

# ANALYSIS OF THE CAUSALITY RELATIONSHIP BETWEEN ECONOMIC GROWTH AND EXPORTS IN MALUKU PROVINCE

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#### **Abstract**

This study aims to examine the causality relationship between exports and economic growth in Maluku Province and examine the effect of exports on economic growth in Maluku Province. This research is a quantitative descriptive study. The data source used is secondary data from the website of the Central Statistics Agency of Maluku Province. Data collection techniques in literature and document studies. The data analysis techniques used in this study are stationary test, cointegration test, optimum lag test, and granger causality test using the help of the Eviews for Windows application. The results showed that there is a causality relationship between exports and economic growth in Maluku Province with a probability value of y 0.0 902 significant at alpha 10%. And exports have a significant effect on economic growth in Maluku Province with a probability value of 0.0955 significant at alpha 10%.

Keywords: Causality Relationship, Export, Economy Gro.

## INTRODUCTION

Economic development can be said to be a process that causes an increase in the per capita real income of the population accompanied by improvements to the institutional system. Economic development is related to the factors that drive economic development (Tatan, 2018).

Andi (2020) said that one of the benchmarks for the implementation of development is how economic growth is. Economic growth is reflected in the Gross Regional Domestic Product (GRDP). The higher the economic growth of a region, the better economic activity. Economic growth is derived from the growth rate of GRDP on the basis of constant prices. The pace of economic growth will be related to the process of economic development. Economic development cannot be separated from the role of human resources. Human resources or manpower are important factors to support smooth development (Verawati & Heri, 2019).

Economic growth is a description of the economic situation of a region. Sustainable economic growth can increase people's prosperity. Economic growth is characterized by an increase in the number of goods and services (output) produced by a region, in this case Maluku Province. In actual economic activities, economic growth means the fiscal development of the production of goods and services prevailing in a country/region, such as the increase and amount of industrial goods production, infrastructure development, the increase in the number of schools, the increase in the production of the capital goods service sector (Anwar, 2017).





High and sustainable economic growth is a necessary condition for the process of economic development. Economic growth can be used to describe an economy that experiences economic development and achieves a higher level of prosperity and the impact of policies on development that are implemented, especially in the economic field (Eny & Anton, 2020).

Stable economic growth is highly expected by a developing country as well as in Indonesia, because it can overcome the problem of poverty and improve people's welfare. A country that experiences high economic growth, national income will be boosted up so that it can be allocated to finance economic infrastructure development and can have a good effect on other fields.

Economic growth indicates the extent of the performance or ability of a country to produce goods and services at a given period. This ability is due to production factors that always experience an increase in quantity and quality (Syahrur & Etik, 2018). Economic Growth is closely related to the process of improving the products of goods and services in the economic activities of a region. Economic Growth can be studied by the production process, which involves a number of types of products using product facilities and infrastructure. Economic Growth is also defined as an increase in community output caused by more and more production factors used in the production process without any change in the ways or technology itself. Economic Growth Indicators not only regulate the level of output growth in an economy, but also provide an indication of the extent of economic activity that occurs in a regional period.

Table 1GRDP in Maluku Province from 2011-2020

Year	GRDP (IDR)	%
2011	7.831.700.000.000	6.2%
2012	8.615.700.000.000	6.0%
2013	9.546.100.000.000	5.6%
2014	10.569.700.000.000	5.0%
2015	11.526.300.000.000	4.9%
2016	12.401.700.000.000	5.0%
2017	13.589.800.000.000	5.1%
2018	14.838.800.000.000	5.2%
2019	15.832.500.000.000	5.0%
2020	15.534.200.000.000	2.9%

Source: Central Statistics Agency of Maluku Province, 2020

In 2011, economic growth reached a figure of 6.2%. Then it experienced a decline in 2012-2015, this was driven by a decrease in consumption. In 2016 - 2018 economic growth increased. In 2019-2020, economic growth experienced a sharp decline, namely minus 2.1% due to the impact of Covid-19.

There are several factors that affect economic growth. Where one of them is the export rate. Export is a trading activity (Trade) where there is a sale of goods from within the country by





complying with applicable regulations. Export is the total goods and services sold by another country.

The debate about the role of exports on economic growth is one of the interesting topics, especially in development economics. Although it seems to have disappeared in circulation for almost two centuries since the introduction of the theory of foreign trade by Adam Smith in 1776, but into the 1950s until now, the relevance of the theory is again hotly debated.

