

FACTORS AFFECTING BEEF VOLUME IMPORTED FROM AUSTRALIA

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Abstract

Indonesia has a shortage supply of some foods. As a developing country that ranks fourth in the world as the country with the largest population. Indonesia has a high demand for foods that cannot be fulfilled by domestic products. The degree of concentration for beef in Indonesia is relatively distributed. It means that Indonesia is still depend on beef import. It is necessary to analyze the increase in the volume of beef imports because the dependence on imports on a product shows that the government has ruled out Indonesia's potential to produce more domestic beef. The aim of this study is to analyze the influence of consumption, production and gross domestic product on the volume of beef import from Australia in period 2010- 2019. This research applied explanatory research method with quantitative approach. The data sources collected from Badan Pusat Statistik (BPS) and trademap.org. The sample in this research is determined by purposive sampling. The study explored with multiple linear regression statistical analysis. The result showed that consumption had insignificant effect on the volume of beef import partially. Meanwhile, production had significant negative effect on the volume of beef import. Gross domestic product also had partial significant positive effect on the volume of beef import.

Keywords: Consumption, Production, Gross Domestic Product, Beef Import

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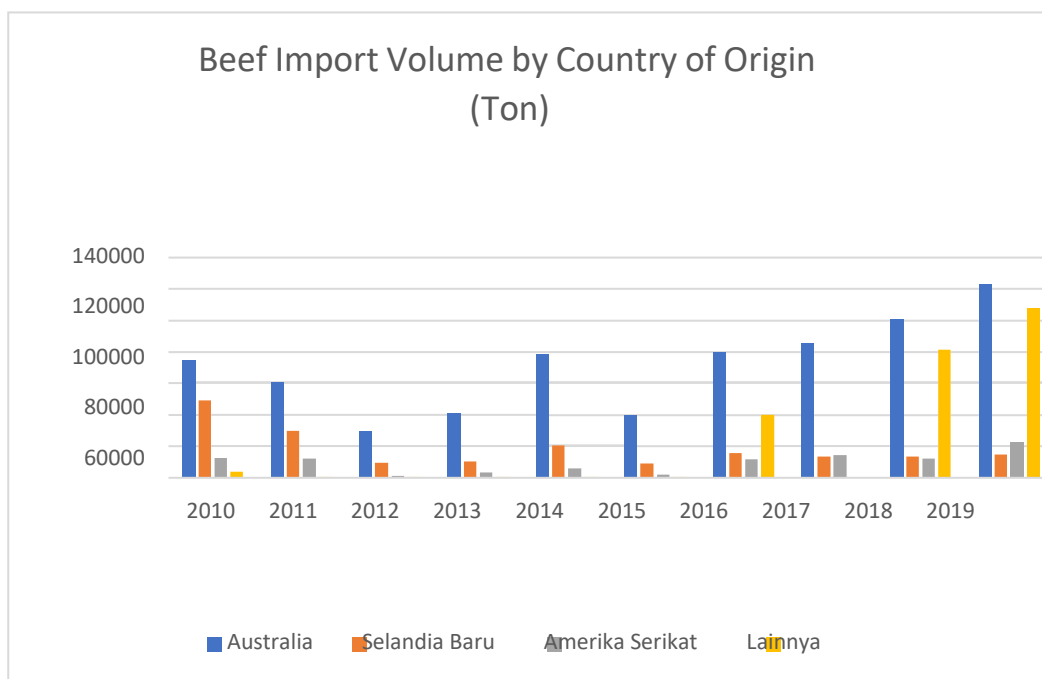
Trading between countries has been carried out to fulfill global needs. Countries benefit from international trade because they are exposed to new markets and products. Opening trade with diverse countries throughout the world will help the country and lead to economic progress, either directly through effect on resource allocation and efficiency, or indirectly by increased investment level (Rusydiana, 2009).

Indonesia has a shortage supply of some foods. As a developing country that ranks fourth in the world as the country with the largest population. Indonesia has a high demand for foods that can not be fulfilled by domestic products. Thus, it cause import increase. Various policies have been implemented by the government to fulfill domestic production, one of which is importing. Import is an activity of selling goods and services from abroad to the customs area (Supardi, 2019).

The degree of concentration for beef in Indonesia is relatively distributed (Hanum & Setyari, 2015). It means that Indonesia is still depending on beef import. It is necessary to analyze the increase in the volume of beef imports because the dependence on imports on a product shows that the government has ruled out Indonesia's potential to produce more domestic beef.

