
The Analysis of Tilapia Exports on Regional Original Revenue (ROR) of Dairi Regency, North Sumatra

Ahmad Fadlan¹, Andika Pratama²

Unversity of Pembangunan Panca Budi

Article Info

Corresponding Author:

Ahmad Fadlan,
University of Pembangunan
Panca Budi
Medan, Indonesia

Email:

ahmadfadlan@dosen.pancabudi.ac.id

ABSTRACT

This research was conducted in Dairi Regency, North Sumatra. The purpose of this study was to determine the Export factors on local revenue of the Dairi Regency of North Sumatra. this uses quantitative and qualitative data and the model used is Path Analysis which is operated through the SPSS Version 25.0 for Windows program. In this study, the data collection method used was using a questionnaire with a Likert scale. The number of samples used was 20 tilapia fish entrepreneurs, the data collected by distributing questionnaires. Based on the results of path analysis testing directly Capital, Exchange Rates, Inflation, Exports, Production, Prices directly have a significant and positive effect on Regional Original Income (ROR), the purpose of this study is to analyse the effect of ROR on Capital, exchange rates, inflation, export production of tilapia prices in the Dairi district of North Sumatra. in this study shows that there are only two 2 variables that affect the regional original income of the dairi district, namely exports and selling prices that have a significant effect on the regional original income of the dairi district of North Sumatra. While capital, exchange rates, inflation, production have an insignificant effect on the local revenue of the Dairi district of North Sumatra.

Keywords: export, price, regional original income (ror)

1. INTRODUCTION

Lake Toba is an inland body of water located in North Sumatra Province, the largest lake in Southeast Asia, located 176 kilometres south of Medan City. Lake Toba is also known as an area that has many tourist attractions. This has made several areas in the Lake Toba region as business centres. Fish farming activities are also a very rapidly growing activity on Lake Toba, especially by using the Floating Net Cage (FNC) system or cage culture is a cultivation system in a container in the form of a floating net cage with the help of buoys and placed in waters such as lakes, reservoirs, lagoons, straits, and bays.

Fish farming activities of the Floating Net Cage (FNC) system are known to have begun to develop in 1988 which was first tried by Dharma in Ambarita - Lake Toba. Meanwhile, according to Nontji, the FNC fish farming system has been carried out by the community since 1986. Some types of fish cultivated using FNC systems include carp, tilapia, tilapia, alum fish, catfish, bilih and cork. Fish farming activities with FNC systems are scattered in almost the entire Lake Toba region covering 7 district administrative areas. Most of the people who live in the Lake Toba area earn a living as fishermen by cultivating fish with the FNC system. However, not all cages in the Lake Toba region are owned by the community. Some of them are owned by Foreign Capital Companies (FCC).

The distribution of FNC is made in the Lake Toba area. The FNC cultivation business owned by the people of the Dairi district has a unit size of 5x5 m with a volume of 125 m³/bag. The cages used in this village are all rectangular and made of wood and iron coated with anti-rust material (iron paint). The nets used are

polythelence nets. Buoys are in the form of iron drums or 2333 units. It is said that one unit of FNC means that the number of cage bags is more than one or consists of several bags. There are 2 fish farming systems in FNC in this village, namely polyculture and monoculture farming systems. The people of the Dairi district were originally farmers. The agricultural products of Silahisabungan Sub-district are shallots, bananas to rice and are quite famous agricultural products in the Lake Toba region. The year 1998 was marked as the year of the shift in people's livelihoods as well as the beginning of the development of FNC fish farming in Dairi Regency.

The transition was caused by the results of the FNC fish farming system which was more profitable when compared to farming. The narrowing of land and pests that can no longer be controlled, resulting in agricultural products no longer being relied upon as the main source of livelihood for the local community due to the losses incurred. Thus, there is a mass transition from farming to fish farming FNC system. The advantages of FNC system fish farming include direct use in water bodies so that it does not use more costs to provide land for ponds or floating cages, so production costs can be reduced.

