

GRAVITY MODEL ANALYSIS OF INDONESIA'S TRADE ROLE WITHIN OIC ECONOMIES

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ABSTRACT – Indonesia, possessing the largest economic volume among Muslim-majority countries, plays a pivotal role in the global economy, particularly through its export activities. This study examines the factors influencing Indonesia's export performance and its economic interactions with the five largest economies within the Organization of Islamic Cooperation (OIC) member countries: Saudi Arabia, Turkiye, Iran, Nigeria, and the United Arab Emirates. Utilizing a random effect panel data model, the analysis spans from 1989 to 2021. The findings reveal that variables such as GDP, Distance, Economic Similarity Index, and Exchange Rate of these OIC countries positively impact Indonesia's exports. Additionally, Indonesia's exports significantly contribute to the GDP growth of these OIC nations. The study underscores the importance of Indonesia's trade in enhancing the economic capacities of OIC partner countries, thereby boosting national economic output and foreign exchange reserves. The results advocate for the revitalization of trade agreements and the maintenance of conducive relations among OIC countries to fortify their collective economic strength.

Keywords: Gravity Model, Export, Import, Panel Data, Organization of Islamic Cooperation (OIC)

ABSTRAK – Analisis Model Gravitasi Peran Perdagangan Indonesia di Negara-negara OKI. Sebagai salah satu negara dengan volume ekonomi terbesar diantara negara-negara Organisasi Kerjasama Islam (OKI), Indonesia memainkan peran penting dalam perekonomian global, terutama melalui kegiatan ekspornya. Kajian ini menganalisis faktor-faktor yang mempengaruhi kinerja ekspor dan interaksi ekonomi Indonesia dengan lima negara OKI dengan ekonomi terbesar, yaitu Arab Saudi, Turki, Iran, Nigeria, dan Uni Emirat Arab, periode dari tahun 1989 hingga 2021. Menggunakan model data panel random effect, temuan penelitian menunjukkan bahwa variabel seperti PDB, Jarak, Indeks Persamaan Ekonomi, dan Kurs dari negara-negara OKI tersebut berdampak positif pada ekspor Indonesia. Selain itu, ekspor Indonesia secara signifikan berkontribusi terhadap pertumbuhan PDB negara-negara OKI tersebut. Penelitian ini menekankan pentingnya perdagangan Indonesia dalam meningkatkan kapasitas ekonomi negara-negara mitra OKI, sehingga meningkatkan output ekonomi nasional dan cadangan devisa. Hasil ini mendorong revitalisasi perjanjian perdagangan dan pemeliharaan hubungan yang kondusif di antara negara-negara OKI untuk memperkuat kekuatan ekonomi kolektif mereka.

Kata Kunci: Model Gravitasi, Ekspor, Impor, Data Panel, Organisasi Kerjasama Islam (OKI)

INTRODUCTION

As the largest economy among the 57 member countries of the Organization of Islamic Cooperation (OIC), Indonesia's economic footprint surpasses notable economies such as Iran, Saudi Arabia, Turkey, Nigeria, and the United Arab Emirates, based on total Gross Domestic Product (GDP) (goodstats.id, 2022). Indonesia has held an active membership within the OIC since its inception in 1969, demonstrating a commitment to promoting economic cooperation and trade agreements among Islamic countries (Tamimah et al., 2019). In alignment with its New Economic Model (NEM), Indonesia has strategically expanded its export market to Middle Eastern countries in recent years, aiming to reduce dependency on traditional markets and explore new opportunities (Prihadyatama, 2022). This strategic approach to international trade not only fosters Indonesia's economic growth but also supports the economic diversification and development of fellow OIC member countries.

Indonesia's diverse economic resources, encompassing agriculture, manufacturing, mining, and services, position it as a key player in facilitating access to a wide array of products and services needed by OIC members, thereby contributing to the diversification of their economies. The implementation of the Trade Preferential System of the OIC (TPS-OIC) in 2012 marked a significant step towards enhancing economic cooperation among member states (Hidayat, 2016). However, the dynamics of Indonesia's trade within the OIC are subject to global trade dynamics, national and international economic policies, and other factors that influence economic relations between Indonesia and its OIC counterparts. The success of this economic cooperation relies on a shared commitment to advancing the economies of OIC countries through trade and other macroeconomic variables.