In the beginning of 2020, a global pandemic which was quite disturbing for the public had spread, namely the COVID-19, had an impact on social, economic, and health orders. The COVID-19 has resulted in a global crisis. A crisis is an event that will lead to an unstable and dangerous situation that affects individuals, groups, communities, or the entire society (Goniewicz, 2020). Crises are perceived as negative changes in security, economic, political, social, or environmental issues, especially when they occur suddenly with little or no warning. On March 2, 2020, the first case of the COVID-19 was found in Indonesia and since then, various efforts have been made to prevent the spread of the COVID-19, including in the work environment. Efforts to prevent the COVID-19 at work sites include complying with regulations related to Occupational Safety and Health (OSH).

Figure 1.
Beef Import
Volume By
Country Of
Origin (2010-
2019)



It can be seen from Figure 1 that the volume of Indonesia's beef imports fluctuated and tended to experience and increase from 2015 which was 50,689.7 tons to 262,251.3 tons in 2019. In 2010 there was a beef imports volume of 104,141.2 tons and then decreased until 2012 to 40,340 tons. The largest beef imports for Indonesia come from Australia, New Zealand, and the United States.

Ningrum (2018:3) said that the increase in import volume was influenced by several factors, including consumption and production. Population growth that always increases every year, changes in people's tastes and accompanied by technological advances may make people more aware to consume balanced nutritional foods. There is a complete and balanced essential amino acid in beef protein and also contains a number of minerals and vitamins. Essential amino acids cannot be produced by the human body, while non-essential amino acids can be produced by the human body itself. In addition, beef also has a soft meat texture so it doesn't require a lot of time and spices to cook. However the increase in consumption is not matched by production.

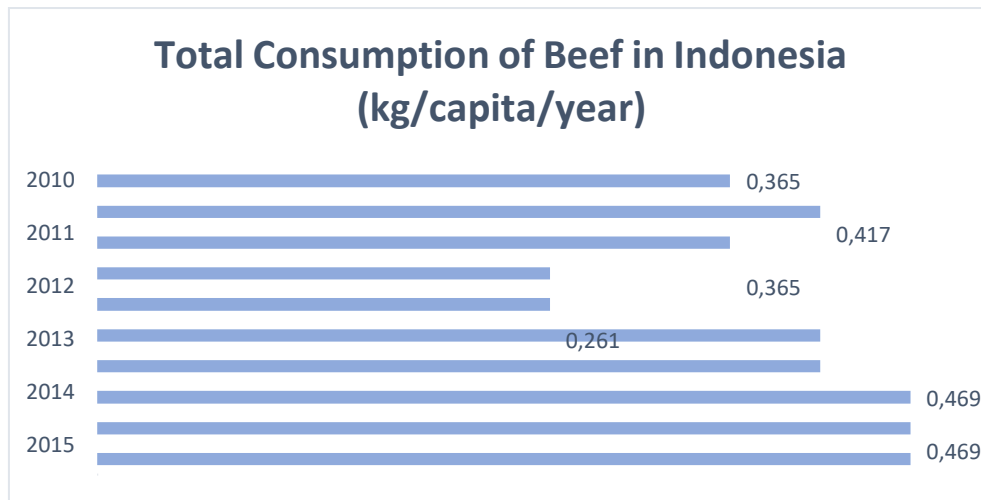


Figure 2.
Total Consumption
Of Beef In Indonesia
(2010 – 2019)

Source: <https://rembangkab.go.id/bansos-bantuan-sosial/>

From the table above, it can be seen that the lowest amount of consumption was in 2013 and 2014 which was 0.261kg. Since 2014, consumption has increased to the largest consumption rate, which is from 2017 to 2019 of 0.469 kg. In previous research, Chisilia & Widanta (2019) stated that consumption has a positive and significant effect on the volume of beef imports. Thus, if consumption increases, the volume of imports will also increase. This happens because the increase in population is accompanied by increasing needs then the state will fulfill it by importing. On the contrary, Oktaviarosa (2019) stated that consumption has no significant effect on the volume of beef imports. It is because there are still many household consumers who prefer fresh meat which means it comes from domestic production.