Another advantage is that cages are easy to move, intensification of fish production, and optimisation of feed use fish production, and optimisation of feed use can be done. In FNC fish farming, management and harvesting are easy. This has encouraged the rapid increase in the number of FNC units. The increase in the number of FNC units in Dairi Regency is followed by the high environmental pollution that occurs. Some of the environmental pollution that occurs includes a decrease in the water quality of Lake Toba. Overfeeding activities, accumulation of feed residues and fish faeces in the subsurface layer are the source of the decline in water quality. Another form of environmental pollution that occurs in Silahisabungan sub-district is poor air quality, characterised by an unpleasant smell around the coast of Lake Toba.

The problems caused by FNC system fish farming become problems in the environmental, social, economic fields that are quite complicated. In the economic field, FNC fish farming is considered to have significant results. As evidence of the success of this cultivation is the diversity of the area, the high production of exports and local fish consumption. FNC fish farming has become a solution for the economy of the Dairi Regency community as an area with the densest number of FNC. The Marine and Fisheries Research and Development Agency (2019) in one of the moratorium steps explains that in addition to reducing the number of FNC units, it also recommends regulating the distribution of FNC in the lake.

This is done to reduce the adverse impact on the environment. However, in its implementation, there are still problems in following up the results of the moratorium. The existence of FNC in Dairi Regency still does not pay attention to the things stated in the rules of the Lake Toba area.

The author in responding to these problems feels the need to conduct a spatial study of FNC in Dairi Regency. By looking at how the development of FNC, then looking at the use of Lake Toba space. The use of space is analysed through FNC zoning, FNC distribution areas and the density of fish production in the dairi district. Tilapia export performance is one type of product that is included in the top 10 Indonesian fisheries exports. Central Bureau of Statistics (CBS) records (2021) show that tilapia exports in the last three years have increased, even during the covid 19 pandemic the value of tilapia exports increased by 17.13%. CBS data (2021) recorded that the export volume of tilapia in 2020 reached 12.29 thousand tonnes with an export value of USD 78.44 million.

The 2020 tilapia export flow based on CBS data (2021) shows that in 2020 there were 5 provinces in Indonesia that exported tilapia, namely the provinces of North Sumatra, Central Java, East Java, North Sulawesi and DKI Jakarta. The contribution of tilapia export value from the five provinces is 91.66%, 8.29%, 0.04%, 0.004% and 0.0001% respectively.

Based on this, it can be seen that North Sumatra province is the largest province exporting tilapia from Indonesia. CBS records (2021) show that the export volume of tilapia products from North Sumatra is mostly sent to the USA (51.29%), Canada (14.63%) and Taiwan (11.73%). The export volume of tilapia from Central Java province is mostly sent to USA (58.75%) and Netherland (23.54%). The export volume of tilapia from East Java was 100% exported to South Korea. Tilapia export volume from North Sulawesi province was 100% exported to Japan. The export volume of tilapia from DKI Jakarta province is 100% exported to the USA. Suhana (2020) stated that tilapia is one of the aquaculture products that is widely exported to the USA. The

consumption level of tilapia is the fourth highest after shrimp, salmon and tuna. The USA tilapia consumption rate in 2017 reached 1.08 pounds per capital.

The author in responding to these problems feels the need to conduct an in-depth study of FNC in the Dairi regency. By looking at how the development of FNC, then looking at the use of Lake Toba space. The use of space is analysed through FNC zoning, FNC distribution areas and the density of fish production in Dairi regency. Export performance of tilapia which is one type of product that is included in the top 10 Indonesian fisheries exports. Based on these problems, researchers put forward an idea that aims to examine and analyse the effect of tilapia exports on community and regional income.

2. LITERATUR REVIEW

a. Regional Original Revenue (ROR)

Sources of Regional Original Revenue consist of regional taxes, regional levies, results of management of separated regional assets and other legitimate ROR (Article 6 Paragraph 1). Where sources of ROR must continue to be explored to be used as financing routine expenditures and development expenditures and the development of a region. According to Mardiasmo (2002) Regional Original Revenue (ROR) is a revenue that shows a region's ability to collect sources of funds to finance routine regional activities and regional development.

