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Macroeconomic and Demographic Drivers of Halal Product Exports in ASEAN Countries: A Panel Data Analysis of the Emerging Halal Trade Landscape

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ABSTRACT
Purpose: *This study aims to analyze the influence of macroeconomic indicators, foreign investment, and demographic factors on the export of halal products among ASEAN countries, namely Indonesia, Malaysia, Brunei Darussalam, Thailand, Singapore, the Philippines, Vietnam, Laos, Cambodia, and Myanmar during the period 2014–2023.*
Design/Methodology/Approach: *This research employs a quantitative approach using panel data regression analysis. Model selection was conducted through the Chow test, Hausman test, and Lagrange Multiplier test, with the results indicating that the most appropriate model is the Fixed Effect Model (FEM).*
Findings: *The study reveals that the Real Effective Exchange Rate (REER) and population growth exert a significant positive impact on ASEAN halal product exports. Conversely, Foreign Direct Investment (FDI) demonstrates a significant negative effect, while Gross Domestic Product (GDP) does not show a statistically significant partial influence. Collectively, all independent variables have a significant joint effect on halal product exports.*
Practical Implications: *This study is expected to offer valuable implications for governments and policymakers across ASEAN in formulating strategies that support the region's halal export development.*
Originality/Value: *This research contributes to Halal Product Industry by highlighting macroeconomic indicators and demographic factors on the export of halal products among ASEAN countries.*

Keyword: *Halal Product Exports; GDP; REER; FDI; ASEAN*

A. INTRODUCTION

Economic growth is a crucial indicator for assessing the success of a country's development. It refers to the continuous transformation of a nation's condition toward a better state over a specific period (Meilaniwati & Tannia, 2021). Stable growth is generally measured through the increase in the production of goods and services, which serves as a representation of the standard of living. From an Islamic perspective, economic growth is defined as the sustainable development of production factors in a proper manner, thereby making a tangible contribution to human welfare (Muharromy & Auwalin, 2021).

In 2023, the global economy experienced a slowdown in growth, reflecting challenges in sustaining economic performance in the post-COVID-19 era (Sa'adah,

Marfu'ah, Azhari, Safitri, & Sinta, 2023). The International Monetary Fund (IMF) reported that global economic growth declined from 3.2% in 2022 to 2.7% in 2023. This deceleration also affected the ASEAN region, which recorded a growth rate of only 4.0% in 2023, compared to 5.6% in the previous year. Nevertheless, ASEAN's GDP reached USD 3.8 trillion, positioning it as the world's fifth-largest economy with a 3.6% contribution to global GDP (Secretary of ASEAN, 2024). This condition reflects the resilience of the ASEAN economy and indicates a relatively stable long-term expansion trend.

Amid the global economic slowdown, the halal industry has emerged as a strategic sector contributing to economic growth. The Royal Islamic Strategic Studies Centre (RISSC) Report (2023) estimated that the global Muslim population has surpassed 2 billion people (RISSC, 2024). This demographic serves as the primary driver of increasing demand for halal products, both in Muslim-majority and non-Muslim countries. Beyond demographic factors, public awareness of the importance of consuming halal products has also continued to grow. Accordingly, halal product exports are considered to play a strategic role in supporting economic growth (Hendra & Fauziah, 2023). The potential of the halal consumer market can be explained as follows:

Table 1. Global Halal Product Consumer Opportunities

Sector Type	Consumer Opportunities	
	2022 Report (USD, Billion)	2027 Projection (USD, Billion)
Halal Food	1.400	1.890
Islamic Finance	3.960	5.940
Halal Tourism	133	174
Modest Fashion	318	428
Halal Pharmaceuticals	108	142
Halal Cosmetics	84	129
Media & Recreation	247	344

Source: State of the Global Islamic Economy Report (SGIER) 2023/2024

Based on Table 1, the State of the Global Islamic Economy Report (SGIER) 2023/2024 estimates that the halal food market will grow from USD 1.4 trillion in 2022 to USD 1.89 trillion in 2027. Other sectors such as Islamic finance, fashion, pharmaceuticals, cosmetics, and halal tourism also demonstrate positive growth trends. This underscores the significant potential of the halal industry as a driving force for ASEAN's export performance.

