

## Determinants of Economic Growth in Organization of Islamic Cooperation with Governance Index as a Moderating Variable



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**ABSTRACT:** This study seeks to explore and investigate the influence of foreign direct investment, remittances, and trade openness on economic growth in the Organization of Islamic Cooperation with governance index as a moderating variable in 2005-2019. Moderated Regression Analysis analysis is used to analyze governance index variables. The use of Generalized Least Square and Generalized Method of Moments is used to determine which method is best. Sargant level of significance and value showed GMM more precisely in this study. The results of statistical testing show that all independent variables have a significant positive influence on economic growth except foreign direct investment which has a significant negative influence. This negative influence is due to the instability of investment flows. In addition, governance index can moderate foreign direct investment, remittances, and trade openness in its influence on economic growth. Thus, it can be concluded that to increase economic growth, the need for good governance index so that economic growth in the Organization of Islamic Cooperation is increasing.

**KEYWORDS:** Economic Growth, Foreign Direct Investment, Remittances, Trade Openness, Governance Index

### INTRODUCTION

Economic growth is already a crucial issue reviewed by the government because significant economic growth rising will be a benchmark for the success of a country's development. Although this increase in growth does not necessarily explain that all people must prosper, with high economic growth, the level of community welfare can be achieved relatively (Wibowo, 2020 and Dynan & Sheiner, 2019). Following the duties of the state, the government is obliged to improve the welfare of its citizens. Prosperity can be achieved when economic stability is achieved well, which can be seen from several criteria, such as rising national income, as well as poverty, and low unemployment. Therefore, the determination of economic growth targets of each country must always be considered, for the country's goals to be achieved as they should be (Sukirno, 2008).

However, the question is how much does the economic growth of the Organization of Islamic Cooperation (OIC) make to the global economy? Based on data obtained from the OIC Economic Outlook (2019), the economic growth of OIC countries did not significantly contribute to global economic growth. In addition, the share of OIC countries in the total GDP of developing countries continues to decline and was recorded at 25.8% in 2018, decreasing by 0.5% since 2015. This indicates that economic growth in OIC countries is still below that of countries outside the OIC.

Foreign Direct Investment (FDI) plays a crucial role in economic independence, as FDI not only offers investable capital but also helps host countries to access advanced technologies that can accelerate growth productivity in their countries (Ibhagui & Oyakhilome, 2017). This is supported by Supriani & Fianto, (2020) which states that the existence of FDI will increase production productivity will trigger efficiency and production activities. FDI or foreign direct investment can be measured in a variety of ways, for example by including several factors, such as size, depth, access, and accuracy of the financial system. It can also be measured by investigating the actions of different banks and markets.

There are many problems related to economic growth and direct investment in OIC countries that have been studied in the literature (Dolgoplova, 2011), but these measurements remain unresolved, such as the lack of modern technology in a country, high unemployment rate, and many others (Mustafa El. Hamoudi, 2017).

Other than FDI, remittance inflows have increased in recent years and have become external finance in an OIC country (Perez-

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Saiz, Dridi, Gursay, & Bari, (2019). This can be proven in figure 1 below:

**Figure 1 Remittance Growth in OIC Countries**



Source: OIC Economic Outlook, 2020

Where the 1 figure above shows that the influx of remittances into OIC countries increased from US\$ 142.6 billion in 2014 to US \$ 163.3 billion in 2019. In addition, the contribution of OIC country remittances to the global economy also increased from 24.8% in 2018 to 25.2% in 2019.

Remittances enter through formal banking channels not only promote the financial sector (Aggarwal, 2011), but also increase the foreign exchange reserves of the receiving countries. Higher remittance inflows can improve the development of the domestic financial sector. This could trigger the government to reform for better access to banking (Shirazi, Javed, & Ashraf, 2018). So remittances are considered a vital and stable source of funding for economic development in a developing country that exists in OIC countries.

The other object of discussion is trade openness. The relationship between economic growth and trade openness is one of the most heated arguments in the literature (Durak & Eroğlu, 2019). The openness of trade can provide opportunities to export goods whose production factors use abundant resources and import goods whose production factors are rare or expensive if produced in the Country. The achievement of trade liberalization, it will cause the country's economy to be better (Heriqbaldi, 2015). This is supported by the theory of modern economic growth, economic openness is believed to encourage the economic growth of a country (Rahmi Nuraeni & Bagio Munakir, 2019).

