

# The Influence of the Manufacturing Industry on Indonesia's Economic Growth for the 2013-2022 Period Viewed from an Islamic Economic Perspective

Nurul Kholipah<sup>1</sup>, Erlin Kurniati<sup>2</sup>, and Yulistia Devi<sup>3</sup>

<sup>1,2,3</sup> Universitas Islam Negeri Raden Intan Lampung, Indonesia

**Abstract.** Indonesia is a country that has the manufacturing sector as a driver of the economy. Data from Indonesia's Gross National Income (GNI) has increased from 2013-2022. GNI is related to the manufacturing industry which has a role in economic growth. This research aims to see how much influence the manufacturing industry has on Indonesia's economic growth for the 2013-2022 period from an Islamic economic perspective. The variables used are the values of the chemical and pharmaceutical industry sector and the food and beverage industry sector. This research uses several economic growth theories and Kaldor theory which discusses the manufacturing sector. The analysis method used is Ordinary Least Square (OLS). The hypothesis test used is test t-test, f test, and coefficient of determination R<sup>2</sup>. The results of this research are that the chemical and pharmaceutical sectors and the food and beverage sector do not have a significant effect on economic growth as seen from the probability >0.05.

**Keywords:** Manufacturing Industry, Economic Growth, Islamic Economic

## 1 Page layout

The manufacturing industrial sector has a big influence on the development of economic growth. The expansion of the manufacturing industry will trigger development in the agricultural sector which provides raw materials for industry. Likewise, the service sector is growing due to the existence of banking and marketing organizations that can encourage growth in the manufacturing industry sector. This improves job prospects and will develop and result in increased community income. It is seen that the manufacturing industrial sector can encourage and move the economy (Hamid, 2020).



**Fig. 1.** Gross National Income

Based on data from the Global Development Indicator, Gross National Income (GNI Current US\$) per capita, Indonesia experienced fluctuations in Gross National Income (GNI Current US\$), this table shows that Indonesia has just entered the classification of countries in the Upper Middle Income category starting in 2019. The categories of countries are in accordance with the classification issued by the World Bank as follows:

<sup>1</sup> Corresponding author: [nrlkh07@gmail.com](mailto:nrlkh07@gmail.com)

**Table 1.** Classification of Countries by Per Capita Income

Category	Per Capita Income
Low Income	USD 1.035
Lower Middle Income	USD 1.036 - USD 4.045
Upper Middle Income	USD 4.046 - USD 12.535
High Income	USD >12.535

Source : World Bank

In the concept of economic growth, the manufacturing sector is an indicator of economic growth and the backbone of a country's economic development. Kaldor stated in the growth model theory that the manufacturing sector has backward and forward linkages between sectors, so it is concluded that the manufacturing sector has a leading role in economic growth. Based on the assumption that the main driver is the manufacturing sector and therefore the activities of other sectors are largely determined by industry, the problem is approached by taking the total employment of the organized sector after manufacturing as a function of manufacturing employment. Manufacturing also has an impact on other sectors (spill over effect) through technical progress and economies of scale. Another important way in which manufacturing benefits the entire economy is through its role in international trade and the balance of payments. This is based on the fact that most international trade occurs in manufactured products. The manufacturing sector is able to absorb what is called residuals from other sectors in the form of production of goods and services which in turn will produce domestic needs for that sector. The development of the manufacturing sector will also generate demand for new service sectors, such as trade, banking services, financial services, and others. This turnover will become a new source of income in other sectors which will lead to economic growth in a country, so Kaldor calls the manufacturing sector the engine of economic growth.

Economic growth is defined as a condition where income increases due to an increase in the production of goods and services. Meanwhile, economic growth in an Islamic perspective according to Abdul Ghani' Abod is "Continuous development or transition summarizes the recovery of sources of wealth." or another definition of economic growth is a sustained growth of a right kind of output which can contribute to human welfare. (A continuous growth of production or results in the right way that can contribute to the welfare of humanity).

## 2 Literature Review

### 2.1 Rostow Stages of Economic Growth

The most influential proponent of the growth stages model of development (*stage-of-growth model of development*) is Walt W. Rostow, an American economic historian. According to Rostow, the transition from a backward economy to a developed economy can be described in steps and stages for a country. According to him, a country can move through successive stages in an effort to achieve progress.

In his theory, Rostow stated that developed countries had gone through all the stages of "taking off to self-sustaining growth". And underdeveloped countries that are still in the underdeveloped space or traditional society (precondition) only need to follow certain development rules to move towards a society with sustainable economic growth.