The definition of ROR according to Law No. 28 of 2009 is a regional financial source extracted from the relevant regional area consisting of the results of regional taxes, regional levies, the results of the management of separated regional assets and other legitimate income. ROR is one component of regional revenue sources in addition to the receipt of transfer funds, and other legitimate revenues (Halim, 2016). Article 6 of Law No. 33 of 2004 paragraphs 1 and 2 states that ROR comes from: According to Law No. 34 of 2000 local taxes are defined as mandatory contributions made by individuals or entities to the region without balanced direct rewards that can finance the administration of local government and regional development. According to Law No 28 of 2009 concerning local taxes. Local taxes, among others, come from the tax revenue of hotels, restaurants, entertainment, street lighting, billboards, and class c.

b. Capital

Capital is the funds used to finance the procurement of assets and operations of the company. Capital consists of the items on the right-hand side of the balance sheet, namely debt, common stock, preferred stock and retained earnings. Capital, on the other hand, consists of equity and foreign capital. Capital can be used for two things, first for investment purposes, meaning that capital is used to purchase or finance fixed assets and is long-term in nature that can be used repeatedly. Second, capital used to finance working capital, which is capital used for short-term financing, such as purchasing raw materials, paying salaries and wages and operational costs.

The balance between all foreign capital and own capital is called the financial structure, and the balance between foreign capital and long-term own capital will form the capital structure (Atmaja, 2003). From the above understanding, it can be concluded that capital is used as an important thing in the activities of a production in a company. Capital can come from own capital, foreign capital or a combination of own capital and foreign capital called the financial structure.

c. Exchange Rate

The exchange rate is defined as the value of a currency against another currency. Meanwhile, Krugman explains the exchange rate as the price of a currency measured or expressed in another currency. another currency. According to Paul Krugman and Obstfeld, exchange rate changes can be divided into two, namely depreciation and appreciation.

Depreciation is a decrease in the value of the domestic currency against foreign currencies, while appreciation is an increase in the value of the domestic currency against foreign currencies. If other conditions remain (*ceteris paribus*), then the depreciation of a country's currency makes the price of the country's goods

cheaper for foreigners while the price of foreign goods becomes more expensive for foreigners. Conversely, the appreciation of a country's currency causes the price of the country's goods to become expensive for foreign parties while the price of foreign goods becomes cheaper for domestic parties. There are two definitions of exchange rates, namely nominal exchange rates and real exchange rates.

The nominal exchange rate is the relative price of currencies between two countries. If the exchange rate of the Rupiah against the USD is IDR 8,500 per USD, then we can exchange 1USD for IDR 8,500 in the foreign exchange market. While the real exchange rate is the relative price of a good between two countries. Thus the real exchange rate shows an exchange rate of goods in one country with other countries. The real exchange rate is often referred to as the term of trade. Generally, relative exchange rate movements can be caused by several fundamental and non-fundamental factors. Fundamental factors include changes in macroeconomic variables such as inflation rate, economic growth and changes in trade balance.

d. Inflation

Samuelson (2001) defines inflation as a situation where there is an increase in the general price level, both of goods, services and factors of production. The definition indicates a weakening of purchasing power followed by a decline in the real (intrinsic) value of a country's currency. While another definition asserts that inflation occurs when there is a disequilibrium between aggregate demand and supply, i.e. aggregate demand is greater than aggregate supply.

In this case, the general price level reflects the relationship between the flow of goods or services and the flow of money. If the flow of goods is greater than the flow of money, deflation will occur, otherwise if the flow of money is greater than the flow of goods, the price level will rise and inflation will occur.