Despite these opportunities, ASEAN's contribution to halal product exports remains suboptimal. Data from SGIER 2023/2024 indicate that only Indonesia ranked among the top ten exporters of halal products to OIC countries in 2022, with an export value of USD 13.38 billion (SGIER, 2024). Meanwhile, major countries such as China, India, and Brazil continue to dominate global halal trade. This situation suggests that although ASEAN has considerable potential, it has not yet been able to match competing countries with more established production capacities.

Within the dynamics of international trade, research findings highlight that the halal industry makes a significant contribution to Indonesia's exports, thereby emphasizing the importance of optimizing the halal sector as a strategy to strengthen

economic competitiveness both at the national and ASEAN regional levels (Sechan, Ihsan, & Ningsih, 2023). Furthermore, research conducted by Cupian, Smitasari, & Noven (2024) demonstrates that halal food exports, foreign direct investment, trade openness, exchange rates, and population collectively exert a significant influence on the real Gross Domestic Product (GDP) of ASEAN countries. This implies that economic growth in the ASEAN region is not solely determined by domestic factors but is also shaped by global economic integration and the dynamics of international trade, particularly within the halal industry.

Accordingly, this study seeks to contribute to the identification of the key determinants influencing ASEAN's halal product exports during the period 2014-2023. These findings are expected to provide empirical insights that may be useful for policymakers, industry stakeholders, and academics in formulating strategies to strengthen halal exports and enhance ASEAN's role as a global hub of the halal industry.

Explain how you addressed the problem and clearly state the aims of your study. It is mandatory to have primary references that are indexed by Scopus or/and Web of Science. At least 50% of references need to be explained briefly and highlight the research gap. It is recommended if the author (s) have several layers of research gap, which can help the authenticity of the paper. Author (s) also need to compose the introduction, think of readers who are not experts in this field. Please describe in narrative format and not using sub-chapter. (Times New Roman, 12, 1.15 Spacing, Justify)

B. THEORETICAL STUDY

1. Halal Product Exports

Halal product exports refer to the activity of delivering goods or services that meet halal standards to other countries. The demand for halal products is not only expanding in domestic markets but also growing at the global level (Baso, Sapa, Mutihiadin, & Sumarni, 2024). The export of halal food has a significant positive impact on real Gross Domestic Product (GDP) growth in ASEAN (Cupian, Smitasari, & Noven, 2024). Halal products are no longer merely a necessity for Muslims but have become a widely recognized quality standard, as they ensure cleanliness, safety, and ethical values in the production process (Gul, Junaid, Ikramullah, & Raza, 2022). Moreover, international regulations governing halal standards, such as the ASEAN Mutual Recognition Agreement on Halal, facilitate the export of halal products among ASEAN member states (Johan & Plana-Casado, 2023).

2. Macroeconomics

Macroeconomics is a branch of economics that examines the overall performance, structure, and behavior of an economy, focusing on factors that influence economic growth and stability (Lavenia & Hwihanus, 2024). Unlike microeconomics, which studies individual agents and specific markets, macroeconomics provides a framework for understanding broad economic phenomena, including national output, employment, inflation, and international trade dynamics. Within empirical research on trade, macroeconomic analysis is essential for investigating how aggregate economic conditions shape a country's capacity to participate in global markets, including the export of specialized products such as halal goods. Key macroeconomic indicators

often used in this analysis include Gross Domestic Product (GDP), which serves as a key measure of national progress (Wau, Sarah, Pritanti, Ramadhani, & Ikhsan, 2022), and the Real Effective Exchange Rate (REER), which reflects a country's external competitiveness (Adi, Fachrurrozi, & Aidar, 2022). Understanding the relationships among these variables enables a comprehensive assessment of how changes in economic growth and exchange rates may affect halal product exports.