One way for economic development to rise from backwardness is by mobilizing domestic and foreign savings to generate sufficient investment to accelerate economic growth. The economic mechanism by which more investment produces greater growth can be described using the Harrod-Domar growth model or what is often called the AK model (Todaro, et al., 2011).

### 2.2 Structure Change Model

The theory of structural change has a hypothesis which states that underdevelopment occurs due to underutilization of resources originating from structural factors and institutions that arise from domestic and international dualism. Therefore, development requires more than just accelerating model formation.

Structural transportation is the process of transporting the economy in such a way that the contribution of the manufacturing sector to national income ultimately exceeds the contribution of the agricultural sector. More generally, a major change to the industrial composition of any economy. Structural-change theory (structural-change theory) focuses on the mechanisms implemented by underdeveloped countries to change the structure of their domestic economies, from ones that emphasized traditional subsistence agriculture to more modern, more urban-oriented economies, with more diversified manufacturing and service industries. This theory uses a neoclassical theoretical approach regarding prices and resource allocation as well as modern econometric methods to explain how the transformation process takes place. Two well-known examples of models representing the

structural-change approach are the theoretical "two-sector labor surplus" model. (two-sector surplus labor) from W. Arthur Lewis and the empirical analysis of "development patterns" (patterns of development) from Hollis B. Chenery and friends.

### 2.3 Industrial Economics

In industrial economics, the relationship between the variables discussed is related to the behavior of industrial companies in the economy. Each variable stated has a certain quantity value, the existence of which can be measured, can be traced and can be tested in everyday life. Thus, the various variable interrelationships discussed in industrial economics will provide us with an understanding of the state of interrelationships between relevant variables and their predictive power can be applied universally in accordance with the applicable scientific scope.

From the perspective of Hasibuan's microeconomic theory, industry is a collection of companies that produce homogeneous goods, or goods that have very close interchangeability. However, from a macro perspective, industry is defined as an economic activity that creates added value.

Industrial economics is an economic science that studies the behavior of industrial companies. Company behavior is related to the company's goals, and thus every business decision taken by industrial producers will of course be in line with the economic goals that have been determined/set previously by the company.

Microeconomic theory states that every company in the business world aims to maximize profits. According to Stigler, every profit-oriented company basically always tries to maximize profits. Profit is the income obtained by producers in carrying out their business activities, therefore the greater the profit obtained by a company in the market, the greater the income obtained by the producer concerned.

The relationship between the industrial economy and economic growth is very close. Industrial economics refers to the economic sector related to the production of goods and services through industrial processes, manufacturing, and production. Economic growth, on the other hand, refers to an increase in the output or total value of goods and services produced by a country or region in a certain period of time (Teguh, 2010).

### 2.4 Chemical Sector

The chemical and pharmaceutical sub-sector is one of the manufacturing industry sectors which is expected to have a fairly high level of economic growth. The food industry sub-sector and the chemical and pharmaceutical industry sub-sector are secondary sectors whose capital investment has always increased from 2013 to 2016 compared to other sectors. However, the chemical and pharmaceutical sub-sectors experienced a greater increase in investment value compared to the food industry. The chemical industry has a contribution in triggering the economic development of a country. The chemical industry includes the production of basic chemicals, pharmaceutical production, and various other special chemicals which have an important role in the economic sector.

Chemistry and pharmacy are one of the scientific disciplines that must be taken seriously in Islam because they are full of halal and haram issues. The materials, tools and equipment used in production are open to doubt regarding their halalness, as Allah says in surah Al-Baqarah verse 172:

يَا أَيُّهَا الَّذِينَ آمَنُوا كُلُوا مِن طَيِّبَاتِ مَا رَزَقْنَاكُمْ وَاشْكُرُوا لِلَّهِ إِن كُنتُمْ إِيَّاهُ تَعْبُدُونَ

It means: O you who believe, eat whatever is good that We have bestowed upon you and be grateful to God if you truly only worship Him. (Al-Baqarah: 172).

Dr. Zaidul Akbar (2020) explained that as a Muslim, it is important to ensure that what enters our body is a halal product. Haram products that enter our bodies will cause the deeds of worship that we do to not be accepted by Allah SWT.

The chemical and pharmaceutical sectors in this research use mashlahah theory. According to Mustafa al-Syalabi, professor of ushul fiqh at Al-Azhar University in Cairo, Egypt, there are two forms of mashlahah based on the aspect of changes in mashlahat, namely Al-Mashlahah al-tsabitah and Al-Mashlahah al-Mutaghariyya. In this review of chemistry and pharmacy, it is included in Al-Mashlahah al-Mutaghayyirah, namely problems that change according to changes in place, time and legal subject.