In addition to the above economic determinants, governance index is also an important key direction of the development of a country (Kim, Wu, & Lin, 2018), especially in the financial sector, investment, even in export and import affairs. Where the sector that wants to develop in a region is in dire need of government policies, such as rules of play, regulation, and other policies that are sustainable. In OIC countries themselves, which are still mostly developing countries, many efforts are made by each government to continuously evaluate policies issued to boost economic growth significantly. The government's efforts are nothing but to support economic growth and the welfare of its people, such as research conducted by Ashraf (2020) and Bedane & Kitenge (2017).

The statement was supported by Nistotskaya & Cingolani (2016) which showed that there is a moderating effect of governance index variables on economic growth. However, the governance index is not the only major factor in the development, such as Wilson's research (2016) and Nyasha & Odhiambo (2019) which stated that government has not been sufficiently able to drive rapid economic growth.

This research is interesting to do because it seeks to explain the economic growth model driven by governance index as a contributing factor to economic growth in OIC countries. Research on the influence of determinants of economic growth (FDI, Remittances, and Trade Openness) has been conducted by several previous researchers, as mentioned above. However, the addition of governance index variables as Moderation variables as well as comparing the generalized least square (GLS) model with the generalized method of moments (GMM) model were a novelty in this study. OIC countries are chosen as research objects because they will provide empirical pictures and evidence on the determinants of economic growth (FDI, remittances, trade openness). So it will be an evaluation material for OIC countries to make their economic growth to a better level.

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## THEORETICAL BACKGROUNDS AND CONCEPTUAL MODEL

### Economic Growth (GDP)

Tambunan (2001) explained that economic growth is the addition of Gross Domestic Product (GDP), which means the addition of national income. In other words, economic growth is an increase in per capita income in a certain period (Iskandar, 2013). Economic growth is used as an important indicator to measure the success of a country's development (Smith, 2005). Todaro (2000) explained that if the level of national income is increasing significantly, economic growth is a process of increasing the production capacity of the economy comprehensively and continuously or continuously all the time. So that economic growth according to Sukirno (2006) is the development of activities in the economy that cause goods and services produced in the community to increase and improve the welfare of the community. Referring to the explanation, the increase in per capita output is continuously referred to as economic growth that will increase national income. This increase according to Todaro and Smith (2011) is a multidimensional process that involves major changes in national social, popular, and institutional structures, as well as reducing inequality, and reducing poverty.

Husnul, Hidayat, & Sulasmiyati (2017) explained that Gross Domestic Product (GDP) is believed to be the best economic indicator in assessing the economic development of a nation. GDP according to Mankiw (2010) is the total income of all people in an economy/ country or also the total expenditure of goods and services products in the economy. Todaro and Smith (2011) further explained that GDP is an indicator that measures the final output of goods and services produced by the economy of a country, both by the population (citizens) themselves and non-residents, regardless of whether the production of such output will be allocated to the domestic or foreign markets.

Mankiw (2006) uses the term PDB components, namely GDP which is shown as Y divided into four components, namely consumption, investment, state spending, and exports and imports. This calculation of national income has a major macro measure of the condition of a nation. If GDP is calculated on an average basis divided by the total population of a country, it is called GDP per capita (Rudiger Dornbusch, 2011). The equation widely used to explain the formation of PDB is  $Y = AD = C + I + G + (X - M)$  (Mankiw N. G., 2010).

### Foreign Direct Investment (FDI)

The growth models of Harrod (1939) and Domar (1947), savings were key that drove capital accumulation and growth. Rostow (1959) seems to provide evidence that savings are needed for development. Because collecting savings may be difficult in the long run, especially for developing countries, global economists such as the IMF and world bank advise countries to borrow savings from abroad, including FDI. This is emphasized to achieve the targeted growth rate. Supported by Johnson (2006), that making the foreign direct investment will trigger domestic productivity and will boost economic growth. Rahajeng (2016) explained that Foreign direct investment was first developed by Hymer (1965) by developing a modern monopolistic theory of excellence that shows that foreign direct investment occurs more in oligopolistic industries than in industries that operate in near-perfect competition. Hymer's emphasis on foreign direct investment is maximum profit by mastering resources.