3. **Gross Domestic Product (GDP)**

Gross Domestic Product (GDP) is a primary indicator for measuring a country's economic growth, reflecting the total value of goods and services produced within a specific period. The measurement of GDP plays a critical role in guiding government economic policies and serves as a reference for formulating strategies in international trade and overall economic activities (Cupian et al., 2024). GDP per capita, calculated by dividing total GDP by the population, provides additional insights into average income levels and the distribution of prosperity within a country (Sultan, Rahayu, & Purwiyanta, 2023). A higher GDP often indicates greater production capabilities, technological development, and resource availability, which may enhance a country's ability to export goods, including halal products. Empirical evidence from Indonesia, for example, demonstrates that GDP has a significant positive effect on halal product exports (Rosyida & Yuliani, 2024)

4. **Real Effective Exchange Rate (REER)**

The Real Effective Exchange Rate (REER) is defined as the relative value of a domestic currency against a basket of foreign currencies, adjusted for price differentials, and is commonly used to assess a country's external competitiveness (Muharromy & Auwalin, 2021). The equilibrium exchange rate is determined by the interaction of supply and demand across the currencies involved. Variations in REER influence the relative prices of goods across countries, thereby affecting export demand, including for halal products. Consequently, exchange rate stability is a critical factor in determining the dynamics of international trade and maintaining competitiveness in foreign markets (Wau et al., 2022).

5. **Foreign Investment**

Investment represents a key driver of economic growth through the accumulation of capital stock (Muharromy & Auwalin, 2021). One important form of investment is Foreign Direct Investment (FDI). According to the United Nations Conference on Trade and Development (UNCTAD), FDI refers to an investment made by a resident entity, typically a corporation, in one country into a business entity in another country, with the goal of obtaining long-term influence and managerial control (Cupian et al., 2024). The inflow of FDI can be directed toward human resource development, infrastructure expansion, and the stimulation of real economic growth (Marshall, Pamungkas, Zaki, Millatina, & Widiantika, 2024). However, the success of attracting FDI depends not only on capital availability but also on a country's preparedness in terms of technology, workforce skills, research support systems, and the overall level of knowledge (Albar & Ratnasari, 2022). Insights from Islamic financial systems further highlight how investment frameworks that emphasize

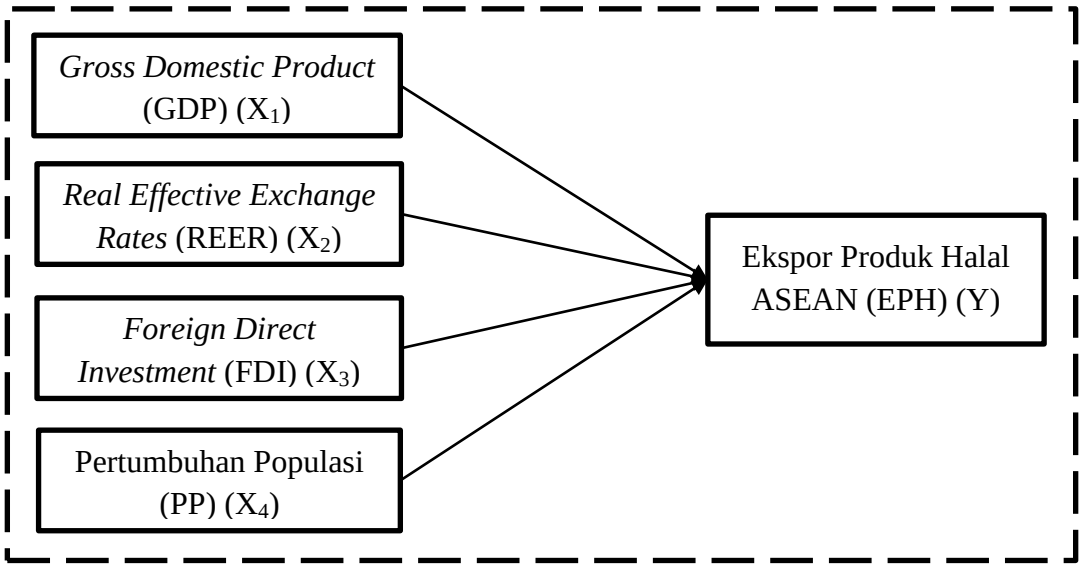
productive ventures and social benefits can strengthen real-sector growth and enhance economic resilience (Rizaldy & Ahmed, 2019).

6. Economic Demography

Economic demography examines the relationship between population dynamics and economic growth, particularly how changes in population size and structure influence a country's economy. Population growth, defined as the increase in the number of individuals over a given period, is shaped by factors such as fertility, mortality, and migration (Muharromy & Auwalin, 2021). In parallel, the expansion of the labor force provides a productive resource for the economy, enhancing production capacity and improving efficiency in economic processes. These demographic factors are therefore critical in shaping a country's economic performance and its ability to produce and export goods, including halal products (Wau et al., 2022).