This mashlahah theory is further based on the element of dharuriyah. In relation to pharmacy, it is included in the study of Al-Mashlahah al-Dharuriyah, namely benefits related to the basic needs of humanity in the world and also in the afterlife.

The maqasid sharia al-syatibi theory in terms of the al-daru-riyyat element category, namely regarding *hifz al-din*, namely protecting religion and *hifz al-nafs*, namely maintaining the soul.

## 2.5 Halal Food and Beverage

The important processing industry is one of the main drivers of the national economy, because this sector focuses on increasing the added value of products, so as to increase GDP contribution. In relation to halal industry in QS. Al-Baqarah: 168 explains that:

يَا أَيُّهَا النَّاسُ كُلُوا مِمَّا فِي الْأَرْضِ حَلَالًا طَيِّبًا وَلَا تَتَّبِعُوا خُطُوَاتِ الشَّيْطَانِ إِنَّهُ لَكُمْ عَدُوٌّ مُبِينٌ

Meaning: O people, eat some (food) on earth that is halal and good and do not follow the steps of Satan. Indeed, for you he is a real enemy. (QS. Al - Baqarah 168)

In the book of interpretation by KH. Bisri Musthofa explained the background to the revelation of verse 168 of QS Al-Baqarah, because during the Jahiliyah era there were several groups who forbade consuming camel meat, which basically had the status of halal food. Therefore, Allah SWT revealed the verse about all humans being allowed to eat halal and good sustenance on earth and not being allowed to obey Satan

Halal food is a trend that has become a hot topic of conversation in the world of international business and has become an indicator of the manufacturing industry in processing halal food and drinks. Several opinions from scholars state that halal food and drinks are food that is nutritious, delicious, and has a positive impact on people's health. Islam recommends its followers to consume halal food and drinks with the aim of protecting themselves from damaging things.

## 2.6 Manufacturing Industry Theory

Kaldor's theory views that the processing industrial sector is an engine for the growth of a region to increase the growth of other sectors while increasing economic growth. Kaldor's growth theory in Dewi and Diah A.'s research in 2010 had three industrial aspects highlighted. GDP growth has a positive relationship with the growth of the manufacturing industrial sector. Then, labor productivity in the manufacturing sector has a positive relationship with the growth of the manufacturing industry itself. In this case, the manufacturing industrial sector is considered to produce an increasing scale of profits. This sector carries out capital accumulation and technological innovation (Azwina, et al. 2023).

Kaldor's theory considers that the manufacturing industrial sector is an engine of growth for a region in increasing the growth of other sectors while increasing economic growth. Kaldor's growth theory. In this theory, three aspects of the industry are highlighted. First, GDP growth has a positive relationship with the growth of the processing industrial sector. Second, labor productivity in the processing industry sector has a positive relationship with the growth of the processing industry sector itself. In this case the processing industry sector is considered to be able to produce increasing return to scale (increasing returns to scale). This scale can be created if this sector carries out capital accumulation and technological innovation. In this case, learning by doing is very important to maintain long-term steady conditions in the sector. Third, the growth of the non-processing industrial sector has a positive relationship with the growth of the processing industrial sector. This is motivated by the tendency of the non-processing industrial sector to lead to diminishing return to scale.

## 3 Methods

After all the data was collected, the author then analyzed the data using *e-views* from which conclusions can be drawn. In this research the author uses the analytical method *Ordinary Least Square (OLS)* which is used to test the influence of the manufacturing industry on economic growth,

### 3.1 Normality Test

The normality test is the first step in carrying out multiple linear regression. The aim of the normality test is to test a regression model where the confounding or residual variables have a normal distribution (Hamid, 2020). Testing the significance of the influence of the independent variable on the dependent variable via the t test will only be valid if the residual we get has a normal distribution. There are several methods used to detect whether residuals have a normal distribution or not, namely the histogram method and the test developed by Jarque-Bera (J-B). To know that the data is normally distributed, what must be considered is the probability  $<0.05$  (Widarjono, 2013).