The gravity model of international trade offers a robust framework for explaining trade patterns between countries. This model suggests that bilateral trade flows are directly proportional to the economic size of the trading partners and inversely proportional to the geographical distance between them (Chaney, 2018). The gravity model's theoretical foundation and its ability to explain trade relations between countries have established it as an efficient analytical tool in the realm of international economic relations (Olanike-Kareem & Kareem, 2014; Kamri et al., 2014). While previous studies have applied the gravity model to various regional contexts, including ASEAN (Maulana et al., 2023; Prihadyatama, 2022; Utomo, 2022; Ambarita & Sirait, 2020; Sarwoko et



al., 2020; Sabaruddin, 2017; Karno, 2017; Bary, 2010; Yudanto, 2009), there remains a gap in understanding Indonesia's trade interactions specifically with OIC countries.

Key macroeconomic variables such as GDP, distance, economic similarity, and exchange rates significantly influence export performance. The economic growth of partner countries, for example, enhances their capacity to import (Singh, 2010), while geographical distance affects transportation costs (Krugman, 1991). Furthermore, economic similarity (Helpman & Krugman, 1985; Yeshineh, 2016) and exchange rate fluctuations (Handoyo et al., 2023; Karno, 2017) play crucial roles in determining trade volumes. Despite the potential market for Indonesian exports within the OIC, research on the specific factors affecting Indonesia's export performance to these countries and the subsequent impact on their aggregate economic growth remains limited. Addressing this gap is crucial, as many OIC countries continue to face fundamental economic challenges (Hidayat, 2016).

This study aims to address this research gap by applying the gravity model to analyze Indonesia's trade contributions to the economies of the five largest OIC countries, incorporating additional factors such as exchange rates and economic similarity indices. The findings will offer valuable insights for policymakers in Indonesia and other OIC countries, enabling them to design more effective and sustainable foreign trade policies. Ultimately, this study seeks to enhance economic cooperation and integration within the OIC, fostering stronger economic ties and mutual growth.

LITERATURE REVIEW

The gravity model of international trade, drawing an analogy from the laws of physical gravity, serves as a prominent framework for explaining trade patterns between countries. This model, pioneered by Tinbergen (1962), Poyhonen (1963), and Linnemann (1966), posits that countries with larger economic sizes and closer geographical proximity tend to engage in more substantial trade activities.

Key Determinants of International Trade

The gravity model of international trade posits that several key determinants influence trade patterns between countries. Firstly, economic size plays a significant role, as countries with larger economies tend to have greater trade



opportunities due to their capacity to produce a diverse range of goods and services in substantial quantities (Tinbergen, 1962). Secondly, geographical distance is a key determinant, as countries in closer proximity experience lower transportation costs, fostering more efficient and frequent trade interactions (Linnemann, 1966).

Thirdly, population size is a vital factor, as larger populations correspond to larger domestic markets, stimulating both export and import growth. Fourthly, cultural and linguistic similarities can enhance trade by easing communication and minimizing non-tariff barriers (Poyhonen, 1963). Fifthly, a robust transportation and logistics infrastructure contributes to more active trade by streamlining the movement of goods and services. Lastly, trade agreements, such as free trade agreements or preferential trade agreements, significantly influence international trade patterns by reducing trade barriers, fostering a more open and competitive international trade environment.

Macroeconomic Variables and Export Performance

Macroeconomic variables of partner countries significantly influence Indonesia's export performance. Gross Domestic Product (GDP), a measure of a country's production capacity, plays a critical role. The importing country's GDP reflects its absorption capacity, while the exporting country's GDP indicates its production capacity (Kalbasi, 2001). Consequently, an increase in GDP is expected to stimulate both exports and imports (Singh, 2010; Ibrahim, 2018).