In addition to Hymer, Vernon (1966) also in his book "International Investment and International Trade in The Product Cycle" explains the product lifecycle model, including the innovation stage, the search stage of corporate companies and exporting, as well as the optimization stage of profit. The first stage explains that before the product is marketed first conducted a variety of evaluations ranging from product design to target market analysis so that the resulting product can still be marketed domestically. The second phase is to cooperate with companies located abroad as well as determining the market for export. Furthermore, the third stage is product optimization and marketing to obtain maximum profit Foreign Direct Investment is an index of financial development that many countries use this indicator as a determinant of its growth. Governments in a country are actively seeking to attract foreign investment because they believe that multinational companies will contribute to economic growth by creating new jobs, increasing capital accumulation, and increasing productivity (Keykanloo, Hosseini, Jazeh, & Askari, 2020). Developing countries use FDI as one of the growth indicators to achieve sustainable prosperity so that they can become a developed country.

H1: Foreign Direct Investment has a significant positive effect on economic growth.

### Remittance

Remittances are an important indicator to advance economic growth in a country (Meyer & Shera, 2017). Bank Indonesia (2009) defines remittances as part of the salaries or income of Indonesian workers sent from their families working abroad to their families in the country. Remittances can increase household consumption in a country, both rural and urban can even cause a large multiplier effect, because they are more likely to spend the production of domestic goods (Ratha, 2005). Giuliano & Ruiz-Arranz (2009) explained that remittances or remittances can increase capital allocation, increase development and accelerate economic growth. Akay (2012)

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defines remittances as a form of remittance that becomes big cash for the whole world, where when workers in the country have high mobility then remittances are also abundant. For this research, remittances are defined as the flow of funds in the form of cross-border remittances made by Labor to families or relatives through Indonesian financial institutions within a certain time. This transaction is usually done by the workers every month to meet the needs of families in the area where the labor originated.

H2: Remittances have a significant positive effect on economic growth.

### Trade Openness

Trade theory was developed between the late 1980 and early 1990, focusing on studying the relationship between international trade and economic growth. Two views on the advantages of trading are static views that look at a certain point in time of trade growth and a dynamic view, in which economists also want to know the instrument, how trade affects growth, and how it grows over time, and to understand the relationship between trade openness and economic growth (See Romer, 1986; Lucas, 1988). The growth theory and endogenous transaction costs proposed by Williamson (1975) explain that open trade allows a country to reform production factors in areas where it has comparative advantages. It also highlights that in the long run, greater stability can be achieved by increasing specialization and lowering input costs. This argument is also supported in the theory of the international product life cycle by Vernon (2017). In addition, Mudakir (2019) explained that trade openness is believed to boost economic growth.

Based on the argument above, the purpose of trade openness in this study is cooperation in the form of international trade in goods, services, or assets between one country to another.

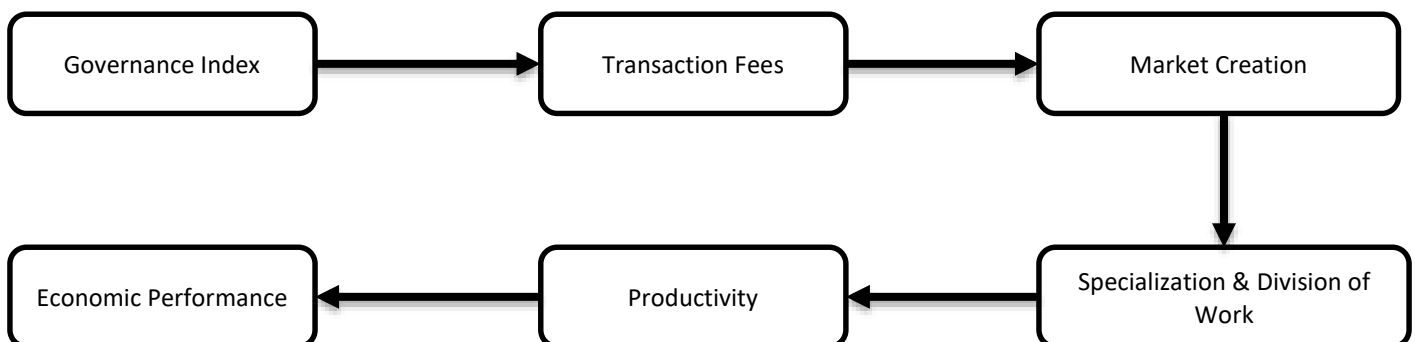
H3: Trade openness has a significant positive effect on economic growth.