### 3.2 Multicollinearity Test

The multicollinearity test aims to test whether in the regression model a high or perfect correlation is found between the independent variables. If perfect multicollinearity occurs between the independent variables X, then

the regression coefficient for variable X cannot be determined and the standard error value becomes infinite. If the multicollinearity between variables X is not perfect but is high, then the regression coefficient (Hamid, 2020). Linear relationships between independent variables can occur in the form of a perfect linear relationship (perfect) and less than perfect linear relationships (imperfect). If you use the OLS method to estimate the coefficients in the equation to get an estimator that is unbiased, linear, and has minimum variance (BLUE). The BLUE estimator does not require the assumption that it is free from multicollinearity problems. The BLUE estimator only deals with assumptions about nuisance variables. According to Widarjono, he explained that if there is multicollinearity, the estimator is still BLUE, it can still be maintained because the BLUE estimator is only related to the assumption of disturbance variables. An important assumption in BLUE is that the variance of the disturbance variable remains constant and there is no correlation between one disturbance variable and other observations (Widarjono, 2013).

One of the characteristics of multicollinearity symptoms is that the model has a high coefficient of determination ( $R^2$ ). But only a few independent variables significantly influence the dependent variable through the t2 test. However, based on the f test, it is statistically significant, which means that all independent variables jointly influence the dependent variable. Thus we can use *VIF* to detect multicollinearity problems. If value *VIF* The larger it is, the more multicollinearity is suspected. In *rules of thumb* if value *VIF* If the number exceeds 10, it is said that there is multicollinearity (Widarjono, 2013).

### 3.3 Heteroscedasticity Test

The heteroscedasticity test is used to test whether the variance of the variable is constant or not. The way to detect heteroscedasticity is to use the Glejser method. Econometrician Glejser said that the value of the variance of the disturbance variable depends on the independent variables in the model. So that we know whether the pattern of disturbance variables contains heteroscedasticity or not, Glejser suggests regressing the absolute value of the residual with the independent variable.

To determine the presence of heteroscedasticity, it can be seen from the F-Statistic Probability or Obs\* R-Square <0.05, then heteroscedasticity occurs (Wasilaine, 2014).

### 3.4 Autocorrelation Test

Literally, autocorrelation means that there is a correlation between one member of an observation and another observation at a different time. In relation to the OLS method, autocorrelation is the correlation between one disturbance variable and another disturbance variable. Meanwhile, one of the important assumptions of the OLS method regarding disturbance variables is that there is no relationship between one disturbance variable and another disturbance variable. In the autocorrelation test which aims to test the assumption of the third disturbance variable, namely that there is no correlation between the disturbance variables of one observation and another observation (Widarjono, 2013).

**Tabel 2.** Durbin-Watson Statistical Test

Statistical Value $d$	Results
$0 < d < dL$	Reject $H_0$ ; there is positive autocorrelation
$dL < d < du$	Areas of doubt - no decisions
$du < d < 4 - du$	Failed to reject $H_0$ ; there is no negative/positive correlation
$4 - du < d < 4 - dL$	Areas of doubt - no decisions
$4 - dL < d < 4$	Reject $H_0$ ; there is positive autocorrelation

Based on the table above, the results of the Durbin-Watson test can be concluded as follows: (1) If the value  $d$  less than the lower limit ( $dL$ ) or close to 0, it can be concluded that there is positive autocorrelation; (2) If value  $d$  less than the upper limit ( $du$ ) or close to the lower limit ( $dL$ ), the results are not concluded because they are in the area of doubt; (3) If value  $d$  less than ( $4-du$ ) or close to the upper limit ( $du$ ), it can be concluded that there is no correlation; (4) If value  $d$  less than ( $4- dL$ ) or close to ( $4-du$ ), the results cannot be concluded because they are in the area of doubt; (5) If value  $d$  less than 4 or close to ( $4-dL$ ), it can be concluded that it exists *autocorrelation* negative.

In another method, namely the Breusch-Godfrey method, a more general autocorrelation test is developed, namely what is known as the test *Lagrange Multiplier (LM)*. The LM test results can be concluded from the Chi-Squares value, if the prob. Chi-Squares are greater than the significance level, so it can be concluded that the model does not contain elements of autocorrelation. Vice versa, if the value of prob. Chi-Squares are smaller than the significance level, so it can be concluded that the model contains elements of autocorrelation.

A significance test is the result of research and a significance test shows whether the hypothesis created at the beginning is accepted or not. In this research, hypothesis testing consists of three types, namely as follows:

### 3.5 Test *t*-test

The *t* test procedure for partial regression coefficients in multiple regression is the same as the procedure for testing simple regression coefficients. The *t* regression coefficient test is used to determine the effect of the independent variable on the dependent variable partially (Widarjono, 2013).