Distance, serving as a proxy for transportation costs, negatively affects trade. Greater distances between trading partners lead to higher transportation costs, potentially prompting governments to implement policies that reduce imports and exports (Krugman, 1991). The economic similarity index, reflecting the similarity in economic size between countries, also influences trade patterns. Countries with similar economic structures tend to engage in more extensive trade (Helpman & Krugman, 1985). However, economic similarity can hinder trade if a country remains reliant on low-value agricultural products or outdated technology (Yeshineh, 2016).

Fluctuations in real exchange rates impact importers and exporters by affecting the balance sheet, reflecting changes in domestic commodity prices, and ultimately influencing the level of output available for export (Handoyo et al., 2023). A rise in the exchange rate against the US dollar in the export



destination country can increase the price of imported raw materials, leading to higher prices for finished goods and potentially affecting demand. Conversely, a weaker Indonesian Rupiah against the US dollar can make Indonesian exports more price-competitive in the destination country, potentially boosting exports (Karno, 2017).

Empirical Evidence on the Gravity Model and Indonesian Trade

Numerous studies have employed the gravity model to analyze Indonesia's international trade patterns. Leksono and Maryatmo (2020) found that GDP per capita and population positively affect Indonesia's exports, while geographical distance negatively affects exports to Indonesia's top 20 export destinations. Bustaman et al. (2022) highlighted the contribution of institutional quality and tariff reductions from Indonesia's trade agreements to increased exports.

Studies focusing on specific commodities have yielded valuable insights. Sitorus and Ramadhan (2022) found that GDP, distance, inflation, and real exchange rates significantly affect Indonesian coal exports. Malau et al. (2022) demonstrated the positive influence of importer population, economic distance, and the Revealed Comparative Advantage (RCA) index on Indonesia's plywood exports.

Within the ASEAN region, Mulyadi and Saenong (2017) revealed the significant impact of GDP, economic size, exchange rates, population, and economic distance on Indonesia's exports to ASEAN countries. Ambarita and Sirait (2020) found that while the GDP of ASEAN member countries and the ratio of industry to GDP positively influence Indonesia's export performance to ASEAN, the economic similarity index exerts a negative influence, and distance has no significant effect. Purba and Buulolo (2020) observed a more pronounced role of Indonesian exports to ASEAN after the implementation of post-ASEAN Economic Community (AEC) policies. Wikantioso (2021) found that economic openness to trade, democracy, and institutional quality positively impact Indonesia's exports to ASEAN.

Regarding Indonesia's trade relations with OIC countries, Sabaruddin (2017) found that Yemen's GDP, political and security uncertainty in Indonesia, and the presence of Indonesian representatives in Yemen significantly affect bilateral trade between the two countries. Al Mustofa et al. (2020) found that oil prices are the only macroeconomic variable significantly influencing trade between Indonesia and other OIC countries. Prihadyatama (2022) identified



economic size, economic openness, inflation rate, exchange rate, distance, and institutions as key drivers of Indonesian exports to OIC countries.

Despite the existing literature on the gravity model and Indonesian trade, a gap remains in understanding the specific factors influencing Indonesia's export performance to OIC countries and the subsequent impact of these exports on the aggregate economic growth of those countries. While some studies have explored Indonesia-OIC trade, they have not fully investigated the role of the economic similarity index, a variable found to be significant in Indonesia's trade with ASEAN. This study aims to address this gap by analyzing the factors affecting Indonesia's export performance to the top five OIC economies and examining the impact of these exports on the economic growth of those countries.

METHODOLOGY

Gravitational models of international trade commonly employ trade variables as endogenous variables, while economic volume variables and distances between countries serve as exogenous variables (Tinbergen, 1962). The gravity model posits that the economic measures (GDP) of country i and country j positively influence trade flows, while distance negatively affects trade. The general form of the gravity model can be expressed as:

$$F_{ij} = A \frac{Y_i Y_j}{D_{ij}} \quad (1)$$

Where:

- F_{ij} represents the trade volume from country i to country j , measured in value or volume.
- $Y_i Y_j$ represent the respective economic measures of country i and country j , typically represented by GDP.
- D_{ij} represents the geographical distance between country i and country j .
- A denotes a constant value.