Table 1 Exports in Maluku Province from 2011-2020

Year	Export (IDR)	%
2011	203.500.000.000	7,14%
2012	190.000.000.000	7,22%
2013	182.600.000.000	7,37%
2014	176.000.000.000	6,68%
2015	150.400.000.000	5,91%
2016	145.200.000.000	4,86%
2017	168.800.000.000	5,80%
2018	180.000.000.000	5,84%
2019	167.700.000.000	6,63%
2020	163.300.000.000	4,83%

Source: Central Statistics Agency of Maluku Province, 2020

The role of exports in economic growth in a country or region is always interesting to study theoretically and empirically. Over the past few decades, many empirical studies have been carried out to examine how much export plays in encouraging economic growth in a country/region or the hypothesis that exports (export growth) will encourage economic growth. This is because good export growth will generate foreign exchange for an area and can then be used to finance development in that area. Because theoretically (hypothetically) it can be said that there is a positive correlation between export growth and economic growth, as well as an increase in people's income, the growth of Gross Regional Domestic Product (GRDP) is on the other hand.

Table 2 Comparison of GRDP and Exports in Maluku Province from 2016-2020

Year	Export (IDR)	GRDP (IDR)
2016	145.200.000.000	12.401.700.000.000
2017	168.800.000.000	13.589.800.000.000
2018	180.000.000.000	14.838.800.000.000
2019	167.700.000.000	15.832.500.000.000
2020	163.300.000.000	15.534.200.000.000

Source: Central Statistics Agency of Maluku Province, 2020

Based on Table 1.3, it is known that the comparison of export values in Maluku in 2016 was 4.86%, and then in 2017 it was 5.80%, while in 2018 it was 5.84%, then in 2019 it was 6.63%







and in 2020 it was 4.83%. Meanwhile, the value of economic growth in Maluku in 2016 was 6.15%, and then in 2017 it was 6.17%, while in 2018 it was 6.21%, then in 2019 it was 5.57% and in 2020 it was 5.32%.

Good economic growth must be supported by the export and import sectors. Regarding the relationship between exports and economic growth, there is a theory of base and resource, namely the export sector that can be a driver in economic development. Exports have a relationship to economic growth; this is because export activities can provide very large foreign exchange. The proportion of exports in Maluku's GRDP based on its use is around 13% - 15% per year. This amount is greater than the proportion of gross regional capital formation. This data picture can provide an indication if Maluku Province has entered the stage of export promotion. In addition to exports, the Classical economic flow puts more emphasis on the provision of labor, capital stocks, and technological changes in the process of economic growth.

In general, a macro review of the economy in a region or country is carried out by looking at the causal relationships of various aggregator economic variables such as economic growth and exports. The causal relationship or also called the causal relationship between exports and economic growth is whether it is exports that affect economic growth or vice versa economic growth that affects exports. This research focuses on the causality relationship between exports and economic growth.

Based on the description above, the author is interested in conducting research on "Analysis of the Causality Relationship between Economic Growth and Exports di Maluku".

## LITERATURE REVIEW

#### **Economic Growth**

Economic growth is one of the indicators of successful development. The higher the economic growth, the higher the welfare of the people. In economic activity means the fiscal development of the production of goods and services prevailing in a country, such as the growth and quantity of production goods, the development of infrastructure, the growth of services and the growth of the production of capital goods.

Economic growth means the fiscal development of the production of goods and services prevailing in a country, such as the increase and amount of industrial goods production, infrastructure development, the increase in the number of schools, the increase in the production of the service sector and the increase in the production of capital goods. To give a rough idea of the economic growth achieved by a country, the measure that is always used is the real national income growth rate achieved (Syahrur and Etik, 2018).





Theories of economic growth include the following:

## a. Classical Growth Theory

According to the views of classical economists there are four factors that influence economic growth, namely: the number of inhabitants, the number of stocks of capital goods, the area of land and natural wealth, as well as the level of technology used. Although aware that economic growth depends on many factors, Classical economists mainly focus on the effect of population growth on economic growth.

In the description of the Classical theory of growth it can be seen that if there is a population shortage the marginal product is higher than the level of per capita income. However, when the population is already more numerous, the law of decreasing additional yields will affect the function of production, that is, marginal production will begin to decline. Therefore, national income and per capita income are becoming slower and slower in growth.