### 3.6 F Test for Model Significance

The F Significance Test is used to see how all independent variables influence the dependent variable (Ghozali, 2013). The level used is 0.5 or 5%, if the significant value of  $F < 0.05$  then it can be interpreted that the independent variable simultaneously influences the dependent variable or vice versa.

### 3.7 Coefficient of Determination $R^2$

Testing the coefficient of determination  $R^2$  This is done with the aim of measuring the model's ability to explain how the independent variables jointly (simultaneously) influence dependent variable that can be indicated by a value *adjusted R – Squared*

The Determination Coefficient is used to answer whether the estimation model is good at matching actual data. The coefficient of determination can be interpreted as the closeness of the estimated regression data to the actual data. The coefficient of determination value lies at  $0 \leq R^2 \leq 1$ . The closer the coefficient of determination value is to 1, the better the regression line because it is able to explain the actual data. On the other hand, if the coefficient of determination value is close to 0, then the regression line is not good.

## 4 Results and Disucssion

Indonesia has large market potential to grow its manufacturing industry, according to the Ministry of Industry. To meet domestic needs and even to fill the export market, the Ministry of Industry is committed to increasing the productivity of the domestic manufacturing industry. Therefore, it is necessary to carry out strategic strategies, such as those related to the availability of raw resources and energy supply.

### 4.1 Normality Test

The method used in the normality test is the residual histogram and Jarque-bera test. If the histogram graph resembles a bell then it is said that the residuals have a normal distribution.

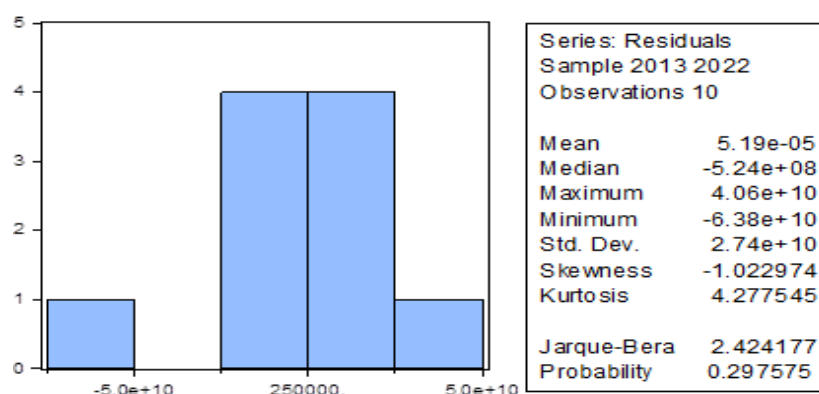


Fig. 2. Normality Test

Based on the picture above, it shows that the residual data values in Indonesia are normally distributed, as seen in the values *Probability* namely 0.297575 which is greater than 0.05.



#### 4.2 Multicollinearity Test

The multicollinearity test is used to determine whether there is a relationship between independent variables or not. The author uses a multicollinearity test by looking at the results Centered VIF. If value *Centerd VIF* <10 then the variable is free from multicollinearity.

**Table 3.** Multicollinearity Test Results

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
<b>MALAYSIA</b>			
C	7.69E+22	795.4521	THAT
X1	5.24E+20	489.4703	1.037041
X2	2.60E+19	191.7058	1.037041

Based on the table above, the results of each variable value are free from multicollinearity because the Indonesian Centered VIF is <10.

#### 4.3 Heteroscedasticity Test

**Table 4.** Heteroscedasticity Test Results

<b>Heteroscedasticity Test: Glejser</b>			
<b>INDONESIA</b>			
F-statistic	1.124749	Prob. F(3,5)	0.3771
Obs *R-squared	2.432021	Prob. Chi-Square(3)	0.2964
Scaled explained SS	2.323640	Prob. Chi-Square(3)	0.3129

The heteroscedasticity test is used to test whether the variance of the confounding variables is constant or not. In this research the author used the Glejser method.

The results of the Glejser test in the table above are data from Malaysia and Indonesia which do not contain heteroscedasticity. This can be seen from the prob value. Indonesian Chi-square is greater than >0.05

#### 4.4 Autocorrelation Test

The autocorrelation test is used to detect whether there is a correlation between the disturbance variable and other disturbance variables. In this study the author used the Durbin-Watson method to test autocorrelation.

**Table 5.** Durbin-Watson Test Result

<b>Uji Durbin-Watson</b>	
Indonesia	
Durbin-Watson stat	1.529569

*Source: Data Processing Results (July 2024)*

Based on the test results above, it shows that the Durbin-Watson value in Indonesia is 1.529569. After knowing the statistical value, calculate d. So the next step is to compare the calculated value d with the critical value d at the 5% significance level. With the number of samples (n=10) and the number of variables (k=3) the value  $D_L=0.5253$  and the value  $D_U=2.0163$  are obtained.

