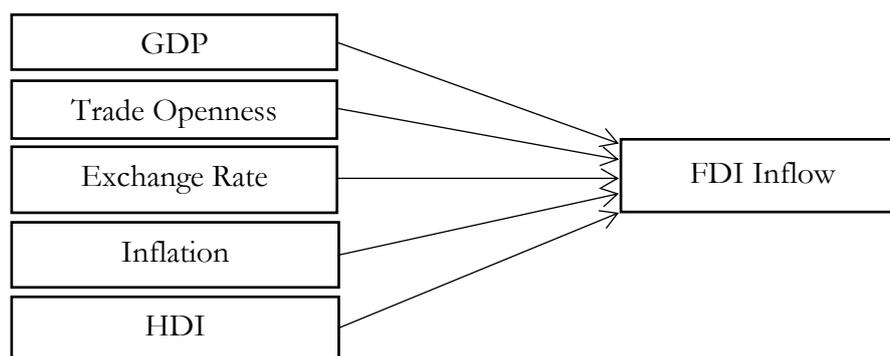

Figure 1. Schematic Diagram of the Study

Research Methods

Sample Selection and Data Sources

This study compiled the temporal series of the main variables from different databases, the selection of the observation period, which is 2001–2018. This study utilizes annual data for a total of 18 years for 10 OIC member countries out of 57 includes the United Arab Emirates (UAE), Morocco, Indonesia, Turkey, Iran, Egypt, Bangladesh, Kazakhstan, Oman, and Malaysia. The selection of samples observation is based on the availability of data. Whereas, The selection of

samples observation is based on the top 10 hosts of inward FDI flows in 2018 (see graph 2) (SESRIC, 2019c). Moreover, this study also tries to avoid the unstable macroeconomic condition during the global economic recession in 1998 in order to represent the proper relationship amongst the variables. Data on FDI, GDP, Trade Openness, Exchange Rate, and Inflation have been collected from the database of the World Bank. In contrast, the Human Development Index data is sourced from the United Nations Development Programme (UNDP).
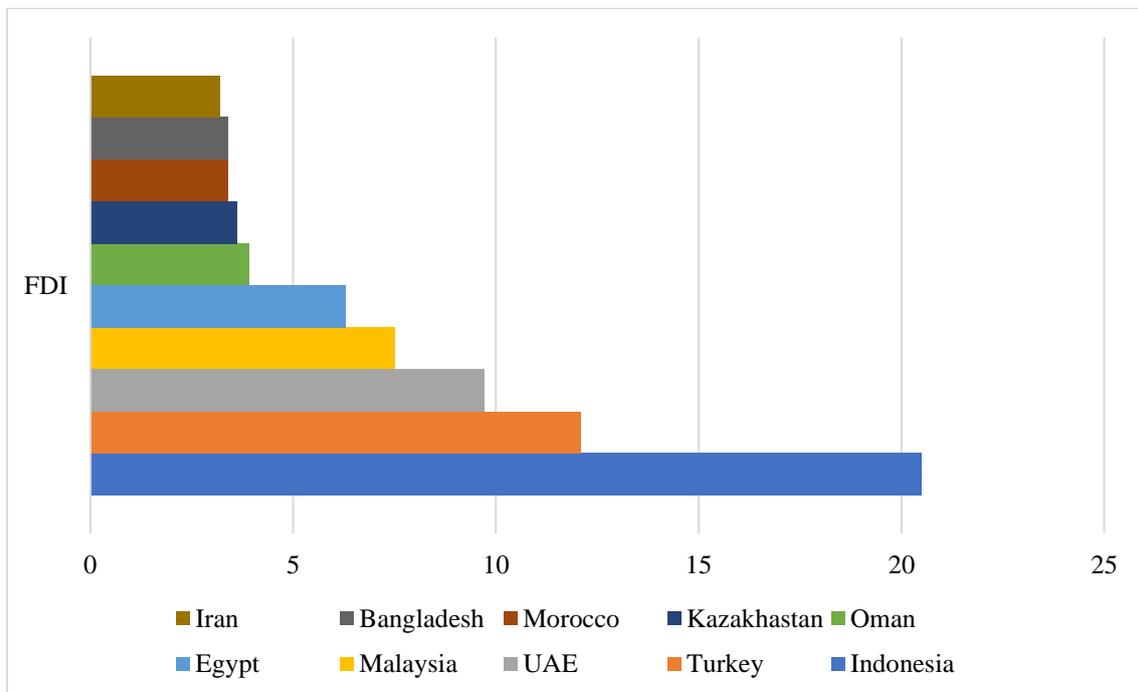
Graph 2. Top 10 host of inward FDI flows in 2018 (US$ Billion)
Source: SESRIC (2019c)