## b. Schumpeter's theory

Schumpeter's theory emphasizes the importance of the role of entrepreneurs in realizing economic growth. In the theory, it is shown that entrepreneurs are a group that will constantly make updates or innovations in economic activities. These innovations include introducing new goods, increasing the efficient way of producing in producing an item, expanding the market for goods to new markets, developing new sources of raw goods and making changes in the organization with the aim of increasing the efficiency of the company's activities. Various innovation activities will require new investments.

According to Schumpeter, the higher the rate of progress of an economy, the more limited the possibilities for innovation. Then economic growth will become slower in its course. In the end, the level of "undeveloped state" or "stationary state" will be reached. In Schumpeter's view the state of undeveloped it is achieved at a high growth rate.

## c. Harrod-Domar Theory

Harrod-Domar's theory aims to explain the conditions that must be met in order for an economy to achieve steady growth in the long term. The Harrod-Domar analysis uses the following sequencing:

- 1). Capital goods have reached full capacity
- 2). Savings are proportional to national income
- 3). Capital-output ratio remains in value
- 4). The economy consists of two sectors

In Harrod-Domar's theory, there is no requirement to reach full capacity if the economy consists of three sectors or four sectors. However, based on the theory above, it can easily be concluded that what needs to apply if aggregate expenditure includes more components, namely including government spending and exports. In such circumstances, the increased capital goods can be fully utilized if:  $AE_1 = C + I \cdot I \cdot G \cdot I + (X - M)_1$  equals  $(I + I)\Delta$ 





Harrod-Domar's theory pays attention to the function of the formation of capital (which the classicists did not pay attention to) and the level of public expenditure (Keynes placed more emphasis on the shortcomings of public expenditure). Harrod-Domar's theory corresponds to Keynes' opinion that the increase in the ability to produce will not in itself create an increase in production from an increase in national income. Harrod-Domar agreed with Keynes that the increase in production and national income was not by income in producing capacity but by an increase in public expenditure. Thus, even if the producing capacity increases, the national income will only increase and economic growth will be achieved if public expenditure increases when compared to the previous period. Based on this view, Harrod-Domar's analysis aims to show the length of society's ability to increase over time (resulting from the formation of modes in the past) will always be fully utilized.

## d. Neo-classical theory of growth

Neo-Classical growth theory looks at supply. According to this theory, developed by Abramowitz and Solow-economic growth depends on the development of factors of production. In the equation, this view can be expressed by the equation:  $\Delta Y = f(K, L, T)\Delta\Delta\Delta$  Where:

 $\Delta$  Y is the economic growth rate

 $\Delta K$  is the growth rate of capital

 $\Delta L$  is the population growth rate

ΔT is the level of technological development

An important contribution of Neo-Classical growth theory is not in pointing out the factors influencing economic growth, but in its contribution to using the theory to conduct empirical investigations in determining the true role of various factors of production in realizing economic growth.

### **Export**

Export is trade by removing goods from within the country to outside the Indonesian customs territory by fulfilling applicable regulations or the process of transporting goods or commodities from one country to another legally, generally in the trade process (Robby, 2015).

David Ricardo, stated that international trade or exports can occur if there are differences in comparative advantages of each country. This comparative advantage can be achieved if a country is able to produce a number of goods with large volumes but at a smaller cost compared to other countries.

Before the two countries can make trade, it must determine how much goods can be exchanged for other goods, that is, it must determine the exchange rate (terms of trade). Exports are the driving force for the acceleration of economic growth, and are an important part that must be considered for the achievement of a country's sustainable economic development. Therefore, a





country's export progress without being hindered by any obstacles will benefit the country (Larasati, 2015).

There are several underlying export issues:

- a. Collection Issues
- b. Land Freight Issues
- c. Rupiah Financing Issues
- d. Sorting and Up-grading Issues (Sorting & Up grading)
- e. Marketing Issues

To encourage exports, the government can take the following paths:

- a. Export diversification
- b. Export subsidies and premiums
- c. Domestic price control.
- d. Devaluation
- e. International agreements

## **Hypothesis**

The hypotheses in this study are as follows:

 $H_1$  = There is a causality relationship between exports and economic growth in Maluku Province.

 $H_2$  = Exports have a significant effect on economic growth in Maluku Province.