### Governance index

Governance index is an institution that has various rules in limiting human behavior to build the structure of political, economic, and social interaction (Wibowo, 2020). Institutional has 3 components, namely 1) formal rules (formal institutions) which include the constitution, status, law, and all government regulations; 2) informal rules (informal institutions) which include experiences, traditional values, religions, and all factors that influence the formation of an individual's subjective perspective on the world in which they live; 3) enforcement (enforcement), namely enforcement of various rules and agreements formed (North, 1994). So institutional does not depend on the aggregation of individual actions or even the game of patterned interaction between individuals, but it is the institution that composes the action (Clemens & Cook, 1999).

Along with the actions of institutions in the field of economics, the institution will also determine the cost of transactions and production to also affect profitability and possible involvement in economic activity. Therefore, the (Yunika, 2013) role of institutional / governance index to economic growth can be analyzed using transaction cost theory or transaction cost theory that arises as a result of market failure. Where figure 2 below according to (Erani, 2013) Wibowo (2020) that the lower the cost of transactions that arise from economic activities, it shows an already efficient institutional, and vice versa that if the higher the cost of transactions, it describes an inefficient institution. Therefore, Erani explained that to achieve low transaction costs, two paths can be done. First, make rules (formal or informal) that guarantee the certainty of economic actors conducting transactions or exchanges (exchanges). Second, strengthen the enforcement system if there is a problem in the transaction process (Erani, 2013).

Figure 2. Flow of Transaction Cost Impact on Economic Growth



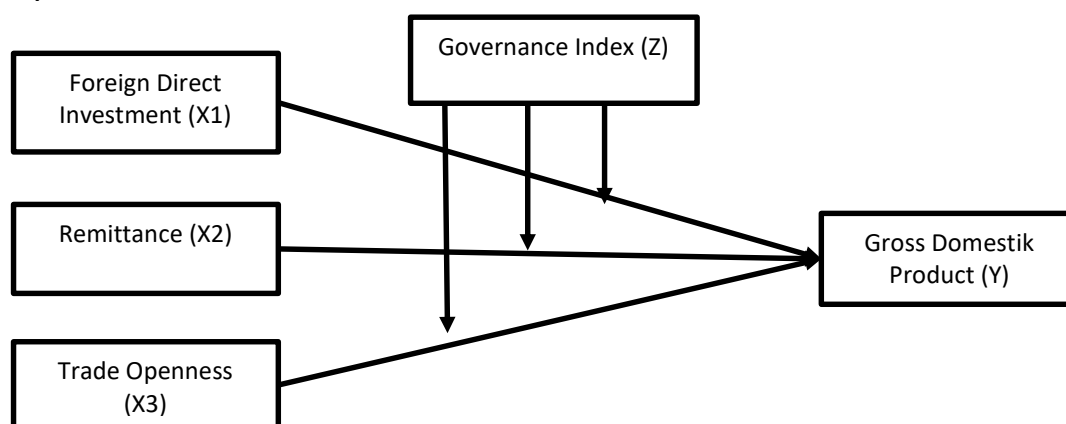
H4: Governance index can moderate the influence of foreign direct investment on economic growth in OIC countries.

### Conceptual Framework

Based on the objectives of the research, the theoretical framework in this research is as follows:

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Figure 3 Conceptual Framework



## RESEARCH METHODS

The samples used in this study were 31 of the 57 OIC countries. The sample was selected based on the amount of data available at the World Bank (WB) in 2005-2019. Meanwhile, for data analysis using generalized least square (GLS) for static panels, generalized method of moments for dynamic panels, and moderated regression analysis (MRA) as a test of the interaction between foreign direct investment, remittance, and trade openness variables on economic growth.

## RESULT AND DISCUSSION

### Descriptive Analysis

The value of the governance index index (INS) if the average of the research period, then obtained the following table:

Table 1 Average Value of Governance index Index 2005-2019 (%)

Country	Value	Country	Value	Country	Value
Albania	-0.226	Peru	0.67	Iran	0.43
Algeria	-0.808	Tajikistan	0.39	Pakistan	0.93
Arab Saudi	-0.259	Turkmenistan	0.22	Seychelles	0.94
Azerbaijan	-0.657	Yemen	0.62	Sierra Leone	0.72
Bangladesh	-0.962	Malaysia	0.92	Liberia	0.75
Benin	-0.396	Libya	0.08	Sierra Leone	0.57
Gambia	-0.480	Madagascar	0.02	Timor-Leste	0.78
Guinea	-1.133	Egypt	0.19	Yemen	0.77
Guinea Bissau	-1.142	Zambia	0.29	Yemen	0.24
Indonesian	-0.530	Ukraine	0.08	INS Index Average of OIC countries: 0.608	
Iraq	-1.471	Ethiopia	0.75		