Research Model and Variable Measurement

This study adopts panel data analysis to assess the determinants factors of FDI in selected OIC member countries. Hsiao (1985) explained panel data as a data set that provides multiple observations on each individual in a certain period. In other words, panel data has two dimensions: cross-section and time-series. Thus, some advantages of panel data are offering large data samples and provide a more accurate inference of model parameters (Hsiao, 2007). Furthermore, Eissa & Elgammal (2019) stated that the ability of panel data to reveal the determinants of the dynamics of FDI for a short time series lead numerous researchers to adopt panel data in studying FDI. This study utilized Econometric Views (EViews) 9.0 software to processed the data. The general model is formulated by equation (1):

$$FDI_{it} = \alpha + \lambda_1 GDP_{it} + \lambda_2 TO_{it} + \lambda_3 LnEr_{it} + \lambda_4 Inf_{it} + \lambda_5 HDI_{it} + \varepsilon_{it} \qquad (1)$$

Where: FDI is Foreign Direct Investment; GDP stands for Gross Domestic Product, TO represent Trade Openness, LnEr measures the natural logarithm of Exchange Rate, Inf is an abbreviation for Inflation, and HDI is Human Development Index. Besides, ε_{it} is the term of error and λ is the constant.

From the equation (1) we can confirm that this study applied FDI for the dependent variable, whereas for the independent variables, this study uses five independent variables which selected based on numerous empirical researches finding that has been explained in literature review and hypothesis development section. In details, the independent variables can be described as follows:

Table 1. Variable Explanation

Variables	Definition	Proxy
Foreign Direct Investment (FDI)	This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors and is divided by GDP.	This study is applying FDI net inflows (% of GDP).
Gross Domestic Product (GDP)	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.	This study is utilizing GDP Growth (annual %).
Trade Openness (TO)	The sum of exports and imports as percent of GDP.	This study is adopting Trade (%GDP).
Exchange Rate (LnER)	The number of local currency units that can be exchanged for one USD.	This study is using Official Exchange Rate (LCU per US$, period average).
Inflation (Inf)	Measured by consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals.	This study is employing Inflation, consumer prices (annual %).
Human Development Index (HDI)	Human Development Index (HDI), which measures three basic dimensions of human development: long and healthy life, knowledge, and a decent standard of living.	This variable is represented by 0-1.

Results and Discussion

The panel data regression process is divided into three steps to assign the best model for the estimation result, whether the model used is a common effect model (CEM), fixed effect model (FEM), or random effect model (REM). The three steps include the Chow test, Hausman test, and Breusch-Pagan test. Those three steps are presented in the following section:

Selection of the Best Estimation Model

Chow test

This test aims to compare and choose the best modeling between the CEM and FEM model. The null hypothesis is not accepted if the p-value is smaller than α 5%.

Hausman test

Moreover, by following the chow test result, the next stage to ensure that the FEM model is the best model to be used in this study, the Hausman test is conducted to compare the FEM model with the REM model.

Breusch-pagan Test

The final stage for choosing the best model is done by Breusch-Pagan Test. This test is used to find out the best model between FEM and REM.