#### **METHOD**

The research location in this study is in Maluku Province through the website of the Central Statistics Agency of Maluku Province. The research time starts from 2010-2019. The type of research used in this study is quantitative research. Quantitative research is research whose data is in the form of numbers ranging from data collection, data interpretation, and the appearance of the results (Sugiyono, 2017). Quantitative research is used to research on certain populations or samples; data collection using research instruments, data analysis is quantitative or statistical with the aim of testing predetermined hypotheses.

In this study, the data collected was secondary data. According to Sugiyono (2017), data obtained or obtained indirectly through other people or intermediaries, but the data relies on the category that is the reference of a study. Meanwhile, according to Arikunto (2017), explaining that secondary data is data obtained ready-made and the data has been processed by other parties which is usually obtained in the form of publications. So, secondary data is data that we obtain from the second data source and usually the data is ready-made. The







source of data in this study is from the website of the Central Statistics Agency of Maluku Province.

Data collection techniques used in this research are literature studies and documentation studies. The literature data collection technique is data collection carried out by reading various literature books related to the discussion of this research. Study Documents is a way of collecting data that produces important records related to the problem under study so that complete, valid, and not based on estimates will be obtained by taking data that already exists and is available in document records.

This research was conducted using the time series regression method. Quantitative data analysis and data processing using the eviews program the right model for non-stationary time series data is the Error Correction Model and knows the influence of independent variables on dependent variables in the short and long term. Non-stationary data often show a relationship of uncertainty in the short term, but a tendency for long-term equilibrium relationships to occur (Widarjono, 2013).

#### RESULTS AND DISCUSSION

## **Overview of Maluku Province Region**

Macro economically, Maluku's economic condition tends to improve every year. One of the indicators is an increase in the GRDP value. The economic condition of Maluku Province in the period 2018-2019 is accumulatively estimated to be in the vulnerable 5.88%-6.28% increase from 2018. During this period, the Gross Regional Domestic Product (GRDP) of Maluku Province showed a consistent increase. The agricultural sector is the most dominant sector in contributing to the GRDP of Maluku Province for the past five years, with an average contribution value per year of 32.56%.

The geographical condition of Maluku Province when viewed from the strategic side of business investment opportunities can be predicted that natural resources in the fisheries and marine sectors can be used as business prima donnas in Maluku, in addition to other sectors such as agriculture, the livestock and plantation sub-sector, the trade sector and the tourism sector as well as the service sector which all have a fairly high selling value and business potential.

## The State of Exports in Maluku Province

Conditions regarding exports in Maluku Province during the years 2011-2020 are contained in table 4 about economic development as follows:





**Table 4 Export Data in Maluku Province** 

Year	Export (IDR)	%
2011	203.500.000.000	7,14%
2012	190.000.000.000	7,22%
2013	182.600.000.000	7,37%
2014	176.000.000.000	6,68%
2015	150.400.000.000	5,91%
2016	145.200.000.000	4,86%
2017	168.800.000.000	5,80%
2018	180.000.000.000	5,84%
2019	167.700.000.000	6,63%
2020	163.300.000.000	4,83%

Source: Central Statistics Agency of Maluku Province, 2020

From table 4 regarding exports in Maluku Province during 2011-2020 experienced good conditions or conditions. But there are quite significant increases and decreases and increases again gradually.

## The State of Economic Growth in Maluku Province

Conditions regarding economic growth in Maluku Province during the years 2011-2020 are contained in table 5 regarding economic development as follows:

**Table 5 GRDP Data for Maluku Province** 

Year	GRDP (IDR)	%
2011	7.831.700.000.000	6.2%
2012	8.615.700.000.000	6.0%
2013	9.546.100.000.000	5.6%
2014	10.569.700.000.000	5.0%
2015	11.526.300.000.000	4.9%
2016	12.401.700.000.000	5.0%
2017	13.589.800.000.000	5.1%
2018	14.838.800.000.000	5.2%
2019	15.832.500.000.000	5.0%
2020	15.534.200.000.000	2.9%

Source: Central Statistics Agency of Maluku Province (2020)

From table 4.2 regarding economic growth in Maluku Province during 2011-2020 experiencing good conditions or conditions. But there are quite significant increases and decreases and increases again gradually.