The Durbin-Watson test results in Indonesia are  $(0.6972 < 1.529569 < 1.6413)$  so it can be concluded that the model is in the area of doubt

Apart from using the Durbin-Watson test, the author also uses the Breusch-Godfrey Serial Correlation LM Test to confirm whether the Indonesian country data used has autocorrelation or not, because in the Durbin Watson test there is no decision.

**Table 6.** LM Test Correlation Test Results

<b>Breusch-Godfrey Serial Correlation LM Test:</b>			
INDONESIA			
F-statistic	0.363002	Prob. F(1,6)	0.5689
Obs*R-squared	0.570488	Prob. Chi-Square(1)	0.4501

*Source: Data Processing Results (July 2024)*

Based on the LM test results table, it shows that there is no autocorrelation in the model in Indonesia because the value of Prob. Chi-Square (1) > 0.05 indicates that the model does not contain autocorrelation. So you can continue with the next step, namely the significance test.

#### 4.5 Significance Test Results of the independent variable (t-test)

The variable significance test (t-test) is used to test whether the independent variable is dependent. In his research, the author used the t test to determine the effect of added value in the agricultural, industrial, service and manufacturing sectors on the dependent variable, namely GDP. The t test results can be seen as follows:

**Table 7.** Significance Test Results t

<b>Significance Test t</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-statistic</b>	<b>Prob.</b>
Indonesia				
C	9.32E+11	2.77E+11	3.360673	0.0121
X1	-5.38E+10	2.29E+10	-2.349695	0.0511
X2	-3.40E+09	5.10E+09	-0.667778	0.5257

Based on the results of the t test above, the relationship between each independent variable and the dependent variable is explained as follows:

- a. The influence of the added value variable of the chemical and pharmaceutical sectors on GDP in 2013-2022 (X1).

Based on the results of the t significance test, it shows that the value added variable in the chemical sector in Indonesia is negative and has no significant effect. This can be seen from the coefficient (-5.38E+10) with a probability of more than < 0.05. The influence of the added value variable in the chemical sector on GDP in 2013-2022

- b. Based on the results of the t significance test, it shows that the added value variable in the food and beverage sector in Indonesia does not have a significant effect on economic growth with a probability value of > 0.05.

#### 4.6 Significance Test Results F-Test

The F-test significance test is used to measure the influence of the independent variable simultaneously on the dependent variable. The results of the f test in this research are:

**Table 8.** Significance Test Results F-Test

<b>Malaysia</b>	
F-statistic	2.786481
Prob(F-statistic)	0.128769



The results used in the f test show that the Indonesian F significance value is 2.786481 with a probability (f-statistic) of 0.128769, namely  $>0.05$ , so it can be concluded that the variables in the pharmaceutical chemical sector and the food and beverage sector 2013-2022 have a joint effect on GDP.

#### 4.7 Coefficient of Determination

The coefficient of determination is used to explain how large a proportion of the variation in the dependent variable is explained by the independent variable. The coefficient of determination requires caution because the aim of the coefficient of determination is to get a high value. One of the weaknesses of the coefficient of determination is that the value always increases when adding variable X which does not necessarily have justification from economic theory. Econometricians provide other alternatives so that values can explain how well a model works. So the author uses the coefficient of determination in his research.

**Table 9.** Coefficient of Determination Value

Indonesia	
R- Squared	0.443250
Adjusted R-Square	0.284178

Based on the results of the table above, it shows that the adjusted coefficient value in Indonesia is 0.284178, which means 28.4% of GDP by the added value of the pharmaceutical chemical sector and the food and beverage sector. While the rest is explained outside the model.

The manufacturing industrial sector is very important for a country's economic development because of its contribution to national economic development goals, especially in the formation of a large GDP and its ability to increase high added value.

In this regard, Indonesia's economic growth has a correlation with the growth of the manufacturing industry, which shows that the decline in economic growth is accompanied by a decline in the growth rate of the manufacturing industry sector in Indonesia. This is in line with Kaldor who stated that the manufacturing industry is closely related to economic growth.