Source: processed data

Based on the average value of the country governance index described in table 1 above, it can be seen that only 3 OIC countries achieved positive average values, namely Malaysia, Oman, and Jordan. While the other 28 OIC countries showed negative average values with the lowest value of -1,471 for Iraq. Coupled with the overall average value of the OIC country index of -0.608 which indicates that the OIC country governance index has not achieved good governance, because given the assessment conducted by the world governance indicators (WGI) is -2.5 – 2.5.

Table 2. Descriptive Statistics

	GDP	FDI	REMIT	TO	INS
Mean	3694.328	2.83	2.61	72.03	-0.61
Median	1507.450	1.06	4.73	67.91	-0.65

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<b>Maximum</b>	25243.36	3.95	2.68	203.85	0.48
<b>Minimum</b>	292.3493	-1.02	2435105	20.72	-1.72
<b>St. Deviation</b>	4844.644	5.07	4.57	30.17	0.42
<b>Observation</b>	465	465	465	465	465
<b>Probability</b>	0.000000	0.000000	0.000000	0.000000	0.119882

Source: processed data

Based on the results of descriptive statistical tests above, it can be known some characters that appear on each of the research variables. First, the data in this study is considered to be eligible for normality because the amount of data used > 30 (large or more than 30) with the specifications of 31 OIC countries that are used as research samples, with an estimated time for 15 years (2005-2019), the total number of observations used as many as 465 observations.

### Generalized Least Square (Static Panel)

Table 3. Static Panel Data Regression Test Results

Variable	Common	Fixed	Random
<b>C</b>	0.0000 (3567.232)	0.0000** (4934.952)	0.0000 (4771.847)
<b>FDI</b>	0.0000** (4.45E-07)	0.1406 (-3. 62E-08)	0.3410 (-2.33E-08)
<b>Remit</b>	0.0000** -8. 38E-07)	0.0109** (1.96E-07)	0.0319** (1. 62E-07)
<b>T. Openness</b>	0.0011** (28.36882)	0.0018** (-17.59389)	0.0142** (-13. 43860)
<b>into</b>	0.0002** (4013.124)	0.5447 (-349.8316)	0.7850 (-156.1749)
<b>FDI*INS</b>	0.0666 (1.81E-07)	0.8190 (1.01E-08)	0.5750 (2.46E-08)
<b>Remit*INS</b>	0.0000** (-9.16E-07)	0.1081 (1. 27E-07)	0.2311 (9.37E-07)
<b>T. Openness*INS</b>	0.9238 (-1.052384)	0.0905 (9.552747)	0.0802 (9. 800969)
<b>R-squared</b>	0.424402	0.947544	0.102642
<b>Prob (F-statistics)</b>	0.0000	0.0000	0.0000
<b>Number of Observations</b>	465	465	465
<b>Number of Instruments</b>	31	31	31
<b>Chow Test</b>		0.0000**	
<b>Uji Hausman</b>			0.0000

Source: processed data

### Generalized Method of Moment (Dynamic Panel)

Table 4. GMM Dynamic Panel Data Regression Test Results

variable	Difference GMM (1)	System GMM (2)
GDP (-1)	0.0000** (0.628453)	0.0000** (0.626682)
FDI	0.0000** (-3. 86)	0.0000** (-7.91)
REMIT	0.0000** (1.85)	0.0000** (7.69)



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T.O.	0.0000** (8.92)	0.0000** (-1.55)
INS	0.0000** (-2363.044)	0.1402 (-72.20587)
FDI*INS	0.0000** (-2.02)	0.0000** (-6.69)
REMIT*INS	0.0000** (1.60)	0.0000** (6.22)
T.O*INS	0.0000** (8.82)	0.5697 (-0.22)
<b>Number of observations</b>	<b>465</b>	<b>465</b>
<b>Number of instruments</b>	<b>31</b>	<b>31</b>
<b>Sargant Test</b>	<b>0.322893</b>	<b>0.095454</b>

Source: processed data

Based on chow and Hausman tests in table 3, the fixed-effect model (FEM) is the best in this static panel regression, because it obtains a probability value of 0.0000 or small from 5%. In addition, the value of the coefficient of determination also shows a considerable value compared to other models, which is 0.947544. This result makes sense because the f-statistical probability value shows the simultaneous influence between independent variables on dependents. In addition, supported by the coefficient of economic growth of OIC countries shows a significant positive value that implies that the greater the determinant of economic growth, it will have a better impact on growth. This result is supported by some scholars, such as Shirazi et al (2018) and Supriani & Fianto (2020).