Based on the background description and literature review, the following hypotheses can be formulated in this study:

H1 : GDP has an effect on ASEAN halal product exports during the 2014–2023 period.
H2 : REER has an effect on ASEAN halal product exports during the 2014–2023 period.
H3 : FDI has an effect on ASEAN halal product exports during the 2014–2023 period.
H4 : Population growth has an effect on ASEAN halal product exports during the 2014–2023 period.
H5 : GDP, REER, FDI, and population growth simultaneously affect ASEAN halal product exports during the 2014–2023 period.



Source: Processed Data

Figure.1 Research Hypothesis

C. METHODOLOGY

1. Sample Selection and Data Sources

The object of this study is the export of halal products in ASEAN countries during the period 2014-2023. This research covers ten ASEAN member states, namely Indonesia, Malaysia, Singapore, Thailand, the Philippines, Vietnam, Myanmar, Brunei

Darussalam, Laos, and Cambodia. The research employs a quantitative approach with a panel data regression analysis technique. The collected data were analyze using appropriate statistical methods with the assistance of EViews 13 software. The study relies on secondary data in the form of panel data, which combines time series and cross-sectional data derived from the World Bank and the ITC Trade Map, covering the ten ASEAN countries over the period 2014-2023. The sampling method applied in this research is purposive sampling, which falls under the category of non-probability sampling. The criteria used for determining the sample in this study are as follows:

a. Countries that are members of ASEAN.
b. Countries that possess complete economic and financial data for the specified research period.

2. Variable Measurement

The variables employed in this study consist of dependent and independent variables. The dependent variable is Halal Product Export (HPE), while the independent variables include Gross Domestic Product (GDP), Real Effective Exchange Rate (REER), Foreign Direct Investment (FDI), and Population Growth (PG). To ensure that each variable can be analyzed empirically, an operationalization process is required. This process transforms abstract concepts into measurable indicators, thereby enabling the researcher to more effectively understand, test, and analyze the interrelationships among variables in greater depth (Iba & Wardhana, 2024). The components of each of the aforementioned variables are described as follows:

Table 2. Operational Definitions and Measurement of Variables

Variable	Indicator	Source
ASEAN Halal Product Exports (EPH)	Annual export value (thousand USD) of halal commodities from each ASEAN country to the world, based on the HS (Harmonized System) classification considered halal without additional processes such as chemical mixtures.	ITC Trade Map
Gross Domestic Product (GDP)	GDP measured through the annual per capita GDP growth rate, expressed in percentage.	World Bank
Reel Effective Exchange Rates (REER)	REER calculated using the nominal effective exchange rate divided by the price deflator/cost index.	World Bank
Foreign Direct Investment (FDI)	FDI measured by net inflows (new investment minus disinvestment) into a country from foreign investors, expressed as a percentage of Gross Domestic Product (GDP).	World Bank
Population Growth (PP)	Population value presented as the total mid-year population.	World Bank

Source: Author, 2025

3. Regression Model

Panel data regression is an econometric analysis method that utilizes data combining both cross-sectional dimensions (units such as individuals, firms, or

countries) and time-series dimensions (time periods), thereby enabling the observation of multiple units across several periods simultaneously (Gujarati & Porter, 2009). The model employed in this study is based on the following specification:

$$\mathbf{EPH = \alpha + \beta_1 GDP + \beta_2 REER + \beta_3 FDI + \beta_4 PP}_{e}$$

Notes :

EPH : Halal Product Exports
α : Constant
GDP : Gross Domestic Product
REER : Reel Effective Exchange Rates
FDI : Foreign Direct Investment
PP : Population Growth
$_e$: Error term

D. RESULT

1. Descriptive Analysis

The descriptive analysis reveals that halal product exports (Y) in ASEAN exhibit a mean of 14.518, a median of 15.045, a maximum of 17.390, a minimum of 7.754, and a standard deviation of 2.31, indicating relatively high export performance but with significant disparities among countries. The GDP variable (X1) records a mean of 0.026, a median of 0.037, a maximum of 0.144, a minimum of -0.126, and a standard deviation of 0.041, reflecting relatively stable economic growth despite contractions during the pandemic. The REER variable (X2) shows a mean of 1.061, a median of 1.058, a maximum of 1.354, a minimum of 0.801, and a standard deviation of 0.141, suggesting a stable exchange rate that supports halal export performance. The FDI variable (X3) has a mean of 0.062, a median of 0.033, a maximum of 0.349, a minimum of -0.018, and a standard deviation of 0.075, highlighting the uneven distribution of foreign direct investment across the region. Meanwhile, population growth (X4) records a mean of 17.041, a median of 17.558, a maximum of 19.455, a minimum of 12.940, and a standard deviation of 1.79, indicating a positive and relatively consistent demographic trend within ASEAN.