In general, economists conclude that inflation, which causes a decrease in the purchasing power of the value of money against goods and services, is determined by the elasticity of demand and supply for goods and services. Other factors that also determine fluctuations in the general price level include government policies regarding the price level, namely by holding price controls, providing subsidies to consumers and so on.

e. Export

Export activity is a system of trade by removing goods from the country out of the country by fulfilling the applicable regulations. Exports are the total goods and services sold by a country to another country, including goods, insurance, and services in a given year. Exports are one sector of the economy that plays an important role through the expansion of markets between several countries, where it can expand in an industry, thus encouraging in other industries, further encouraging other sectors of the economy.

Exports are one of the sectors of the economy that plays an important role in the expansion of the industrial sector market will encourage other industrial sectors and the economy (Meier, 1996). The conclusion is that exports are very influential on the rupiah exchange rate which results in the rupiah exchange rate weakening or strengthening. The role of the export sector, among others:

1. Expanding the market across the ocean for certain goods, as emphasised by classical economists, an industry can grow rapidly if the industry can sell its products across the ocean rather than only in a narrow domestic market.
2. Exports create new effective demand. As a result, goods in the domestic market seek innovations aimed at increasing productivity.
3. The expansion of export activities facilitates development, as certain industries grow without requiring as much investment in social capital as would be required if the goods were to be sold domestically, for example because of the narrowness of the domestic market due to low real income levels or inadequate transport links.

f. Production Process

According to Assauri (2011), the production process is a way, method and technique to create or increase the usefulness of a good or service by using existing resources (labour, machinery, materials, funds). The production process is the most important form of activity in the implementation of production in a company. This is because the production process is a way, method or technique of how the activities of adding benefits or creating benefits are carried out. The nature of this process is processing, namely processing raw materials and auxiliary materials manually or by using equipment. So as to produce a product whose value is more than the original goods. So, this process is also an activity of combining various factors of production to create something useful for consumers. So that those of you who are in the business world, it is mandatory to understand the stages of the process in producing the right goods or services. So that the production you do is in accordance with the expectations and needs so as not to experience failure.

g. Price

Price is an element of the marketing mix that can generate revenue through sales. Therefore, companies must be able to set the price of their products properly and appropriately so that consumers are interested and willing to buy the products offered so that the company makes a profit. In addition, the price offered can also be a factor for each consumer to make a benchmark comparison.

According to (Kotler and Keller, 2016) Stating that price is an element in the marketing mix that not only determines the probability but also as a signal to communicate the value proposal of a product. Price is a monetary or other measure that is exchanged in order to obtain ownership rights or use of a good or service. And price is the only element of the marketing mix that provides income or revenue for the company in other marketing mix elements.

h. Hypothesis

The hypotheses that can be concluded in this study, are:

H1: Does capital have a positive and significant effect on local revenue through revenue as an intervening variable in the districts of North Sumatra?

H2: Does the exchange rate have a positive and significant effect on local revenue through the exchange rate as an intervening variable in the districts of North Sumatra?

H3: Does inflation have a positive and significant effect on local revenue through price increases as an intervening variable in the districts of North Sumatra?

H4: Do exports have a positive and significant effect on local revenue through foreign sales as an intervening variable in the districts of North Sumatra?

H5: Does production have a positive and significant effect on local revenue through products and services as an intervening variable in the districts of North Sumatra?

H6: Does price have a positive and significant effect on local revenue through selling value as an intervening variable in the districts of North Sumatra?

3. RESEARCH METHOD

This research approach is Mixed Method, which is research that aims to determine the degree or relationship and pattern or form of influence between two or more variables, where with this research a theory will be built that functions to explain, predict and control a symptom (Rusiadi, 2015).

This research uses qualitative research. Qualitative research is descriptive research and tends to use analysis. Process and meaning are more emphasised in qualitative research. The theoretical basis is used as a guide so that the focus of the research matches the facts in the field. This research is an analysis of the impact of the benefits of tilapia exports on the local revenue of the Dairi Regency.

The population in this study were people who exported tilapia in Dairi Regency, North Sumatra Province. The sample in this study was the revenue earned from tilapia exports and Regional Original Revenue (ROR). This research uses primary data and secondary data in analysing tilapia exports. Primary data is data obtained from observations and interviews conducted by researchers in the Dairi Regency area while secondary data is data obtained from private and government agencies.