This study utilizes the gravity model of international trade by applying panel data analysis methods with the Ordinary Least Squares (OLS) approach, as described by Gujarati (2006). Model selection relies on the Breusch-Pagan Lagrange Multiplier (BP-LM) test to determine the most appropriate model between general effect models and random effects models. A BP-LM p-value



less than 0.05 indicates the superiority of the random effect model over the general effect model, and vice versa. The fixed-effect panel data model is excluded from this study due to the potential for "nick bias" arising from the inclusion of time-invariant geographic distance variables, which could lead to singularity conditions in the independent variable matrix (Gujarati & Porter, 2008).

While not always a primary concern, the potential for endogeneity issues in gravity models of international trade is acknowledged. Endogeneity occurs when the variable under study is influenced by other variables within the model, potentially due to unclear causal relationships, multicollinearity, or measurement errors. To mitigate potential endogeneity, this study employs several strategies, including the use of instrumental variables, panel data analysis models, the inclusion of relevant control variables, and sensitivity tests on model specifications. The variables employed in this study align with the gravity model of international trade and incorporate additional variables relevant to the research question and previous literature. The equation for analyzing the factors influencing Indonesia's trade contribution to the economies of five OIC countries (Iran, Saudi Arabia, Turkey, Nigeria, and the UAE) is:

$$\text{TradeX}_{ijt} = \alpha_0 + \beta_1 \text{GDP}_{it} + \beta_2 \text{Dist}_{ijt} + \beta_3 \text{SimIndex}_{ijt} + \beta_4 \text{ExRate}_{it} + e_{it} \quad (2)$$

The equation for analyzing the role of Indonesia's exports in the economies of these five OIC countries is:

$$\text{GDP}_{it} = \alpha_0 + \beta_1 \text{TradeX}_{ijt} + \beta_2 \text{Dist}_{ijt} + \beta_3 \text{SimIndex}_{ijt} + \beta_4 \text{ExRate}_{it} + e_{it} \quad (3)$$

Where:

- GDP_{it} represents the economic size of the respective countries.
- TradeX_{ijt} represents the volume of Indonesia's exports to the five OIC partner countries.
- Dist_{ijt} represents the distance between Indonesia and the five OIC partner countries.
- SimIndex_{ijt} represents the economic similarity index between Indonesia and the five OIC partner countries.
- ExRate_{it} represents the exchange rate of the five OIC partner countries against the US dollar.
- α_0 represents the constant term.



- $\beta_1 - \beta_4$ represent the coefficients.
- e represents the standard error.
- i and j denote the cross-sections between countries.
- t represents the time series.

This study utilizes secondary panel data spanning from 1989 to 2021, sourced from various databases:

- Indonesia's export volume to the five OIC partner countries: [UN Comtrade](#)
- Distance between Indonesia and the five OIC partner countries: [Distance Calculator](#)
- Export data and exchange rates: [World Bank DataBank](#)

The economic similarity index between Indonesia and the five OIC partner countries is calculated using the following formula:

$$\text{Similarity Index} = 1 - \left(\frac{GDP_{it}}{GDP_{it} + GDP_{jt}} \right)^2 - \left(\frac{GDP_{jt}}{GDP_{it} + GDP_{jt}} \right)^2 \quad (4)$$

Where:

- GDP_{it} represents the economic volume of Indonesia.
- GDP_{jt} represents the economic volume of the OIC partner countries.

Data analysis is conducted using Eviews software version 10, chosen for its user-friendly interface, high precision calculations, capacity for large samples, comprehensive features for forecasting models (particularly time series and panel data models), and robust estimation options for various regression models (Hidayat & Sadewa, 2020).