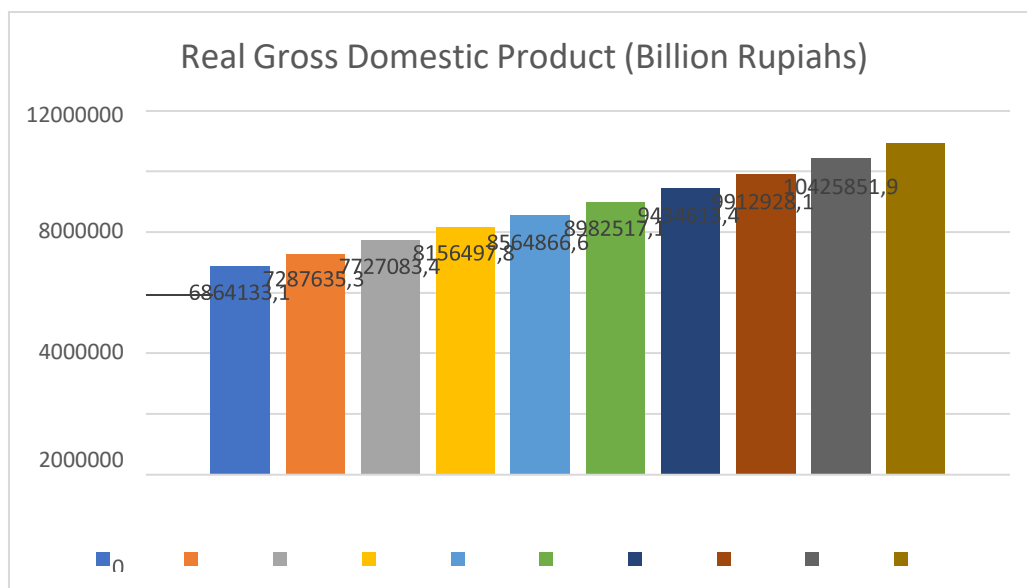
Year	Production (Ton kg)
2010	436.450
2011	485.335
2012	508.905
2013	504.819
2014	497.669
2015	506.660
2016	518.484
2017	486.319
2018	497.971
2019	504.802

Table 1.
Total Production
of Beef In
Indonesia (2010 –
2019)

Based on the table 1, it can be seen that from 2010 to 2019 beef production in Indonesia fluctuated. From 2010 to 2012 there was an increase every year from 436.450 tons to 508.905 tons. However, in 2013 it decreased, the production was only 504.819 tons. A previous study Yudhanto (2019) showed that production has a negative and significant effect on the volume of beef imports. This means if production increases, the volume of imports will decrease. It happens because if domestic production is able to fulfill domestic needs then imports will be reduced. On the contrary, Chisilia & Widanta (2019) stated production has no significant effect on the volume of beef imports. This is because there is a perception that imported beef has better quality than domestic beef.

There are other factors that affect the amount and value of imports in a country, one of which is Gross Domestic Product (GDP). Putong (2003) declared Gross domestic product (GDP) is the market value of goods and services produced by a country in a certain period by accumulating the production of that country's citizens plus foreign who working in that country. An increase in a country's GDP reflects an increase in people's ability to import products.

Figure 3.
Real Gross
Domestic Product
(2010 - 2019))



From Figure 3 it can be seen that Indonesia's gross domestic product (GDP) has always increased starting in 2010 which was 6,864,133.10 million rupiahs until 2019 reaching 10,949.037.80 million rupiahs. Anggiani & Azizah (2018:129) mentioned Gross domestic product (GDP) has a positive and significant effect on the volume of beef imports. It is because the higher the income, the higher the people's purchasing power which causes an increase in consumption. On the contrary, Anggara (2020:73) stated that gross domestic product (GDP) has no significant effect on the volume of beef imports. It can happen because of the import restriction policy that sometimes changes then it makes people allocating their income for the consumption in other commodities.

Based on the data and statements elaborated how is the influence of consumption, production, and gross domestic product (GDP) on the volume of beef import from Australia.

LITERATURE STUDY

International Trade Theory

Trade is an activity of exchanging goods and services at the will of each party conducting trade. International trade is a trade agreement of goods or services between one place and another that crosses national borders to obtain profits by following all applicable regulations in both countries (Supardi, 2019:4)

1. Some experts have a view on international trade which is based on the superiority of a commodity traded by two or more countries. Adam Smith : Absolute Advantage
According to Adam Smith in Ekananda (2014:20), the theory of absolute advantage used labor value theory. The labor theory of value is very simple because it uses the assumption that labor is the only factor of production. Absolute advantage became the basis in trade between two countries. If a country is more efficient and has an absolute advantage over other countries in producing other commodities, then both countries can benefit by specializing in producing a commodity. Through this activity, resources in both countries can be used in the most efficient way, Commodity produced will increase. The increase in production is a measure of the benefits of specialization in production for the two countries that carry out trade.
2. David Ricardo : Comparative Advantage
A british economist, David Ricardo, developed a model of international trade in the early nineteenth century that introduced the concept of comparative advantage. Ekananda (2014:23) said this theory in contrary to the absolute advantage theory which prioritizes absolute advantage in certain productions owned by a country compared to other countries, comparative advantage theory argued that international trade can occur even though a country does not have an absolute advantage, as long as the comparative prices in the two countries are different. In other words, a country will product goods that can be produced more cheap than other countries and will import goods which if produced itself costs a lot of money.