In addition, other data or information is obtained through literature studies or literature studies and documentation studies. The data collected will be compiled and sorted according to the needs required by the researcher. The data will be presented in tabular form to make it easier to read and understand the data and information found. This research uses primary data and secondary data. Primary data can be obtained through observation, literature study and documentation study.

The data was analysed with several formulas to find several objectives, including:

1. Effect of Capital, Exchange Rate and Inflation on Tilapia Export
To determine the effect of capital, exchange rates, and inflation on tilapia exports, researchers used a statistical regression model. Regression is a statistical method used to measure the relationship between one or more independent variables and the dependent variable. In this case, the dependent variable is tilapia exports, while the independent variables are capital, exchange rates, and inflation.
2. Analysis of Tilapia Export Value
The first step taken to analyse the effect of tilapia exports on Regional Original Revenue (ROR) is to know the value of tilapia exports, especially in the Dairi Regency area. This is done in order to make it easier to understand the contribution of tilapia exports to the ROR of the region.
3. Analysis of the Contribution of Tilapia Exports to Regional Original Revenue (ROR) The results of the calculation of the value of tilapia exports will be processed again with the the purpose of assessing or evaluating the effect or contribution of tilapia exports to the finances of Dairi Regency.
4. Analysis of Tilapia Export Growth
Analysis of the growth of tilapia exports is intended to determine the growth or development of tilapia exports from the previous year to the present.
5. Export Multiplier Effect Analysis
To determine the size or nominal amount of Regional Original Revenue (ROR) with and without tilapia exports. This formula is used to calculate the difference in total local revenue (ROR) with and without tilapia exports. This helps in identifying the multiplier effect of tilapia exports on the regional economy.
6. Correlation Test Between Tilapia Export Volume and Regional Original Revenue (ROR)
To analyse the correlation between the volume of tilapia exports and Regional Own Revenue (ROR).

4. RESULTS AND ANALYSIS

The reserach results were drawn, as follow:

a. The Effect of Capital, Exchange Rates and Inflation on Tilapia Exports

To determine the effect of capital, exchange rates and inflation on tilapia exports in Dairi Regency, researchers collected data through a research questionnaire addressed to research samples. In calculating the effect of capital, exchange rates and inflation, researchers took data from 10 samples who were people who exported tilapia in Dairi Regency. The simple linear regression model for tilapia export data, capital, exchange rates, and inflation is:

$$\text{Tilapia Export} \approx 8.4183 - 0.0749 \times \text{Capital} - 0.0333 \times \text{Inflation} \quad \text{Tilapia Export} \approx 8.4183 - 0.0749 \times \text{Capital} - 0.0333 \times \text{Inflation}$$

Based on the above calculation results, we have a simple linear regression model to estimate tilapia exports based on capital and inflation rates. The regression coefficients (β_1 and β_3) show the relationship between tilapia exports and capital and inflation. In this model, we can see that there is a negative relationship between tilapia exports and capital and inflation. This means that the higher the capital or inflation, the lower tilapia exports tend to be.

b. Tilapia Export Value Analysis

Information obtained from observations and interviews from several resource persons and the local community, the price of tilapia in the market is IDR 20,000/kg. The price of tilapia when exported has increased to a total of IDR 30,000 per half kg. This price includes the cost of packaging, quality control and others. So the total price for 1 kg of export tilapia is IDR 60,000 per year from 2020 to 2022. Meanwhile, from 2013 to 2019, the export sales price of tilapia continued to change from a price of IDR 45,000.00/kg (in 2013)

to IDR 60,000.00/kg (in 2019). The data obtained from the results of interviews and observations are the total shipments obtained per year 2013 to 2022 continues to change in accordance with the demand for exports received from various foreign countries. export requests received from various foreign countries.