While the results of the estimation and discussion in table 4 above show equations 1 and 2 as models to show the influence of independent variables and overall institutional quality on dependent variables. From the two model estimates offered above, there are insignificant variables in the estimation of equation 2 (GMM system), to avoid bias, then this study uses the estimated equation 1 (difference GMM) as the best estimation model (Ullah, Akhtar, & Zaefarian, 2018 and Dessy & Setiawan, 2016). This is supported by Widarjono & Anto's research (2020) which explains that the model chosen is a model that has a good significance and the amount of sargant value.

From these two static and dynamic panel data regression models, it proves that the GMM model is better compared to GLS because all the data presented shows validity, with a large sargant value of  $\alpha$  5%. In addition, the significance of the GMM model is much better compared to the GLS model. This explanation is in line with Widarjono & Anto (2020).

### MODERATED REGRESSION ANALYSIS (MRA)

#### Governance index Variable Moderation (INS) Function to Foreign Direct Investment/ FDI (X) and Economic Growth /GDP (Y)

Referring to the institutional variable probability value and the model variation "institutional\*foreign direct investment" which each probability value is 0.00, as well as the t-statistical direction for each variable negative for institutional (-2363.044) and (-2.02), for "foreign direct investment\*institutional", then the moderation type in this variation of this model is a quasi moderator or pseudo moderation. This means that variations of the governance index model (INS) incorporated into the equation model have the potential to be moderator variables.

#### The function of Moderation of Governance index Variables (INS) to Remittance Variables (X) and Economic Growth / GDP (Y)

Referring to the institutional variable probability value and the model variation "institutional\*remittance", each of which is a probability value of 0.00, as well as the t-statistical direction for each variable which is negative for institutional (-2363044) and positive for "institutional remittance\*" (1.60), then the moderation type in this variation of this model is a pure **moderator** or full moderation. Wherewith the variables of governance index in full has interaction with the remittance variables.

#### The function of Moderation of Governance index Variables (INS) to Variables of Trade Openness (X) and Economic Growth / GDP (Y)

Referring to the institutional variable probability value and the model variation "institutional\*trade openness", each of which is a probability value of 0.00, as well as the t-statistical direction for each variable where negative for institutional (-2363.044) and

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positive for "institutional trade openness" (8.82), then the moderation type on this variation of this model is the pure **moderator**. This result explains that the variables of governance index can moderate the variables of trade openness in its influence on economic growth.

### **DISCUSSION**

#### **The Influence of Foreign Direct Investment (FDI) on Economic Growth**

Based on the results of the statistical test above, the probability value for the foreign direct investment (FDI) variable coefficient indicates a negative but significant number with a probability value of 0.00 ( $<0.05$ ). That is, the data test results do not match the hypothesis developed by the researchers. Where variable foreign direct investment (FDI) has a significant positive effect on economic growth.

Referring to the results of the hypothesis testing above, these results are not relevant to Hymer's theory (1965) which states that foreign direct investment will trigger productivity and boost economic growth. In addition, the results of this study were not able to confirm previous studies, such as research conducted by Okwu, Oseni, & Obiakor, (2020) which showed that foreign direct investment (FDI) has a significant positive effect on economic growth in 30 global countries. Another study that failed to be proven is Bouchoucha, Najeh, and Ali (2019) research showing the same reality, where foreign direct investment triggers economic growth.

Although the above research shows a significant positive influence on economic growth, Yusuf (2020) argues that foreign direct investment (FDI) could have a significant negative influence on economic growth due to several internal factors of the country, such as regulation, interest rates, tax, political stabilization and other policies regulated by the government in each particular country. In his research also explained that to gain the trust of foreign investors, government policy must be considered, to facilitate the inflow of FDI into the country. In addition, investments made by some foreign countries are not only in the form of capital money or tools, but investments by sending labor, resulting in unemployment because companies that are supposed to be filled by residents are instead replaced by workers from foreign countries (Said, Hamid, & Mazlan, 2020 and Awad, Yussof, & Ismail, 2015).