Import

Supardi (2019:5) said import is an activity of entering goods from abroad into the customs area. Imports consist of imports of goods and services. Meanwhile, according to the customs law, import is the activity of entering goods into the customs area. The goods referred to are goods in any form and type that enter the customs area.

Krugman in Surbakti & Gulo (2017:6) explained several factors encourage imports :

1. Limited quality of human resources and technology to process available natural resources to achieve optimal effectiveness and efficiency in domestic production activities.
2. Some goods and services have not been or cannot be produced domestically.
3. There is an insufficient quantity or quantity of goods in the country.

Meanwhile Hairani (2014:78) revealed factors affecting imports from the demand side are as follows:

1. Price
High price indicates an increase in demand that is not accompanied by an increase in supply. When prices rise, imports are carried out to stabilize prices at a level that is affordable to the public.
2. Exchange Rate
The increase in the rupiah exchange rate against other currencies will cause exporters' interest to export goods because the rupiah exchange rate is getting weaker, thus exporter will gain more profit (the number of imports will increase) and vice versa.
3. Previous Import Volume
The volume of import in the previous year has an effect on the volume of import in the next year. This is because the volume of imports of a country reflects the inability of domestic production to meet domestic demand.
4. Consumption
The higher the consumption, it means that there is an increase in demand. Thus, the demand for imports also increases.
5. Gross Domestic Product
An increase in per capita income will affect demand, income will shift the demand curve to the right, which means an increase in people's purchasing power.

Demand Theory

Putong (2003:32) indicated that demand is the amount of demand in a certain market at a certain price, income, and period. There are several factors that affect the demand for a product.

1. Price
The demand for goods will increase if the price of an item is getting cheaper and vice versa.
2. Income
Income reflects people's ability to buy something. The higher the income, the higher the purchasing power so that the demand for an item also increases
3. Population
The increase in population is always accompanied by an increase in consumption, so the demand also increases.
4. Taste and estimation in the future
The level of demand is determined by changes in one's tastes and estimates of the availability of certain products in the future.
5. Price of other goods/substitutions
The amount of demand is affected if there are two price choices for an item that are substitutes and complementary.

Consumption

Life cycle hypothesis theory explained individual consumption is not only from income, also depends on the wealth owned, this wealth comes from the allowance for income that is not consumed, namely savings and from inherited or hereditary wealth. This hypothesis sees that people plan their consumption and saving behavior over the long term with the aim of allocating their consumption in the best possible way over their lifetime (Hasyim, 2016:148)

Production

According to Joesron & Fathorrazi (2012:87) the definition of production is the process of combining existing goods and services, while economically, namely the creation or addition of new value, use, or benefits through a process. The production function is a technical relationship between inputs and outputs. Inputs used in the production process ($X_1, X_2, X_3 \dots X_n$) can be written as follows.

$$Q = f(X_1, X_2, X_3 \dots X_n)$$

Where : Q is for the output, and X is for the Input

unlimited needs while the means to satisfy these needs are very limited. To solve this problem, the act of choosing various possible alternatives to meet unlimited needs arises. In addition, humans are also trying to produce optimal output using limited inputs.

Gross Domestic Product

Gross domestic product (GDP) is the market value of goods and services produced by a country in a certain period by accumulating the production of that country's citizens plus foreign who working in that country (Putong, 2003:162) . An increase in a country's GDP reflects an increase in people's ability to import products.

Figure 3.

Research and
Analysis
Framework

Gross Domestic Product (GDP) is categorized into two, namely nominal and real. Nominal GDP is the total GDP valued at current prices while real GDP is GDP valued at prices that have been set in a certain period. GDP can be determined via three primary methods. All three methods should yield the same figure when correctly calculated. These three approaches are often termed the expenditure approach, the output (or production) approach, and the income approach.