Tilapia export income or value obtained on a net basis was valued at IDR 3,546,000.00 per year 2013 and in 2014 at IDR 6,648,750.00. The value of tilapia exports obtained in 2015 reached a nominal value of IDR 7,387,500.00 and in 2016 reached a nominal value of IDR 7,387,500.00. The income obtained from tilapia exports in 2017 and 2018 reached IDR 9,850,00, and in 2019 reached IDR 14,775,000. The net export value of tilapia obtained by Dairi Regency in 2020 was IDR 17,730,000.00. The export value obtained in 2021 was IDR 5,910,000. The drastic decline experienced in 2021 was caused by the Covid-19 pandemic which resulted in the tilapia export process experiencing a decline in demand. The Covid-19 pandemic caused a massive decline in tilapia exports abroad by up to 90%. In 2022, tilapia exports increased to a nominal value of IDR 23,640,000.00. The comparison of the value of tilapia exports per year can be seen in the diagram below:

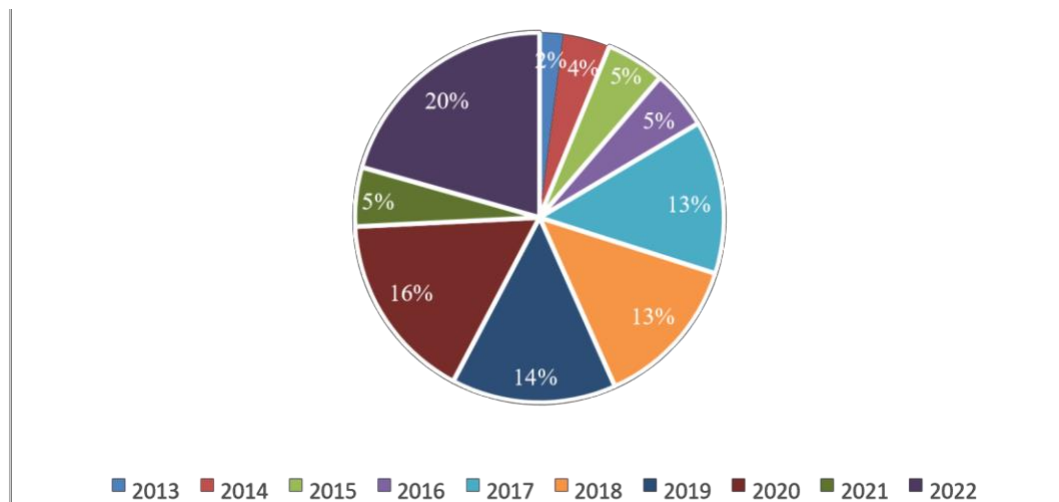


Figure 1. The comparison of the value of tilapia exports per year

c. The Analysis of the Contribution of Tilapia Exports on ROR

The analysis of the contribution of tilapia exports is intended to see and observe the effect of revenue generated from exports on the Regional Original Revenue (ROR) of Dairi Regency. This analysis will assist in evacuating the impact of the tilapia export trade on the revenue that can be obtained by the region revenue that can be obtained by the region. The results of the analysis of the contribution of value fish exports to ROR are:

Table 4.3. Tilapia Export Contribution to ROR

Export Year	Export Value	ROR Total	Export Contribution
2013	354.6000	29.933.428	11%
2014	664.8750	53.525.000	12%
2015	738.7500	58.791.848	12%
2016	7.387.500	68.003.000	10%
2017	9.850.000	128.489.000	7%
2018	9.850.000	73.906.000	13%
2019	14.775.000	74.360.000	19%
2020	17.730.000	86.204.500	20%
2021	5.910.000	73.036.000	8%
2022	23.640.000	86.350.000	27%

Based on the results of the analysis of export contribution to ROR presented in the table, we can conclude that the contribution of tilapia exports to ROR in 2013 was 11%. In 2014 and 2015, the contribution of tilapia exports reached the same figure of 12% of the total ROR. In 2016, tilapia exports contributed 10% and in 2017 it was 7%. In 2018, tilapia exports contributed 13% and in 2019 contributed 19%. In 2020, tilapia exports contributed 20% of Dairi Regency's Regional Original Revenue (ROR). In 2021, tilapia exports experienced a decline after the Covid-19 pandemic so that it only contributed 8% of the total ROR of Dairi Regency. In 2022, tilapia exports increased again so that it could contribute 27% of the total ROR of Dairi Regency.

d. Tilapia Export Growth Analysis

Tilapia export growth analysis aims to measure the comparison of the percentage of export sales from the previous year to the year after. This is done for trends in tilapia exports abroad and their impact on ROR each year.