This significant negative finding is in line with Herzer (2010) which studied the impact of foreign direct investment (FDI) on economic growth in 44 developing countries. The results showed a significant negative influence on growth. This is due to dependence on natural resources and instability of foreign direct investment flows into 44 developing countries. In addition, Kholis (2012) researched the influence of FDI, exports, and imports on Indonesia's economic growth. He found evidence that FDI and imports had a significant negative effect on growth. In contrast to exports that give a significant positive effect. These results show that the main driver of economic growth in Indonesia is still dependent on exports.

#### **The Effect of Remittances on Economic Growth**

Tests on the relationship of remittances to economic growth in this study showed a significant positive influence on the economic growth of OIC countries with a probability value of 0.0000 or less than  $\alpha 0.05$  ( $<5\%$ ). That is, the results of this study are in line with the hypothesis developed, namely remittances have a significant positive effect on economic growth.

Thus, the above hypothesis testing is relevant to Giuliano & Ruiz-Arranz's theory (2009) explaining that remittances or remittances can increase the capital allocation, increase development and accelerate economic growth. These results also confirm previous studies, including Kumar, Stauvermann, Patel, & Prasad (2018) which showed a long-term positive influence between remittances related to Kyrgyzstan and Macedonian economic growth. Another research that was confirmed was a study conducted by Jude Eggoh (2019) that studied the relationship of remittances to economic growth in 49 developing countries. The results showed that remittances had a significant influence on economic growth in 49 developing countries.

In addition, research conducted by Shirazi et al., (2018) also showed similar results and in line with the results in this study, where remittances have a significant positive impact on economic growth in 7 African countries that are included in the OIC countries.

Based on the phenomenon of the above findings, that remittances carried out by OIC countries have a significant positive influence on economic growth. This indicates that the impact of the workforce outside the country of origin is to help the country to control economic stabilization, such as reducing unemployment, increasing productivity, building infrastructure, improving access to various services, and many others.

#### **The Effect of Trade Openness on Economic Growth**

The next test is the relationship between trade openness and economic growth. The probability value obtained after conducting statistical tests is 0.0000 ( $< 0.05$ ) which explains that trade openness positively affects the economic growth of OIC countries. These findings prove that the hypothesis listed by the researchers is accepted.

These findings prove Romer's theory of economic growth (1986) and Lucas (1988) where trade openness influenced growth.



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In addition, it also accepts the modern theory proposed by Mudakir (2019) which explains that trade openness is believed to encourage economic growth. This result also confirms research conducted by Keho (2017) which studied the impact of trade openness on the ivory coast's economic growth in 1965-2014. Keho's research shows that trade openness is positive to economic growth both short-term and long-term.

The results of this study also confirmed research conducted by Widyawati (2017) on the impact of trade openness on GDP in ASEAN 5 countries and showed the results that trade openness has a significant positive correlation to economic growth. For OIC countries, Supriani & Fianto (2020) recently investigated the relationship of trade openness to economic growth in 10 OIC countries. After conducting statistical tests, they showed that there was a significant positive relationship to economic growth.

The findings above prove clearly that economic openness realized by exports and imports conducted by the government will have a positive impact on the economic growth of OIC countries. With the course of exports, it will increase the country's foreign exchange, increase employment due to rising productivity, expand production, and the like. While the benefits of imports for the country are to obtain products or services that are not available, obtain modern technology, obtain raw materials, and maintain price stability. This is all a factor in economic growth in OIC countries.

### **The Influence of Foreign Direct Investment (FDI) on Economic Growth with Governance Index (INS) as a Moderating Variable**

MRA model testing of foreign direct investment (FDI) relationship to economic growth in this study was not able to show a significant positive relationship so the theory from Johnson (2006). As a model reconstruction, governance index variables (INS) are involved in the research model to be used as moderation variables. After testing, the results showed that governance index variables (INS) showed negative interactions with FDI variables in influencing economic growth variables. It is based on a coefficient value that indicates a negative value of -2.02. However, when compared to the coefficient value (-3.86) of the direct influence of FDI on GDP, it is clear that there is a moderation of governance index (INS) in FDI to its influence on economic growth even though its value still shows negative values. This evidence illustrates that governance index (INS) still needs to evaluate so that the negative value can be positive and contribute more to the economic growth of OIC countries.