1) The Expenditure Approach

$$\text{GDP} = \text{Consumption} + \text{Government Spending} + \text{Investment} + \text{Net Export}$$

2) The Production Approach

$$\text{GDP} = \text{Gross Value of Output} - \text{Value of Intermediate Consumption}$$

3) The Income Approach

$$\text{GDP} = \text{Total National Income} + \text{Sales Taxes} + \text{Depreciation} + \text{Net Foreign Factor Income}$$

CORRELATION BETWEEN VARIABLES AND RESEARCH HYPOTHESIS DEVELOPMENT

Effect of Consumption on Beef Import

Keynes in Nasrullah (2020) explained that current consumption is strongly influenced by current disposable income. There is a minimum consumption limit that does not depend on the level of income. That is, the level of consumption must be met, even though the level of income is equal to zero. That is called autonomous consumption. High population growth in Indonesia is accompanied by growth in autonomous consumption. Indonesia as a developing country requires more production of varied goods where there is a possibility that the country has not been able to produce efficiently enough to meet demand. This theory is also in accordance with the theory of international trade by Adam Smith that international trade can occur due to differences between the factors of production of each country with different amounts of production from each country. If applied in this study with the existence of international trade, then Indonesia can import beef to cover the shortage of beef consumption in the country which is not matched by the increasing number of beef production levels. Therefore, consumption in this study is considered as a factor affecting import. Thus, the following hypothesis is obtained.

Ha1: Beef consumption influences the volume of beef import from Australia

Effect of Production on Beef Import

Krugman in Surbakti & Gulo (2017) explains that there are several factors that encourage imports, including the limited quality of human resources and technology owned to process available natural resources in order to achieve optimal effectiveness and efficiency in domestic production activities, the existence of goods and services that cannot be produced domestically, and the number or quantity of goods in the country is not sufficient. The use of consumer goods in Indonesian society is quite a lot and it is not common for domestic production to be unable to meet all public demands. So that the Indonesian government takes several options and policies, one of which is by importing or purchasing goods and services from abroad.

This is in line with theory of Absolute Advantage by Adam Smith which said a country will import a type of goods, if the country cannot specialize in the production of commodities and earns an absolute loss. If applied in this study with different productivity levels from other countries, it causes differences in the amount of beef production in each country. Thus, the government can import beef from countries with high production levels in order to cover the shortage of domestic production. Therefore, production in this study is considered as a factor affecting import. Thus, the following hypothesis is obtained.

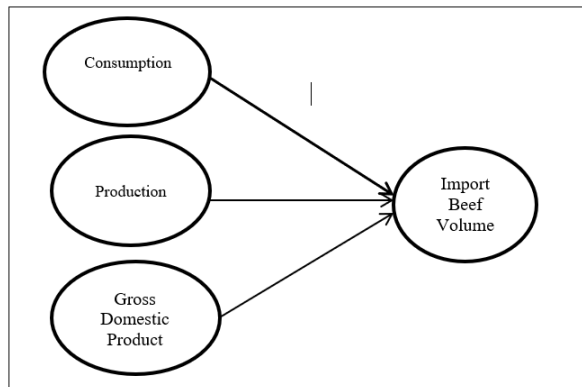
Ha2: Beef production influences the volume of beef import from Australia

Effect of GDP on Beef Import

An increase in national income (GDP) will increase the purchasing power which can increase the preference of consumers to consume imported goods. According to Hairani (2014) increasing GDP per capita of the importing country will increase the the country's consumption, thus the demand for import will also increase. It is also

also believed in the theory of Adam Smith that income will influence import, the higher the income, the more a country will import. Therefore, GDP in this study is considered as a factor affecting import. Thus, the following hypothesis is obtained.

Ha3: Gross domestic product influences the volume of beef import from Australia



Factors Affecting Beef Volume Imported From Australia

Figure 4.
Theoretical Frame Work

METHOD

The population used in this research is data of beef import by Indonesia in period of 2010-2019. In this research, a sample is chosen after a certain characteristic. The characteristics are beef import data of Indonesia from Australia, data of Indonesia’s beef consumption, data of Indonesia’s beef production, and data of Indonesia's gross domestic product in period of 2010-2019. Total sample in this study is n=40.

The type of data used in this research is secondary data. The data analysis method used in this study is multiple linear regression analysis, classical assumption test consisting of normality test, heteroscedasticity test, multicollinearity test, autocorrelation test, and linearity test and Goodness of Fit test.

Uma Sekaran in Sugiyono (2019) stated that theoretical framework is a conceptual model of how the theory relates to the various factors that have been identified as important issues.

RESULT AND DISCUSSION

Descriptive Statistics

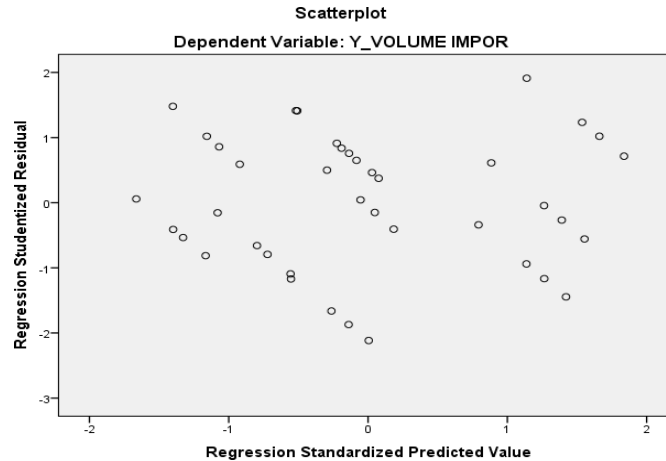
Descriptive statistics explain the distribution of data collected in the research. Data is processed and classified into minimum values, maximum values, mean values, and standard deviation of each variable defined in this study.