Table 3. Descriptive Analysis

	Y (EPH)	X1 (GDP)	X2 (REER)	X3 (FDI)	X4 (PP)
Mean	14.51773	0.026262	1.061399	0.061541	17.04161
Median	15.04465	0.037098	1.058503	0.033378	17.55777
Maximum	17.38985	0.143620	1.353800	0.349485	19.45454
Minimum	7.753624	-0.126271	0.800541	-0.017529	12.94024
Sxtd. Dev.	2.309258	0.040901	0.141437	0.074544	1.789757

Source: Author's data processing (EViews 13)

2. Panel Data

The model specification test aims to determine the most appropriate model to be applied in this study by considering three main approaches: the Common Effect Model (CEM), the Fixed Effect Model (FEM), and the Random Effect Model (REM). The selection of the estimation model was conducted through three tests, namely the

Chow test, the Hausman test, and the Lagrange Multiplier test. The results of these tests are presented as follows:

Table 4. Regression Model

No.	Test	Probability Value	Criterion	Model
1.	Chow	0.000	0.000 < 0.05	FEM
2.	Hausman	0.000	0.000 < 0.05	FEM
3.	Lagrange Multiplier	0.000	0.000 < 0.05	REM

Source: Author's data processing (EViews 13)

Based on the results of these tests, the Fixed Effect Model (FEM) was identified as the most appropriate model to be applied. Therefore, the Fixed Effect Model (FEM) is employed in this study to estimate the effect of macroeconomic variables, foreign investment, and economic demography on ASEAN halal product exports.

3. Classical Assumption Test

The classical assumption test was conducted to ensure that the regression model employed in this study meets the statistical feasibility requirements. In panel data analysis, the classical assumption test is generally focused on two main aspects: the multicollinearity test and the heteroskedasticity test (Gujarati & Porter, 2009). The results of the classical assumption test are presented as follows:

Table 5. Classical Assumption Test

No.	Test	Result	Criterion	Remark
1.	Multicollinearity	X1 = 0.221 X2 = 0.243 X3 =-0.303 X4 = 0.250	CM < 0.8	Passed
2.	Heteroskedasticity	X1 = 0.970 X2 = 0.275 X3 = 0.144 X4 = 0.820	Prob>0.05	Passed

Source: Author's data processing (EViews 13)

Based on the results in Table 5, the panel regression model employed in this study satisfies the classical assumptions. This is evidenced by the absence of indications of multicollinearity and heteroskedasticity in the model.

4. Model Feasibility Test

The model feasibility test was conducted to validate the selected regression model. This test comprises two main aspects, namely hypothesis testing and the examination of the coefficient of determination (R^2).

5. Hypothesis Testing

a. **T-Test**

The t-test was employed to determine whether the independent variables in the regression model have a partially significant effect on the dependent variable.

This study applied a significance level of 10% in the statistical testing, with the results presented as follows:

Table 6. T-Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-110.0666	18.79358	-5.856608	0.0002
GDP (X1)	0.473631	0.668098	0.708926	0.4963
REER (X2)	0.549623	0.277754	1.978815	0.0792
FDI (X3)	-2.784183	0.797257	-3.492202	0.0068
PP (X4)	7.285691	1.107041	6.581228	0.0001

Source: Author's data processing (EViews 13)

Based on the results presented in Table 6, it can be concluded that X1 has no significant effect on Y. Meanwhile, X2 and X4 exhibit a significant positive effect on Y, whereas X3 demonstrates a significant negative effect on Y.

b. F-Test

The F-test aims to determine whether all independent variables in the regression equation collectively influence the dependent variable. The results of the F-test in this study are presented as follows:

Table 7. F-Test

F-statistic	371.8189
Prob(F-statistic)	0.000000

Source: Author's data processing (EViews 13)

Based on the results in Table 7, the Probability value of the F-Statistic (0.000) is lower than the significance level of 0.05, indicating that there is a statistically significant simultaneous effect among the variables.