**Table 10.** Indonesian Chemical Sector

	Unit	Year	Mark
Chemical Sector	US\$	2013	10.3
		2014	9.08
		2015	9.89
		2016	9.89
		2017	9.51
		2018	9.70
		2019	9.28
		2020	9.06
		2021	9.06
		2022	9.06

*Sumber: World Development Indicator*

The chemical sector is a sector listed on the Indonesian Stock Exchange in the manufacturing industry, including the industrial branch that produces basic materials which will then be processed into finished goods. The chemical sector requires a lot of resources, including human resources. Thus the chemical sector has a very important role to pay attention to because the products produced from this sector are products that will be used

again for production so that products from the chemical sector can stimulate community productivity and can illustrate how big a role the community plays in carrying out production.

In this study, the chemical sector did not have a significant effect on economic growth, this was explained by the probability in the t test which was  $>0.05$ . This statement is strengthened by research conducted by Soen Steven regarding the independence of the chemical industry sector on Indonesia's economic growth. The results of his research are that the chemical industry in Indonesia has challenges and has proven promising as a result of the growth of the manufacturing industry and a fast consumerist lifestyle, however this country faces several challenges that need to be analyzed and understood carefully. All products, including production machinery imported from the European Union (EU), are subject to high import duties and taxes, in the absence of a free trade agreement between the EU and Indonesia or ASEAN. This can cause prices to be uncompetitive when compared with other countries, such as China, Korea, Japan and India.

The Chemical and Pharmaceutical sectors in Indonesia are closely related to halal products. However, the chemical and pharmaceutical sectors are related to health and this is a quite crucial issue regarding the halalness of these chemical and pharmaceutical products.

In Islam, it is believed that everything that enters the body or is consumed by a person must be halal. This is as explained by Allah in surah Al-Baqarah 172 which reads as follows:

يَا أَيُّهَا النَّاسُ كُلُوا مِمَّا فِي الْأَرْضِ حَلَالًا طَيِّبًا وَلَا تَتَّبِعُوا خُطُوَاتِ الشَّيْطَانِ إِنَّهُ لَكُمْ عَدُوٌّ مُبِينٌ

Meaning: O people, eat some (food) on earth that is halal and good and do not follow the steps of Satan. Indeed, for you he is a real enemy. (QS. Al – Baqarah 168).

In this case the chemical and pharmaceutical sectors must be concerned with the halalness of the materials used. The chemical and pharmaceutical sectors in this research use mashlahah theory. According to Mustafa al-Syalabi, professor of ushul fiqh at Al-Azhar University in Cairo, Egypt, there are two forms of mashlahah based on the aspect of changes in mashlahat, namely Al-Mashlahah al-tsabitah and Al-Mashlahah al-Mutaghariyya. In this review of chemistry and pharmacy, it is included in Al-Mashlahah al-Mutaghayyirah, namely problems that change according to changes in place, time and legal subject.

This mashlahah theory is further based on the element of dharuriyah. In relation to pharmacy, it is included in the study of Al-Mashlahah al-Dharuriyah, namely benefits related to the basic needs of humanity in the world and also in the afterlife.

The maqasid sharia al-syatibi theory in terms of the al-daru-riyyat element category, namely regarding hifz al-din, namely protecting religion and hifz al-nafs, namely maintaining the soul. Shaykh Muhammad bin Salih al-Utsmaini explained that medical treatment is mandatory if leaving would cause harm to the body.

**Table 11.** Food and Beverage Sector

	Unit	Year	Mark
Food Sector	US\$	2013	28.36
		2014	27.37
		2015	26.88
		2016	26.21
		2017	22.88
		2018	23.94
		2019	25.21
		2020	27.85
		2021	28.87
		2022	28.87

*Sumber : World Development Indicator*

The food and beverage industry is an industry that is very developed in every country, Indonesia is one of them. Based on the Central Statistics Agency, growth in the beverage industry sector was recorded to have increased by 3.57%, in the 2013 period there was also an increase of 11.79%. GAPMMI Secretary General, Franky Sibarani, also revealed that food and beverage industry export growth reached 6.7% in 2013.

However, in this research, the food and beverage industry sector has no significant effect on economic growth, this is because the food and beverage industry in Indonesia has a market form, namely monopolistic competition, where no one has a significant market share but has many competitors. The behavior of the food and beverage

industry in Indonesia can be seen from the product pricing strategy in which the company's position is as a price taker even though its ability to influence prices is relatively small. The ability to influence prices comes from the characteristics of the products produced, such as quality, packaging, shape, etc. so that competition apart from price is quite large.