	N	Minimum	Maximum	Mean	Std. Deviation
Consumption	40	0.06525	0.11725	0.0977505	0.0188494
Production	40	109087.5	129621	123682.85	5487.2336
GDP	40	1642356.3	2818721.5	2207629.1125	331273.83153
Beef Import	40	7320.75	31928.75	17704.775	7328.42441
Valid N (listwise)	40				

Table 2.
Variable Descriptive Statistics

The table shows the number of data (N) is 40 which is a time series data collected from 2010 to 2019. The consumption variable has the lowest value at 0.06525 on 2013 to 2014; the highest is 0,11725 on 2017 to 2019; with average value of 0.0977505; and standard deviation at 0.0188494. On the other hand, the production variable has the lowest value at 109087.5 on 2010; the highest is 129621 on 2016; with average value of 123682,85; and standard deviation at 5487.2336. Meanwhile, the lowest value of GDP is 1642356.3 on 2010; the highest is 2818721.5 on 2019; with average value of 2207629.1125; and standard deviation at 331273.83153. The beef import variable has the lowest value at 7320.75 on 2012; the highest is 31928.75 on 2019; with average value of 17704.7750; and standard deviation at 7328.42441.;

Figure 5.
Scatter Plot



Classical Assumption Test

Normality Test

One – sample Kolmogorov Smirnov test is carried out to determine the normality of the regression model. We can see from the result that the significance value is 0.843, higher than 0.05. Hence, the assumption of normality was fulfilled according to the statistical test result.

Heteroscedasticity Test

Scatterplot diagram pattern is used to determine the heteroscedasticity of the regression model. Figure explains that the point distribution did not form a particular pattern. The points also spread at random areas both above and below zero (0) on Y-axis. Therefore it can be concluded that heteroscedasticity did not undergo in this analysis. In other words, this model is homoscedasticity. The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residuals of one observation to another. A good regression model is the one with homoscedasticity (Ghozali, 2018)

Solutions to Overcome the Obstacles in Implementing Occupational Health and Safety Management in Facing the COVID-19 Pandemic

Despite facing many obstacles and challenges in implementing the 5M health protocol, the post office is committed to implementing the health protocol properly to protect post office employees and their families as well as postal customers so that there is no cluster spread of the COVID-19 in the Rembang Post Office environment. The head of Rembang Post Office constantly promotes the 5M health protocol and updates information about the development of the COVID-19 pandemic to the post office employees every morning briefing. Employees reprimand, advise, and remind each other if there are other employees who are negligent of the 5M health protocols. The post office clerk reprimand and ask the postal customers or recipients of cash social assistance funds who do not wear masks to go home. Post office staff warns postal customers who shift their seats or those who sit on a seat marked with a cross to remain disciplined in maintaining a safety distance of at least one meter. Post office staff reminds postal Figure explains that the point distribution did not form a particular pattern. The points also spread at random areas both above and below zero (0) on Y-axis. Therefore it can be concluded that heteroscedasticity did not undergo in this analysis. In other words, this model is homoscedasticity

Multicollinearity Test

The multicollinearity test is used to test whether there is a correlation between the independent variables in the regression model. Based on the results obtained the value of tolerance for each variable is greater than 0.10. Therefore, it can be concluded that there is no correlation among independent variable. Moreover, the VIF value of each variable is less than 10 which inferred that there is no multicollinearity among independent variables and each variable is feasible to use in the regression model. The multicollinearity test aims to test whether there is a correlation between the independent variables in the regression model. A good regression model should not have a correlation between independent variables (Ghozali, 2018)

Autocorrelation Test

Durbin-Watson test is applied to determine the autocorrelation of the regression model. Based on the output,

the Durbin Watson value is 1.734. The DWvalue of 1.734 will be compared with the Durbin Watson table using significance value of 5%. The number of independent variables is 3 (k=3) and the number of samples is 32 (n=32). Then the following values will be obtained dL=1.2437 and dU=1.6505. The value of dw located on the between of the value of dU and the value of 4-dU. Therefore, it could be concluded that there is no autocorrelation detected. Autocorrelation occurs because successive observations (time series) are related to each other. This problem arises because the residuals are not independent from one observation to another. A good regression model is a regression that is free from autocorrelation