RESULTS AND DISCUSSION

Trade Dynamics and Indonesia's Role within the OIC

Existing literature on the dynamics of economic cooperation between Indonesia and OIC members suggests that liberalization of the OIC economy has the potential to have various sectoral impacts on Indonesia, particularly on macroeconomic variables such as economic growth, inflation, industrial output, and trade (Hidayat, 2016). According to the Halal Economy Annual Report 2022, OIC member countries experienced a trade deficit of USD 63 billion for halal products in 2021. Only three OIC countries, including Indonesia, Turkey,



and Malaysia, were among the top 20 exporters of halal products (Oktaviani, 2022). In 2021, Indonesia's economy was the largest among OIC member countries, surpassing Saudi Arabia and Turkey (Aditya, 2021).

Indonesia is active in economic and development cooperation within the OIC, which is coordinated by the Standing Committee. Indonesia has also been pursuing economic diplomacy in the health sector within the OIC, recognizing the potential for economic benefits (Gibbons, 2018). Overall, while economic cooperation among OIC members has been relatively low, there have been efforts to increase collaboration in recent years. Indonesia has been active in promoting economic and development cooperation within the OIC, recognizing the potential for economic benefits. In general, Indonesia's export contribution to the five OIC partner countries, namely Iran, Saudi Arabia, Turkey, Nigeria, and the UAE, as illustrated in Figure 1, shows a continuously increasing volume. Saudi Arabia and the UAE are the largest countries importing goods from Indonesia.

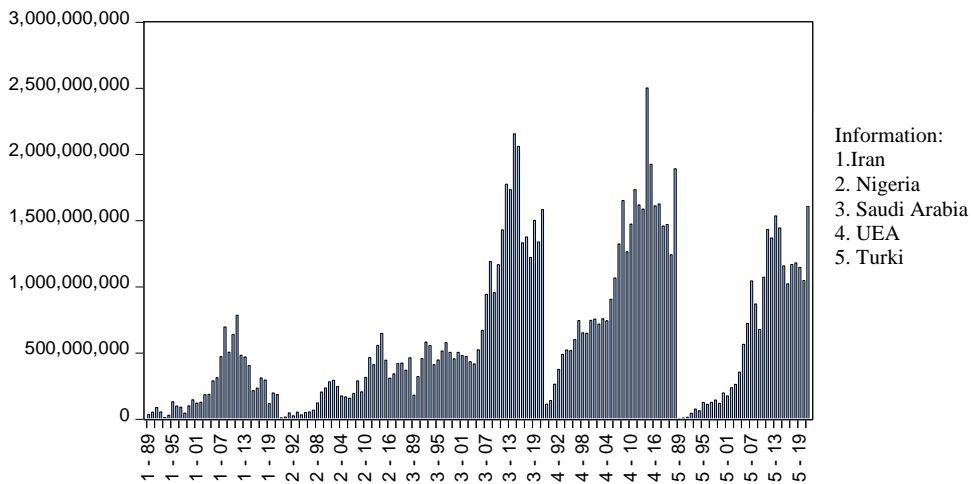


Figure 1. Indonesia's Export Volume to 5 OIC Member Countries in 1989-2021 (USD)
 (Source: databank.worldbank.org)

Analysis of Export Performance

In general, exports have a significant impact on the Indonesian economy. Exports are the main source of foreign exchange income for the Indonesian government. This foreign exchange is used to pay for imports, foreign debt, and support fiscal policy. In addition, exports contribute to Indonesia's economic growth by increasing production and employment in export sectors, such as manufacturing, agriculture, and mining industries. Furthermore, exports help in



diversifying the Indonesian economy by reducing dependence on the domestic market. This helps reduce economic risks stemming from fluctuations in the domestic economy and increases competition in the international market, encouraging Indonesian companies to increase innovation, quality, and productivity of their products to be more competitive in the global market.

The results of panel data analysis in this study are based on Equations 2 and 3, and the best panel data model is the Random Effect Model based on the results of the BP-LM test, as described in Table 1.

Table 1. Breush-Pagan Lagrange Multiplier (BP-LM) Test

	BP-LM Test Eq 2	BP-LM Test Eq 3
Honda	20.379	16.084
P-Value	0.000	0.000

(Source: Data Analyzed)

The Breusch-Pagan Lagrange Multiplier (BP-LM) test results in Table 1 indicate a statistically significant preference for the Random Effects Model (p-value < 0.05 for both equations). Therefore, the best result selected is a random effect model. This model serves as the basis for further discussion.