Adeboye, Osabohien, Olokoyo, Matthew, & Adediran, (2020) explained that foreign direct investment flows into a country because of the policies of its government although it will have the opposite impact. This impact can show negative value because if analyzed if the government too presses FDI into the country of origin because it will have a negative impact, but the government pays attention to other factors, such as emotional relations to the relevant country to harm other cooperation.

This discovery is in line with research conducted by Wilson (2016) which in his research found that governance index is not the main key in improving the economic growth of a country. Therefore, the research that cannot be confirmed in this study is the research of Behera, Mishra, Priyadarshini, & Satpathy (2020). The results of the statistical test show that there is a positive interaction between the variables of governance index (INS) to economic growth in developing countries.

### **Effect of Remittances on Economic Growth with Governance Index (INS) as Moderating Variables**

The next test of the MRA model is to look at the relationship between remittances to economic growth and governance index as moderating variables. The test results showed that there was a significant interaction between governance index variables (INS) and remittance variables in influencing the economic growth of OIC countries. This is based on a probability value of 0.0000 which is small from  $\alpha$  0.05 (<5%), so that the results of this study are in line with the hypothesis proposed by researchers, namely governance index (INS) can moderate remittance variables in their influence on economic growth.

This research is in line with research conducted by Bayar (2016) which makes WGI an indicator of moderation variables. He explained that in general, the variables of governance index can moderate the relationship of remittances to economic growth. In addition, Saad & Ayoub (2019) also showed the same result, which is a significant positive result.

This phenomenon provides evidence that governance index (INS) can moderate remittances to economic growth. Good governance index will have a positive impact on remittances and will contribute to economic growth. These contributions can include increasing state revenues, improving the financial sector, reducing unemployment, and many others.

### **Effect of Trade Openness on Economic Growth with Governance Index (INS) as Moderating Variables**

The latest MRA model test is looking at the relationship of trade openness to economic growth with governance index as a moderating variable. The statistics show a probability value of 0.0000 or less than  $\alpha$  0.05, so the results of this study prove that there is a significant positive interaction between governance index and trade openness variables in influencing the economic growth of OIC countries.

This finding is in line with the hypothesis developed by researchers, namely that governance index can moderate the influence of trade openness on economic growth in OIC countries. The findings are in line with several studies, such as Raghutla (2020) which

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states that trade openness has a considerable positive influence on economic growth in five regions of emerging market economies. In addition, Omoke & Opuala–Charles (2021) explained that exports have a significant positive influence on economic growth in Nigeria.

But Omoke added that imports have a negative influence on Nigeria's economic growth due to the poor quality of institutions. Based on the phenomenon, it can be explained that good and quality governance index can help channel dividends from trade openness to increase the economic growth of a country.

### CONCLUSION

1. Foreign direct investment (FDI) has a significant negative impact on economic growth in OIC countries. These findings explain that direct investment flows in OIC countries have not been fully well realized.
2. Remittances have a significant positive influence on economic growth in OIC countries. the impact of the workforce outside the country of origin can help the country to control economic stabilization, such as reducing unemployment, increasing productivity, building infrastructure, improving access to various services, and much more.
3. Trade Openness has a significant positive effect on economic growth in OIC countries. The results of this proven research explain that trade insecurity can have a positive impact on growth, such as increasing the country's foreign exchange, increasing employment, expanding production, price stability, and many others.
4. Governance index (INS) can moderate foreign direct investment (FDI) in its influence on economic growth. Although the result is negative, governance index (INS) can reduce the coefficient value on the direct influence (before entering the INS variable) between FDI and economic growth. This evidence illustrates that governance index (INS) still needs to evaluate so that the negative value can be positive and contribute more to the economic growth of OIC countries. With these achievements, it will be in line with the research of Behera, Mishra, Priyadarshini, & Satpathy (2020) which shows that there is a positive interaction between the variables of governance index (INS) to economic growth.
5. Governance index can moderate remittance variables in their effect on economic growth, to increase state revenues and financial sector, as well as reduce unemployment.
6. Governance index (INS) can moderate the variables of trade openness to economic growth so that good and quality governance index can help channel dividends from trade openness to increase the economic growth of a country.

### SUGGESTION

Some suggestions that can be improved for further research include the need for additional data periods, other economic growth indicators, and the use of better data processing software, such as Stata, so that simultaneous results can be seen clearly.

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