Model	Coefficients				Adjusted R Square
	Unstandardized	t	Sig.		
	Beta				
1 (Constant)	55796.233	4.613	.000	0.733	
Consumption	6,325.860	.180	.858		
Production	-0.724	-6.648	.000		
Gross Domestic Product	0.023	9.957	.000		

Table 3.
Multiple Linear
Regression Analysis

Based on the SPSS calculation, the following multiple regression equations are obtained as follows:

$$Y = 55,796.233 + 6,325.86 C - 0.724 P + 0,023 GDP$$

The equation above can be explained as follows:

- a. The constant value is 55,796.233 which mean suppose the consumption, production, and GDP are constant, the volume of beef import from Australia will be 55,796.233 ton kg.
- b. The coefficient of consumption is 6,325.86. It shows that every addition of one (kg/capita) of consumption could increase the volume of beef import from Australia by 6,325.86 (ton kg) and vice versa with an assumption if the other variables were constant (ceteris paribus).
- c. The coefficient of production is -0.724. It shows that every addition of one (ton kg) of production could decrease the volume of beef import from Australia by 0.724 (ton kg) and vice versa with an assumption if the other variables were constant (ceteris paribus).
- d. The coefficient of GDP is 0.023. It shows that every addition of one (billion rupiah) of GDP could increase the volume of beef import from Australia by 0.023 (ton kg) and vice versa with an assumption if the other variables were constant (ceteris paribus).

Goodness of Fit Determination

Coefficient (R²)

Determination coefficient is used to measure how much the independent variables contributes to the dependent variable. The coefficient of determination is between 0 and 1. the value of adjusted R square is 0.733. It means that independent variables which were consumption (X1), production (X2), and GDP (X3) have a contribution (influence) of 73.3% to the dependent variable which is the volume of beef import from Australia. Meanwhile, the remaining 26,7% is influenced by other variables that is not observes in this study.

F Test

The F test is a statistical test for additional contributions to the predictive accuracy of variables in research. An insignificant F value indicates a low or insignificant contribution to the research model. The results of the coefficient of determination in this study can be seen the value of Sig. F (0.000) < (0.05), which means that the variables of consumption, production, and GDP can show a significant contribution. Based on these data, it can be concluded that the research model with consumption, production, and GDP variables can be used to predict the variable volume of beef imports from Australia.

T Test

The T test is used to determine how far consumption, production, and GDP influence the volume of beef import from Australia. The result of hypothesis is obtained as follows:

- a. The sign value of production is 0.000 which is less than 0.05 and T-count is -6.648. Therefore, H_0 is rejected and H_a is accepted. Thus, it can be concluded that production has a negative and significant effect toward the volume of beef import from Australia.
- b. The sign value of gross domestic product is 0.000 which is less than 0.05 and T-count is 9.957. Therefore, H_0 is rejected and H_a is accepted. Thus, it can be concluded that gross domestic product has a positive and significant effect toward the volume of beef import from Australia.

The Effect of Consumption on Beef Import

Following the results of the test, consumption is determined to have insignificant on the volume of beef import from Australia. Having the sig value of 0.858 which is higher than 0.05, bring the conclusion of rejecting H_{a1} . This result is in contrary to the previous research and theory. Chisilia & Widanta (2019:210) stated that the volume of import is influenced by consumption because the increase in population is accompanied by increasing needs then the country will fulfill it by importing. The result also does not in line with Hairani (2014:78) which said that imports are influenced by consumption from demand side. Demand exists because humans need to consume the goods they demand. Humans will take various actions to meet their needs with limited resources, one of which is imports. if beef consumption increase or decrease, Indonesia will import beef. This can be caused by various factors. According to Oktaviarosa (2019:6), this can be caused by households that prefer to consume fresh meat rather than frozen or chilled meat. This fresh meat comes from domestic production. Another reason is people replace protein needs by using substitute goods, namely vegetable protein. Vegetable protein comes from plants, such as soybeans and edamame. Soybeans and edamame are much cheaper and healthier than beef. We also can see from the fact, another influencing factor is the unavailability of reliable beef consumption data. Thus the consumption data cannot predict the amount of imports needed in the next period. Nevertheless, the insignificant effect of consumption in this research supports previous research by Oktaviarosa (2019:6) who found that consumption has no significant effect on the volume of beef imports.