Tilapia export growth from 2013 to 2020 has never decreased and continues to experience a gradual increase. This is because the demand for tilapia continues to increase and the community's response is also enthusiastic in fulfilling the demand for tilapia exports. However, the decline in tilapia exports in 2021 is a very drastic decrease in value. When compared to the income obtained from the previous year, namely 2020 (reaching IDR 17,730,000.00), tilapia exports in 2021 were an incident that affected the growth in the value of tilapia exports in Dairi Regency (only obtaining IDR 5,910,000.00). This decline was caused by external factors, namely the spread of the corona virus in various parts of the world. The Covid pandemic that hit almost all parts of the world certainly affected the interest in buying tilapia exports from foreign countries to Indonesia, especially North Sumatra. This pandemic has caused a massive decline. In 2022, the implementation of new normal and normalisation carried out by various countries in various parts of the world had a positive impact on Dairi Regency's tilapia exports. Tilapia export orders again experienced a large increase to reach IDR 23,640,000.00 in one year.

e. Analysis of the Export Multiplier Effect

The export multiplier effect is intended to determine and understand the effect of tilapia export sales on the ROR of Dairi Regency. Analysis of the multiplier effect of tilapia exports can be seen in the following table:

Table 2. The Multiplier Effect Analysis of Tilapia Exports

Export Year	Export Value	Total ROR with Export	Total ROR without Export	Multiplier Effect
2013	3.546.000	29.933.428	26.387.428	3.546.000
2014	6.648.750	53.525.000	46.876.250	6.648.750
2015	7.387.500	58.791.848	51.404.348	7.387.500
2016	7.387.500	68.003.000	60.615.500	7.387.500
2017	9.850.000	128.489.000	118.639.000	9.850.000
2018	9.850.000	73.906.000	64.056.000	9.850.000
2019	14.775.000	74.360.000	59.585.000	14.775.000
2020	17.730.000	86.204.500	68.474.500	17.730.000
2021	5.910.000	73.036.000	67.126.000	5.910.000
2022	23.640.000	86.350.000	62.710.000	23.640.000

Based on the table, the total ROR that may be obtained by Dairi Regency if we eliminate the revenue obtained from tilapia exports is IDR 26,387,428.00 in 2013 and IDR 46,876,250.00 in 2014. In 2015, the total ROR without tilapia export revenue was IDR 51,404,348.00 and in 2016 it was IDR 60,615,500.00. The ROR obtained by Dairi Regency in 2017, 2018 and 2019 respectively without income from tilapia exports was IDR 118,639,000.00, IDR 64,056,000.00 and IDR 59,585,000.00. In 2020, the ROR obtained without tilapia export revenue was IDR 68,474,500.00 in 2020. In 2021, the total ROR obtained without tilapia export revenue was IDR 67,126,000.00 and in 2022 obtained ROR without export revenue of IDR 62,710,000.00.

f. The Correlation Test Between Tilapia Export Volume and ROR

The correlation test between the volume of tilapia exports and ROR aims to determine whether the revenue from the tilapia export trade has an absolute impact on the Regional Original Revenue (ROR) of Dairi Regency. The absolute impact in question is that when tilapia exports increase, the ROR also increases in line with the increase in tilapia exports and vice versa.

The results of testing the correlation between the volume of tilapia exports and Regional Original Revenue (ROR) show that the correlation between the two variables is 0. This indicates that the volume of tilapia exports does not affect the total amount of ROR absolutely because a value close to 0 indicates a weak correlation or no correlation between the two variables. 0 indicates a weak correlation or no correlation between the two variables. The conclusion is that the volume of tilapia exports contributed to the ROR of Dairi Regency but not solely and significantly.