The result of the three tests are describing as in Table 2. The test result indicates that by table 2, in Chow test, we can assure that the FEM model is better than CEM. This result expressed by probability Cross-section Chi-Square is 0.0000, which means lower than α 5%, and there are individual effects and significant time. Moreover, according to Hausman test we can clarify that the proper model between the two models is the REM model. The probability value of the Hausman test is higher than α 5% (0.1415 > 0.005). Therefore, in order to test, which is the best

model for this result, the Breusch-pagan test is needed. In the last step which measured by Breusch-Pagan test, we can conclude that by using α 5%, the best model for this study is the REM model. The Both p-value is lower than α 5% (0.0000 > 0.005).

Table 2. Selection of the Best Estimation Model

Redundant Fixed Effects Test – Chow Test			
Effect Test	Statistic	d.f.	Probability
Cross-section F	10.676141	(9.165)	0.0000
Cross-section Chi-Square	82.602288	9	0.0000
Correlated Random Effects – Hausman Test			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Probability
Cross-section Random	8.279730	5	0.1415
Lagrange Multiplier Test – Breusch-pagan Test			
Breusch-Pagan	Cross-section	Time	Both
	109.2769	0.323939	109.6008
	(0.0000)	(0.3537)	(0.0000)

The Regression Model

Regression model in panel data analysis testing is done to select the best model to be used. Table 3 represents the three models:

Table 3. Panel Regression Result for Three Models

Independent Variable	Common Effect Model		Fixed Effect Model		Random Effect Model	
	Coefficient	Probability	Coefficient	Probability	Coefficient	Probability
Constant[1]	-5.2268	0.0023	1.9483	0.5292	-2.3451	0.7393
GDP	0.2050	0.0011***	0.1918	0.0004***	0.2761	0.0003****
TO	0.0157	0.0043***	0.0136	0.1539	0.0282	0.0249**
LnEr	0.5527	0.0000***	-0.5585	0.3377	0.5361	0.5612
Inf	0.0149	0.05871*	0.0498	0.0814*	0.1879	0.1044
HDI	0.0149	0.0104**	4.9045	0.9132	-1.539	0.6721
R-squared	0.238594		0.518809		0.157000	
Prob (F-stat)	0.000000		0.000000		0.000000	

Note: [1] Dependent variable: FDI inflow.
The asterisks, ***, **, and * denote the two-tail statistical significance at 1%, 5%, and 10% respectively.

From Table 3, we can conclude that in Common Effect Model (CEM), several variables include gross domestic product. trade openness, and exchange rate were significant at α 1% this reflected by the probability value were lower than 1% (0.0011, 0.0043, 0.0000 < 0.01), Moreover, inflation was significant at α 10% (0.05871 < 0.1). HDI significant at α 5% (0.0104 < 0.05). Thus, we can confirm that in CEM, all the independent variables play a vital role in driving the FDI in selected OIC member countries during the period of observation. Additionally, in the Fixed Effect Model (FEM), we can confirm that GDP and inflation significantly drive the FDI inflows level, which is indicated by the probability value are lower than at α 1% and 10% respectively (0.0004 < 0.01 and 0.0814 < 0.1). Furthermore, Random Effect Model (REM) reported that GDP and trade openness significant at α 1% and 5% (0.0003 < 0.01 and 0.0249 < 0.05). These results imply that GDP and trade openness were the important factors which consider by the investor in making investment decision in the United Arab Emirates (UAE), Morocco, Indonesia, Turkey, Iran, Egypt, Bangladesh, Kazakhstan, Oman, and Malaysia. In consequence, the FDI inflows significantly affected by those three variables.

From the three models which represented by table 3, the main finding was the consistency of GDP variable in impacting the FDI inflows in the selected countries under observation covering the period from 2001-2018. This result implied that the robustness result for the GDP variables.

Multicollinearity Test

This study involved the use of Variance Inflation Factor (VIF) to test for multicollinearity. The results in table 4.