## **Stationary Test**

Stationary testing aims to see whether the mean values and variants from the data do not change symmatically over time, or some experts state the averages and variants are constant (Ekananda, 2015). This study conducted a stationary test with a unit root test. Unit root tests by Dickey Fuller and Phillips-Perron were used to look at the stationarity of time-series data that was corroborated.

**Table 6 Stationary Test Results at the Level** 

Null Hypothesis: EXPOR	RT has a unit root			
Exogenous: Constant				
Bandwidth: 9 (Fixed using Bartlett kernel)				
		Adj. t-Stat	Prob.*	
Phillips-Perron test statis	tics	-2.848745	0.0895	
Test critical values:	-4.420595			
	5% level	-3.259808		
	10% level	-2.771129		
*MacKinnon (1996) one-	sided p-values.			
Null Hypothesis: PDRB 1	has a unit root			
Exogenous: Constant				
Bandwidth: 9 (Fixed usin	g Bartlett kernel)			
		Adj. t-Stat	Prob.*	
Phillips-Perron test statis	-4.975330	0.0049		
Test critical values:	1% level	-4.420595		
	5% level	-3.259808		
	10% level	-2.771129		
*MacKinnon (1996) one-	sided p-values.	•		

Source: Researcher has Processed Data, 2022

Note:

\* = Significant at  $\alpha$ = 10%

\*\* = Significant at  $\alpha$ = 5%

= Significant at  $\alpha$ = 1%

From the results of the level test in table 4.3, it can be known that both variables have been stationers indicated by the Prob value. A statistic smaller than the value of  $\alpha = 10\%$ . That is, all variables used in this study are stationary at a level with a signifier level at  $\alpha = 10\%$ .

## **Cointegration Test**

After it is known that export data and economic growth are stationary, it will then be tested whether there is a long-term balance relationship between export variables and Economic





Growth. This cointegration test aims to determine the long-term balance relationship between export variables and Economic Growth using the Johansen test.

**Table 7 Johansen Cointegration Test Output** 

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistics	Critical Value	Prob.**
None *	0.898602	34.81029	20.26184	0.0003
At most 1 *	0.872874	16.50064	9.164546	0.0018

Source: Researcher has Processed Data, 2022

Trace test indicates 7 cointegrating eqn(s) at the 0.05 level

From the results of the cointegration test above, it can be seen that the trace statistical value is greater than the critical value at alpha 10%. This means that the two variables mentioned above have a long-term relationship. Thus, it can be concluded that exports and Economic Growth in Indonesia have a long-term relationship.

## **Optimum Lag Test**

In conducting a grir causality test, it requires the length of the lag to be used; therefore the determination of optimum lag is very necessary. Rosadi (2012) explained that if the optimum lag is used too short, it cannot explain the comprehensive estimation model, while if the lag entered is too long, it is feared that it will get inefficient estimation results, especially if there is too little data used. Determination of optimum lag using several criteria including LR, FPE, AIC, SC and HQ with the smallest values. Here are the results of the optimum lag test:

**Table 8 Optimum Lag Test Output (VAR Test)** 

Lag	LogL	LR	FPE	AIC	SC	HQ
0	11.85076	NA	0.000293	-2.462691	-2.442830	-2.596641
1	28.87071	21.27493	1.22e-05	-5.717677	-5.658095	-6.119527
2	43.24434	10.78022*	1.30E-06*	-8.311085*	-8.211783*	-8.980836*

<sup>\*</sup>Indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Source: Researcher has Processed Data, 2022



<sup>\*</sup> denotes rejection of the hypothesis at the 0.05 level

<sup>\*\*</sup>MacKinnon-Haug-Michelis (1999) p-values



Note:

- \* = Significant at  $\alpha$ = 10%
- \*\* = Significant at  $\alpha$ = 5%
- = Significant at  $\alpha$ = 1%

Based on the calculation of the optimum lag test results, it can be explained that the smallest LR, FPE, AIC, SC and HQ values are obtained at lag 2. So, it can be concluded that the optimum lag in this study is lag 2.