The insignificancy might be caused by household consumers who prefer to consuming fresh meat which comes from domestic production. Here is the reason of the insignificant influence; first the consumption variable used in this study is consumption per capita which reflects direct household consumption. The volume of this consumption differs from the overall consumption regarding household consumption, the food industry, and restaurants where the figure will be more appropriate. Household consumption usually consume beef which bought in the market and did not see that it is imported beef or domestically produced. While the overall consumption includes household consumption, the food industry, and restaurants, it is possible that the beef used is the result of domestic production or imported by the factory itself. Second, people replace protein needs by using substitute goods, namely vegetable protein. Vegetable protein comes from plants, such as soybeans and edamame. Soybeans and edamame are much cheaper and healthier than beef. Third, households that prefer to consume fresh meat rather than frozen or chilled meat. This fresh meat comes from domestic production. This might be an explanation to which insignificant effect of consumption on the volume of beef imports.

The Effect of Production on Beef Import

By looking at the t-test result, the significant value of production is 0.000 which is less than 0.05 and T-count is -6.648. The outcome indicates that H_{o2} is rejected and H_{a2} is accepted. Thus, it can be concluded that partially, production has a negative and significant effect toward the volume of beef import from Australia. independent variable is production.

Production is found to be negatively affecting the volume of beef import with coefficients of -0.724 which mean the higher the production will result a decrease the volume of beef import. It shows that every addition of one (ton kg) of production could decrease the volume of beef import from Australia by 0.724 (ton kg).

This result in line with Krugman in Surbakti & Gulo (2017:6), which mentioned that production has a negative effect on the volume of import. Production affects imports due to the limited quality of human resources and technology owned to process available natural resources in order to achieve optimal effectiveness and efficiency in domestic production activities, the existence of goods and services that cannot be produced domestically, and the number or quantity of goods in the country is not sufficient. Domestic production is unable to meet all public demands. Thus the Indonesian government need to import or purchase goods and services from abroad.

The outcome also in line with the theory of Comparative Advantage by David Ricardo. He argues that a country will import if the country can not produce more efficiently. As we can see from the fact, Australia is the largest beef importer in the world, this shows that Australia has the ability to produce beef at a lower price than domestic production. Australia also has good quality beef where Australian cattle are free from foot and mouth disease.

The Effect of Gross Domestic Product on Beef Import

Following the result of the test, the variable of GDP has a significant value of 0.000 which is less than 0.05 and T-count is 9.957. The outcome indicates that H_{o3} is rejected and H_{a3} is accepted. Thus, it can be concluded that GDP has a positive and significant effect toward the volume of beef import from Australia. The results therefore would be an addition of supporting research to the few of existing studies examining performance effect of GDP.

The outcome is in line with Hairani (2014:78) which argues that GDP will have a positive effect on the volume of import. Increasing GDP per capita of the importing country will increase the the country's consumption, thus the demand for import will also increase. As the matter of fact, we can see that Indonesia's increasing GDP is accompanied by the number of beef imports which tend to increase every year.

Further explain is related to Wanuri (2018:138) which mentioned that income will influence import, the higher the income, the more a country will import. The increase in national income (GDP) will increase people's purchasing power to import. Income is economic access which is closely related to access to food consumed. With income, households have the ability to obtain sufficient food for energy and nutritional needs. In addition, income also affects a person's purchasing power. The higher the income, the purchasing power of a person also increases in choosing and buying a variety of foods.

CONCLUSION

Based on the analysis result, there were several conclusions obtained in the study entitled The Influence of Consumption, Production and Gross Domestic Product on the Volume of Beef Imports from Australia that can be described below:

1. From the results of this study, it was found that Production has a positive and significant effect the volume of beef import from Australia. GDP has a positive and significant effect on the volume of beef import from Australia. While consumption has no significant effect on the volume of beef import from Australia.
2. According to multiple linear regression result, the most dominant variable affecting beef imports from Australia is production.

SUGGESTION

This study only uses limited data, namely data on meat imports from Australia between 2010-2019. Further research needs to add more data and other importing countries such as New Zealand, the US and so on.

Import performance antecedent variables only use three independent variables. Further research needs to add variables that affect the performance of imports such as exchange rates, inflation rates and so on.

1. The government should pay more attention to production factors that need to be improved to be able to produce more. Thus, domestic production increases, increased production can contribute to GDP that can be used to facilitate imports of other goods that really cannot be produced in Indonesia.
2. The government should open a wider competition for beef imports from other countries (not only Australia, New Zealand and USA). Thus, people can get cheaper beef.
3. Reduce the demand for imported beef by increase the domestic production as a substitute for imported products by produce better quality and control the increase in domestic production costs.
4. It is hoped for the further research to explore other factors influenced that were not included and discussed in this study and observe the differences in meat import behavior of each ASEAN country from Australia

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