Table 2 presents the estimated coefficients of the Random Effects Model for Equations 1 and 2. Equation 2 focuses on factors influencing Indonesia's export performance to the five chosen OIC economies (Iran, Saudi Arabia, Turkey, Nigeria, and UAE). The results reveal a positive and statistically significant influence (at the 1% level) of various factors—such as GDP volume, distance between countries, economic similarity index, and exchange rate against USD—on export performance.

These findings align with previous studies conducted within the OIC context, such as the findings of Sabaruddin (2017) for the significant influence of the independent variable GDP, and the findings of Prihadyatama (2022) for independent variables of GDP, distance, and exchange rates. This condition is also similar to the findings in case studies in the ASEAN region, which stated that GDP, distance, and exchange rates play a positive role in Indonesia's export performance to these regional countries (Mulyadi & Saenong, 2017).

However, different results for the independent variable economic similarity index do not show its role in Indonesia's exports to ASEAN countries



(Ambarita & Sirait, 2020). A broader study also confirms that Indonesia's export performance to partner countries is influenced by the GDP of these partner countries (Leksono & Maryatmo, 2020) and several other independent variables, such as distance and exchange rates (Sitorus & Ramadhan, 2022).

Table 2. Estimation Results of Random Effects Panel Data Model

Variable	Equation (1) Dependent Variable: Ln(TradeX)	Equation (2) Dependent Variable: Ln(GDP)
	Coefficient (Std. Error)	Coefficient (Std. Error)
Ln (TradeX)	-	0.4925*
	-	(0.0264)
Ln (GDP)	0.9951*	-
	(0.0439)	-
Ln (Distance)	8.0386*	-1.9416***
	(1.1046)	(0.9855)
Similiarity Index	0.4284*	-0.0729
	(0.0558)	(0.0501)
Ln (Exchange Rate)	0.0825*	0.0157
	(0.0213)	(0.0185)
Constant	-79.7320*	34.8084*
	(9.8757)	(8.7599)
Adjusted R- squared	0.5642	0.5304
F-statistic	54.0736*	47.3083*

Significance= * α =0,01; ** α =0,05; *** α =0,10

(Source: Data Analyzed)

Impact of Exports on the Indonesian Economy

The estimation results in Table 2 indicate that Indonesia's exports are highly dependent on global economic conditions and the economies of its trading partner countries, especially in this study, the 5 OIC countries. As partner countries' economies grow, demand for Indonesian export products also increases. Conversely, when partner economies experience a slowdown, demand for Indonesian export products tends to decline. This could have an impact on the volume and value of Indonesia's exports. However, the distance variable shows significant results that do not match the hypothesis of the gravitational theory of international trade, where the relationship between a country's export performance and partner countries should be negatively



related, but in this study, it shows positive results (Mulyadi & Saenong, 2017; Prihadyatama, 2022; Sitorus & Ramadhan, 2022).

This indicates that the performance of Indonesia's exports to the 5 OIC countries does not depend on distance factors, but the more important factor is the existence of international trade agreements. International trade agreements, such as free trade agreements or preferential agreements, can reduce the impact of geographic distance on trade. Such agreements could provide tariff preferences or trade rules that are more favorable for Indonesian exports to partner countries. In addition, the economic similarity index of trading partner countries can have a significant influence on Indonesia's export performance. This index of economic similarity refers to the extent to which the economic structures of two countries are suitable or similar. If Indonesia's economic structure is similar to that of major trading partner countries, then Indonesia's exports may be highly dependent on these countries. Economic changes in partner countries can have a major impact on Indonesia's export demand. If the partner economy grows, then demand for Indonesian products may increase, but if the partner economy experiences a slowdown, Indonesian exports could be negatively affected.