## **Granger Causality Test**

The Granger Causality test was used to see the causality relationship between the two variables studied, namely causality between Exports and Economic Growth in Maluku. Through the test, it can be seen whether the two variables have a mutually influencing relationship (two-way relationship), have a unidirectional relationship or no relationship at all (do not affect each other). Granger Causality test results can be seen in table 9 below:

**Table 9 Granger Causality Tests** Output

Null Hypothesis:	Obs	F-Statistics	Prob.
<b>EXPORT</b> does not Granger Cause PDRB	8	5.67741	0.0955
PDRB does not Granger Cause EKSPOR		5.95899	0.0902

Source: Researcher's Processed Data, 2022

Note:

- \* = Significant at  $\alpha$ = 10%
- \*\* = Significant at  $\alpha$ = 5%
- = Significant at  $\alpha$ = 1%

Based on the results of the Granger Causality test above, for the variables of Export and Economic Growth in Indonesia, there is a two-way causality relationship, where the level of Economic Growth affects Exports in Indonesia. This can be seen at a probability value of 0.0902 significant at alpha 10%. These results show that there is an influencing relationship between Economic Growth and Exports in Indonesia. From the Granger Causality Test, it is also known that exports affect economic growth in Indonesia, which can be seen from the probability value of 0.0955 significant at alpha 10%. Here is an explanation of the causality test between exports and economic growth:

According to the results of the granger causality test that has been carried out, it can be explained that the export variable significantly affects economic growth with a probability value smaller than 0. 10 or 10%. Meanwhile, the economic growth variable affects exports with a probability value smaller than 0. 10 or 10%. So, it can be concluded that between exports and economic growth has a two-way relationship.







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Then according to Ali's research (2013) confirmed the flow of "the bidirectional causality view", namely the existence of a two-way or mutually influencing relationship between the financial development sector and economic growth. A country that has a good development of the financial sector will encourage a high rate of economic expansion through technological advances and product and service innovation.

It can be said that the Maluku economy has been oriented towards export promotion. However, Maluku export destination countries are still limited to Asian countries plus the United States and Switzerland so there is still a possibility of demand shocks considering that these countries range from the influence of the global economic crisis. To maintain Maluku's export position, it is necessary to diversify the market, which is not only dependent on "traditional" markets such as Japan, Thailand and Malaysia but also needs to explore market expansion in the Middle East and European Union regions. In addition, local business actors need to be directed to be oriented towards the production of export commodities. Because export activities are not only a matter of competition and product competitiveness. But it can also relate to the behavior of the entrepreneur. There is an impression that export activities are complicated work, have high risks and are full of uncertainty. One of the advantages of Maluku export commodities is because they have a high local content and are generally raw material commodities so that they have high competitiveness. But with conditions like this, the added value of Maluku's export commodities is low, and this can be one of the causes of the insignificant influence of exports on economic growth. This research is almost the same as Robby (2015) concluded that it is not yet strong to say international trade forever has a positive and significant influence on economic growth, especially in the long term. Indeed, there are still differences of opinion about the effect of economic openness on economic growth (Harrison and Hanson, 1999).







Maluku's export commodities are dominated by raw material commodities that are dense in natural resources. In addition, Maluku exports have a tendency to not integrate export activities with other sector activities in the economy. Or in other words, the Maluku export commodity does not yet have a strong relationship with other economic sectors. In fact, the role of the agricultural sector in Maluku is still substantial, so dynamizing the agricultural sector through its strength and linkage with other sectors is very necessary. So, exports in the Maluku economy have not become one of the driving forces of economic growth because of the weak spread effect because the relationship between the export sector and other economic sectors has not been strong, so the added value created by Maluku's export commodities is still low. But what is encouraging is its ability to open up employment opportunities by 0.81, meaning that any increase in exports by 1% will increase employment opportunities by 0.81%. So, in this study, the export variable is a macroeconomic variable that can open up very large job opportunities. This can be an indication that export commodities in Maluku are still dominated by small-scale economic activities with relatively small added value.

Economic growth also has a relationship with exports, because increasing economic growth can encourage export activities widely to various countries. This is because if economic growth is high, export activities can provide very large foreign exchange.

#### **CONCLUSION**

There is a causality relationship between exports and economic growth in Maluku Province with a probability value of 0.0902. According to the results of the granger causality test that has been carried out, it can be explained that the export variable significantly affects economic growth with a probability value smaller than 0. 10 or 10%. So, it can be concluded that between exports and economic growth has a two-way relationship. Economic growth affects exports in Maluku Province with a probability value of 0.0955 smaller than 0. 10 or 10%. So, it can be concluded that between exports and economic growth has a two-way relationship.

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