Table 4. Multicollinearity Test – Variance Inflation Factors

Variable	Centered VIF
GDP	1.118082
TO	1.110417
LnEr	1.497055
Inf	1.156007
HDI	1.465361

Table 4 indicate that all the VIF are less than 10. This VIF value implies that none of the variables is highly collinear.

Discussion

A series test has done to ensure the best model. Based on the Breusch-Pagan test we can conclude that REM is the most appropriate model for this study. Thus, the regression result of REM model is explained in Table 5.

Table 5. Random Effect Model – Estimation

Variable	Coefficient	Probability
C	0.836462	0.7393
GDP?	0.191202	0.0003***
TO?	0.017813	0.0249**
LnEr?	0.156866	0.5612
Inf?	0.044231	0.1044
HDI?	-1.539149	0.6721
Descriptive Statistic		
R-squared		0.157000
Prob (F-stat)		0.00000

Note: [1] Dependent variable: FDI inflow
The asterisks, ***, **, and * denote the two-tail statistical significance at 1%, 5%, and 10% respectively.

Based on the information that shows in table 5, we can find that Prob (F-Statistic) is 0.0000 with confidence level at α 1%; the F-statistic test in this current study reveals probability value is higher than 0.01. This value implied that GDP, trade openness, exchange rate, inflation, and HDI simultaneously were the determinants factors of FDI inflows in ten selected OIC member countries over the period for 18 years from 2001-2018. Moreover, from the same table, we can verify that R-Squared for the model is 0.157000, which indicated that about 15.7% of changes in the percentage of FDI inflows in OIC countries are explained by GDP, trade openness, exchange rate, inflation, and HDI variables. The R-Squared value in this model is likely low, which indicated that the independent variables are not explaining much the variation of FDI inflows. In other words, there are several important variables which not included in this model.

Moreover, from the above table, we can signify that the increase of GDP growth, which represents the rising of total consumption as well as production positively affects the FDI inflows in selected OIC member countries over the period 18 years from 2001-2018. This result measured by the level of significances is lower α 1% (0.0003 < 0.01), and the sign of coefficient was positive. This statistical information indicates that H1 is accepted. This study supported by several previous studies such as Onafowora and Owoye (2019), Maryam and Mittal (2020), Kishor and Singh (2015), Alfaro et al., (2004), Asiamah et al., (2019) and Saini and Singhania (2018). From this result, we can declare that the stable and promising countries, which reflects by the increasing of GDP continuously, will engage the higher level of foreign investors' interest. Furthermore, the main

variables that express the whole national economic condition are GDP. Thus, the acceleration of market size, total expenditure, total revenue, consumption, production, as well as net export of the host country significantly will attract the FDI inflows, specifically in the top 10 hosts of inward FDI flows of OIC members countries.

This research reveals that there is a strong correlation between Trade Openness and FDI. The statistic result confirms that the probability value of TO is lower than 5% (0.0249 < 0.05). Moreover, the coefficient value for TO is positive, which implies the more openness of the host countries towards foreign trade, the most Foreign Direct Investment inflows come to the country. This result implied that H2 is accepted. In the ideal scenario, the competitive market will encourage firms to run efficiently and effectively. Moreover, trade globalization gives more opportunities for a country to gain broader market shares and adopting advanced technology, which affects the higher productivity of the business. Consequently, foreign investors will be interested in investing their money. The result of this study in line with some research conducted in various regions. Such as Sahu (2020), Alfalih and Bel Hadj (2020), Maryam and Mittal (2020), and Saini and Singhania (2018). Similarly, Eissa and Elgammal (2019) also ascertained that in oil-rich countries such as Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates, trade openness is one of the essential factors which determine the FDI inflows.