6. The Coefficient of Determination Test

The coefficient of determination is a measure that indicates the extent to which the independent variable (X) contributes to the dependent variable (Y). The results of the coefficient of determination test are presented in the following table:

Table 8. The Coefficient of Determination Test

R-squared	0.982519
Adjusted R-squared	0.979877

Source: Author's data processing (EViews 13)

Based on the results in Table 8, the Adjusted R-Squared value is 0.980 or 97.99%, indicating that the variation in halal product exports across ten ASEAN countries during the study period can be explained by the independent variables included in the research model.

7. Model Interpretation

Based on a series of model selection tests, including the Chow test, Hausman test, and Lagrange Multiplier test, the most appropriate model was determined to be the Fixed Effect Model (FEM). By selecting FEM as the optimal model, the analysis can be conducted to examine the influence of GDP, REER, FDI, and population growth on ASEAN halal product exports. The FEM estimation results are presented as follows:

Table 9. FEM Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-110.0666	18.79358	-5.856608	0.0002
GDP (X1)	0.473631	0.668098	0.708926	0.4963
REER (X2)	0.549623	0.277754	1.978815	0.0792
FDI (X3)	-2.784183	0.797257	-3.492202	0.0068
PP (X4)	7.285691	1.107041	6.581228	0.0001

Source: Author's data processing (EViews 13)

Based on the test results presented in Table 9, the following conclusions can be formulated:

$$\mathbf{EPH = -110.067 + 0.474(X1) + 0.550(X2) - 2.784(X3) + 7.286(X4) + } e$$

The resulting regression model indicates that halal product exports are positively influenced by GDP, REER, and population growth, while FDI exerts a negative effect. The model also presents a negative constant, along with an error term that represents other variables outside the model.

E. DISCUSSION

1. The Influence of Gross Domestic Product (GDP) on ASEAN Halal Product Exports

The findings of this study indicate that although GDP serves as a primary indicator for measuring a country's economic growth, an increase in GDP does not automatically translate into improved export performance in the halal product sector. This result is consistent with the study conducted by Ramdan and Bustomi (2023), which asserts that economic growth is not always a direct determinant of export performance, as other factors such as halal industry capacity, export policies, and trade infrastructure also play critical roles.

Furthermore, this condition demonstrates that the contribution of the halal sector to the total economic output in several ASEAN countries remains relatively limited; hence, overall GDP fluctuations have not yet been able to significantly reflect changes in halal product exports. For instance, in Indonesia, GDP growth is primarily driven by high domestic consumption, particularly household consumption, which consistently accounts for more than half of the national GDP. Such a consumption-oriented economic structure suggests that economic growth is predominantly driven by domestic demand rather than exports. Consequently, GDP growth does not automatically translate into higher halal product exports, given that a substantial portion of economic output is still allocated to meet domestic consumption needs. Therefore, ASEAN governments need to place greater emphasis on structurally developing the halal sector so that it can serve as a more significant driver of export performance in the future.

2. The Influence of Real Effective Exchange Rates (REER) on ASEAN Halal Product Exports

The positive influence observed indicates that when the real effective exchange rate increases, halal product exports also tend to rise. This finding suggests that price competitiveness is not the sole factor driving halal product exports; rather, it may also reflect increasing international demand for ASEAN halal products with high added

value or specific quality attributes. In other words, although an increase in REER typically weakens price competitiveness, in the context of halal products, the effect may instead be positive due to the importance of value, consumer trust, and trade networks.

This study aligns with the perspective of Muharromy and Auwalin (2021), who argue that the Real Effective Exchange Rate (REER) reflects the relative value of domestic currencies against foreign currencies, determined through supply and demand mechanisms in international trade. Furthermore, Wau et al. (2022) emphasize that currency appreciation can stimulate export growth, particularly when the relevant sector possesses non-price competitive advantages and high product quality, as is evident in halal products that encompass spiritual dimensions and unique added value. Similarly, Rosyida and Yuliani (2024) found that in the short run, exchange rates exert a positive and significant influence on Indonesia's halal product exports.