Furthermore, the condition of the exchange rate of partner countries against the USD can also affect Indonesia's exports. The appreciation of partner currencies against the Indonesian rupiah can make Indonesian products more expensive for partner countries, which can reduce the competitiveness of Indonesian export products. Conversely, depreciation of partner currencies can increase the competitiveness of Indonesian products. The results of the analysis in Equation 3 explain the role of Indonesia's export performance in the economies of 5 OIC countries, namely Iran, Saudi Arabia, Turkey, Nigeria, and the UAE.

The results in Table 1 show that exports carried out by Indonesia have a significant influence on the economies of 5 OIC countries, with a positive influence, which means that the higher the volume of Indonesian exports, the more it will affect the increase in economic performance of the 5 OIC countries. This can be seen from the side of Indonesia's exports for various consumer products such as clothing, food, and daily products. OIC countries may import these goods, and this can support industrial growth in Indonesia and provide access to consumer products to OIC countries.



In terms of natural resources, Indonesia is a major producer of natural resource commodities such as palm oil, coal, oil and gas, and more. OIC countries that do not have the same natural resources could be major recipients of these exports. This can affect their economies by providing critical resources for energy and industry. In addition to natural products, Indonesia also produces various manufacturing products, such as automotive, electronics, and textiles. More industrially advanced OIC countries might purchase these products to support their economic activities. Bilateral relations from the economic side between Indonesia and the 5 OIC countries can be influenced by bilateral trade agreements, preferential agreements, or political relations. This can affect the extent to which Indonesia's exports affect the economies of the 5 OIC countries.

Policy Implications

The significant role of Indonesia's exports to the OIC economy can also influence policy decisions related to trade agreements, targeted export promotion strategies, and economic cooperation initiatives within the OIC. By increasing exports of goods and services, Indonesia can help boost economic growth in OIC countries through increased income, job creation, and increased investment. Through exports, Indonesia can strengthen bilateral trade cooperation with other OIC countries. By increasing trade volume and diversifying exported products, Indonesia can strengthen economic ties with OIC member countries, which in turn can influence bilateral trade policies between these countries.

In addition, Indonesia can adopt targeted export promotion strategies based on the competitive advantages of specific industries. For example, if Indonesia has a competitive advantage in a particular agricultural or manufacturing industry, an export promotion strategy could be focused on increasing exports of products from that industry to OIC member countries in need. However, to increase exports to OIC countries, Indonesia needs to continue to strengthen its infrastructure and logistics system. Investment in transportation infrastructure, ports, and logistics systems will help improve trade efficiency and reduce trade barriers between Indonesia and other OIC countries.

Thus, Indonesia can take advantage of its membership in the OIC to garner cooperation in economic development in the region. This could include cooperation initiatives in the areas of investment, infrastructure development,



technology transfer, and human capacity building, which could benefit all OIC member states.

CONCLUSION

This study examines the factors influencing Indonesia's export performance and its role in the economies of the five largest OIC member countries (Saudi Arabia, Turkey, Iran, Nigeria, and the UAE) from 1989 to 2021. The study reveals a positive correlation between Indonesia's exports and the GDP growth of these five OIC economies. Specifically, GDP, distance, economic similarity, and exchange rates positively influence Indonesia's exports to these nations.

This suggests that Indonesia plays a significant role in stimulating economic activity within this subset of the OIC. The findings highlight the importance of Indonesia's trade relationships within the OIC. Strengthening these ties through revitalized trade agreements, supportive economic policies, and robust diplomatic relations can contribute to the economic growth of both Indonesia and its OIC partners.

This study focuses solely on the top five OIC economies and does not consider specific sectors or nuanced factors that might influence trade dynamics. Notably, the analysis excludes the burgeoning halal sector, where Indonesia holds a prominent position as a supplier to OIC countries. Future research should adopt a broader scope by encompassing a wider range of OIC member countries and delving into specific sectors, particularly the halal industry. Additionally, incorporating factors like trade policies, cultural influences, infrastructure development, political relations, logistics networks, investment flows, technology transfer, and human capital development would provide a more comprehensive understanding of the complexities shaping Indonesia's trade within the OIC.

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