Furthermore, this study also demonstrated that H3, H4 and H5 were not accepted. These results showed by the probability values of the exchange rate, inflation, and human development index were higher compared to the level of significance. This result implied that the changes in the exchange rate of UAE, Morocco, Indonesia, Turkey, Iran, Egypt, Bangladesh, Kazakhstan, Oman, and Malaysia do not have a significant impact on FDI inflows. This result from this case might occur due to most of the countries under this observation has pegged their country currencies to USD, since the US is the largest oil importing country in the world (Khan et al., 2019). Thus, the volatility of USD does not have a significant impact on the domestic currency, which usually affects the investors' decision. The pegged system currency also provides an advantage such as does not get affected by the global condition. Besides, this study found that FDI is not driven by the volatility of inflation level. This result similarly with previous study conducted by Jaiblai and Shenai (2019) in the context of Sub-Saharan, which discovered that in the long-term, inflation does not have significant impact on FDI inflows. The study suggested that the Sub-Saharan countries should pay more concern on the stabilization of macroeconomics variables. Additionally, Sajilan et al. (2019) found that the impact of inflation towards FDI in OIC countries is not robust for the random and fixed models effect. Interestingly, numerous studies such as Ibhagui (2020), Asiamah et al. (2019), and Onafowora and Owoye (2019) which explained that the lower rate of inflation indicates the stable economic condition and the strong purchasing power parity of local consumer. Which in turn, will leads FDI inflows into a higher level due to the small investment risk. Moreover, Eissa and Elgammal (2019) revealed that in oil-rich countries, which is also a member of OIC countries, human resource quality, which reflected by the labour force, has a negative and insignificant correlation with FDI. The author explained that labour nationalisation policy has created several policies in order to increase the secure jobs which benefit to national. This policy degrading the flexibility of labour market in the private sector, which lower FDI inflows due to the declining of private sector performances.

Conclusion

This paper investigates the factors which cause Foreign Direct Investment (FDI) inflows in 10 out of 57 OIC member countries, which are the top 10 hosts of inward FDI flows countries, includes the United Arab Emirates (UAE), Morocco, Indonesia, Turkey, Iran, Egypt, Bangladesh, Kazakhstan, Oman, and Malaysia covering the period from 2001-2018. This study applied four macroeconomy as independent variables. Includes GDP, trade openness, exchange rate, inflation, and HDI. This study reveals that GDP and trade openness were positive and significantly shaping the FDI inflow. While the exchange rate, inflation and HDI do not have a vital role in influencing the FDI inflow. Moreover, this study also demonstrated that the impact of GDP variable towards

FDI is robust on the three equation models, namely, common effect model, fix effect model, and random effect model.

Furthermore, based on the results, this study suggests that the member of OIC countries should provide a conducive investment environment in order to gain the investor's attention and to multiply the FDI inflows level. This environment is indicated by a higher growth GDP. The increasing of GDP implies that the rapid growth of economic activities. Moreover, it also reflects the expansion of domestic consumption as well as domestic expenditure. Thus, this can be seen as the positive signal for the investor that the progressive return of investment is promising. In addition, OIC member countries need to engage in various international trade agreements in oder to encourage their potential market size and enhance the efficient production through the adopting the advance technology.

Besides, the rules which describe the investment priority amongst the member of OIC countries must be ratified immediately to decrease the percentage of the FDI inflows goes to non-OIC members. In a broader view, the results from this study bring informative guidance for the others member of OIC countries to attract more FDI inflows as the financial resources for the development of their projects. The main limitation of this study is the lack of a variable that represents the Islamicity index, which can measure the value of Shariah amongst OIC members to test the impact of Shariah compliances in helping fellow Muslims, which is an obligation in Islam. Furthermore, by applying the Islamicity index score as calculated by the Islamicity Foundation (2019) which measured the economy, legal and governance, human and political rights, and the international relations aspects would provide the newest perspective on the differences driven factors of FDI between Muslim and non-Muslim countries organization. Therefore, the continuous effort is needed to be undertaken to fill this gap and deepen this topic.

Author Contributions

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Investigation: Indri Supriani
Methodology: Indri Supriani
Project administration: Indri Supriani
Supervision: Bayu Arie Fianto
Validation: Bayu Arie Fianto
Visualization: Indri Supriani
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