3. The Effect of Foreign Direct Investment (FDI) on ASEAN Halal Product Exports

The negative coefficient indicates that an increase in FDI is accompanied by a decline in the value of halal product exports. This may be attributed to the fact that foreign investment allocation has not been optimally directed toward the halal industry. Most FDI inflows into ASEAN countries are likely concentrated in non-halal sectors such as conventional manufacturing, technology, and services. Consequently, the contribution of foreign investment to halal product exports has not been substantial.

This finding is consistent with the study conducted by Rosyida and Yuliani (2024), which demonstrates that FDI has a negative and significant effect on halal product exports. Their results suggest that FDI inflows are not necessarily directed toward sectors that support the halal industry, whether in terms of production or certification. Within the ASEAN context, this is particularly relevant since the majority of foreign investment in the region remains concentrated in general manufacturing, infrastructure, and technology sectors, which may not align with the development of the halal ecosystem. As a result, despite the increase in foreign investment, its contribution to the growth of halal product exports remains limited or even declining. This underscores the importance of selective policies in attracting FDI that genuinely supports the halal industry, through incentives, regulations, or strategic partnerships between investors and local halal industry players in ASEAN countries.

4. The Effect of Population Growth (PP) on ASEAN Halal Product Exports

The positive coefficient indicates that population growth contributes to the increase in halal product exports. Population growth expands the domestic consumer base, raises the demand for halal products, and drives domestic production. This, in turn, enhances the capacity of the halal industry for exports, as larger-scale production and broader market potential become possible. The findings of this study are consistent with those of Cupian et al. (2024), who found that population growth has a positive and significant effect on real Gross Domestic Product (GDP) in ASEAN countries. Their study revealed that an increasing population stimulates economic activity due to higher demand for goods and services. In the context of this research, these findings reinforce the evidence that population growth can also drive halal export activities by boosting demand and expanding production capacity.

5. The Effect of GDP, REER, FDI, and Population Growth (PP) on ASEAN Halal Product Exports

Overall, these results suggest that the combination of macroeconomic conditions (GDP and REER), foreign investment inflows (FDI), and demographic dynamics (population growth) collectively exerts an important influence on the performance of halal product exports in the ASEAN region. Thus, the growth of halal exports in this region cannot be separated from the complex interactions among these factors, which affect both supply and demand sides. This finding is in line with the study by Cupian et al. (2024), which states that halal food exports, FDI, exchange rates, and population significantly affect ASEAN's aggregate economic indicators. Therefore, strategies to strengthen halal exports need to adopt a holistic approach that simultaneously incorporates economic, investment, and demographic aspects.

F. CONCLUSION

Based on the findings of this study on the influence of Gross Domestic Product (GDP), Real Effective Exchange Rate (REER), Foreign Direct Investment (FDI), and Population Growth (PP) on halal product exports in ASEAN countries during 2014–2023, several key conclusions can be drawn. First, GDP does not exhibit a significant partial effect on halal product exports, indicating that fluctuations in a country's overall economic output do not directly drive the growth of halal exports. This suggests that other factors beyond GDP play a more decisive role in shaping export performance.

Second, REER exerts a significant positive effect, highlighting that a stable and competitive real effective exchange rate can enhance the international competitiveness of ASEAN halal products. Third, FDI shows a significant negative effect, implying that foreign investment inflows do not automatically contribute positively to halal product exports, possibly because such investments are often concentrated in sectors less directly related to the halal industry. Fourth, population growth has a significant positive impact, reflecting that an expanding population, particularly within the Muslim demographic, may bolster both domestic production capacity and demand for halal exports.

Collectively, the four variables, GDP, REER, FDI, and population growth, demonstrate a significant combined effect on ASEAN halal product exports. These findings underscore that the dynamics of halal exports are multifactorial, shaped by the interplay of macroeconomic conditions, investment patterns, and demographic trends.

Accordingly, policies aimed at enhancing ASEAN halal product exports should prioritize maintaining exchange rate stability, aligning foreign investment to support the halal sector, and leveraging population growth as a strategic market opportunity. This study only uses several macroeconomic and demographic variables. Meanwhile, for the next researchers the role of GDP warrants further investigation, particularly in relation to other variables that may mediate or moderate its influence on export performance.

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