Indonesia, as the largest Muslim population in the world, is important to prioritize halal products in the food and beverage industry. The important processing industry is one of the main drivers of the national economy, because this sector focuses on increasing the added value of products, so as to increase GDP contribution. In relation to halal industry in QS. Al-Baqarah: 168 explains that:

يَا أَيُّهَا النَّاسُ كُلُوا مِمَّا فِي الْأَرْضِ حَلَالًا طَيِّبًا وَلَا تَتَّبِعُوا خُطُوَاتِ الشَّيْطَانِ إِنَّهُ لَكُمْ عَدُوٌّ مُبِينٌ

Meaning: O people, eat some (food) on earth that is halal and good and do not follow the steps of Satan. Indeed, for you he is a real enemy. (QS. Al - Baqarah 168)

In the book of interpretation by KH. Bisri Musthofa explained the background to the revelation of verse 168 of QS Al-Baqarah, because during the Jahiliyah era there were several groups who forbade consuming camel meat, which basically had the status of halal food. Therefore, Allah SWT revealed the verse about all humans being allowed to eat halal and good sustenance on earth and not being allowed to obey Satan.

With the existence of the food and beverage industry sector, Halal food is a trend that has become a hot topic of conversation in the international business world and has become an indicator of the manufacturing industry in processing halal food and beverages. Several opinions from scholars state that halal food and drinks are food that is nutritious, delicious, and has a positive impact on people's health. Islam recommends its followers to consume halal food and drinks with the aim of protecting themselves from damaging things.

## 5 Conclusion

The chemical and pharmaceutical industry sectors in this study do not have a significant influence on economic growth. This is confirmed by a probability value  $>0.05$ . This is related to the chemical industry in Indonesia has challenges and has proven promising as a result of the growth of the manufacturing industry and fast consumerist lifestyles, however this country faces several challenges that need to be analyzed and understood carefully. All products, including production machinery imported from the European Union (EU), are subject to high import duties and taxes, in the absence of a free trade agreement between the EU and Indonesia or ASEAN.

Islam views the chemical and pharmaceutical industry sectors as having a concern for halal products. This is related to In this case the chemical and pharmaceutical sectors must be concerned with the halalness of the materials used. The chemical and pharmaceutical sectors in this research use mashlahah theory. According to Mustafa al-Syalabi, professor of ushul fiqh at Al-Azhar University in Cairo, Egypt, there are two forms of mashlahah based on the aspect of changes in mashlahat, namely Al-Mashlahah al-tsabitah and Al-Mashlahah al-Mutaghariyya. In this review of chemistry and pharmacy, it is included in Al-Mashlahah al-Mutaghayyirah, namely problems that change according to changes in place, time and legal subject.

The food and beverage processing sector in this study does not have a significant effect on economic growth with a probability value of  $>0.05$ . This is related to the food and beverage industry market in Indonesia because the food and beverage industry in Indonesia has a market form, namely monopolistic competition where no one has a significant market share but has many competitors. Indonesia, as the largest Muslim population in the world, is important to prioritize halal products in the food and beverage industry. With the existence of the food and beverage industry sector, Halal food is a trend that has become a hot topic of conversation in the international business world and has become an indicator of the manufacturing industry in processing halal food and beverages. Several opinions from scholars state that halal food and drinks are food that is nutritious, delicious, and has a positive impact on people's health. Islam recommends its followers to consume halal food and drinks with the aim of protecting themselves from damaging things.

## References

- Azwina , Rafika and others. (2023). Manufacturing Industry Strategy in Increasing the Acceleration of Economic Growth in Indonesia'. *Profit: Journal of Management, Business and Accounting*, 2.(1): 44–55
- Ghozali, Imam. (2013). *Quantitative and Qualitative Research Design in Accounting, Business and Other Social Sciences*. Semarang: Diponegoro University Publishing Agency.
- Hamid, R.S., Bachri, S., Salju dan Ikbal, M. (2020). *Panduan Praktis Ekonometrika: Konsep Dasar dan Penerapan Menggunakan EViews 10*. Serang: CV. A.A. Rizky.

Teguh, M. (2010).. *Ekonomi Industri*. Jakarta: PT Raja Grafindo Persada.

Todaro, Michael P., Stephen C. Smith, and B. D. Putra. (2011). *Economic Development*, 11th edition volume 1. Jakarta: Erlangga.

Wasilaine, Trifena L., Mozart W. Talakua, and Yopi A. Lesnussa. "Ridge Regression Model to Overcome Multiple Linear Regression Models Containing Multicollinearity." *Barekeng: Journal of Mathematical and Applied Sciences* 8, no. 1 (2014): 31-37.

Widarjono, Agus. (2013). *Econometrics: Introduction and Applications*. Yogyakarta: UPP STIM YKPN