The results also show that in 2022, tilapia exports play a role in allocating ROR in a percentage of 27%. The rest is filled by sources from other livelihoods such as agriculture, plantations, regional specialities and many more. These variables make up the percentage outside of tilapia exports, the total of which is allocated to Regional Original Revenue (ROR). So, although the value of export sales has decreased, the ROR of Dairi Regency does not necessarily decrease because the main income of Dairi Regency does not only come from tilapia exports.

Based on the results of the calculation of tilapia exports to ROR, it can be concluded that the value of tilapia exports affects the total amount of Regional Original Revenue (ROR) obtained by Dairi Regency. This is shown in the calculation of the contribution of export value to ROR, each year showing that the value of tilapia exports contributes to the ROR obtained. Based on the results of the calculation of the exchange rate affects tilapia exports because the currency exchange rate is very influential because the exchange rate level is still high due to the level of demand for tilapia exports which has increased in the last 5 years in the Dairi Regency of North Sumatra based on the results of the calculation of capital is very influential on exports because capital is very important because the level of volume of tilapia exports depends on the initial capital of the business because the greater the capital the more tilapia exports that affect the original income of the Dairi Regency of North Sumatra based on the results of the calculation of inflation is very influential on tilapia exports where the level of price increases is influenced by the inflation rate every year where the selling price of tilapia which rises every year causes the growth of local revenue of the dairi regency of North Sumatra based on the results of the calculation of production affects tilapia exports where the high level of export demand causes tilapia production in the dairi regency of North Sumatra every year to increase the level of demand causing local revenue to experience growth based on the results of the calculation of prices affects tilapia exports where the level of export prices is far compared to selling in the regions which causes the price level to be very influential on local revenue. The first thing to do will analyse the export value of tilapia in Dairi Regency. The results showed that in 2013, the export value of tilapia in Dairi Regency reached IDR 3,546,000.00. Then in 2014 and 2015, each obtained an export value of IDR 6,648,750.00 and IDR 7,387,000.00. In 2016, 2017, 2018 and 2019 obtained revenues of IDR 7,387,000.00, IDR 9,850,000.00, IDR 9,850,000.00 and IDR 14,775,000.00. In 2020, the export value of tilapia in Dairi Regency reached IDR 17,730,000.00. Then in the year 2021, there was a significant decline which caused the income from tilapia exports to drop dramatically to IDR 5,910,000.00. This significant decrease in export value was caused by the Covid- 19 pandemic that hit Indonesia. 19 pandemic that hit Indonesia. As a result, the international export process has been hampered because many people are afraid of being exposed to the Corona virus which could possibly come from a foreign country. The pandemic has caused the tilapia export process in Dairi Regency to decline. In 2022, the export value of tilapia in Dairi Regency again experienced a high increase, the revenue obtained from tilapia exports reached IDR 23,640,000.00.

Data on the value of fish exports obtained from the results of the analysis in the first stage will be used to determine the contribution of the value of tilapia exports in Dairi Regency to the ROR of the region. The results of the analysis show that tilapia exports made in 2013, 2014 and 2015 reached 11%, 12% and 12%. The years 2016, 2017, 2018 and 2019 contributed to the ROR by 10%, 7%, 13% and 19%. In 2020, it contributed 20% of the total Regional Original Revenue (ROR) of Dairi Regency. In 2021, the decline in the value of tilapia exports caused by the Covid pandemic also affected the contribution of tilapia exports to ROR. The contribution made by tilapia exports to the ROR of Dairi Regency was only 8%. In 2022, the value of tilapia exports increased again, which had a positive impact on the community and contributed more to fulfilling the

region's ROR. The increasing value of tilapia exports had a positive impact in the form of a contribution to the ROR which reached 27%.

The contribution of tilapia exports certainly has a positive impact on the ROR of Dairi Regency. Researchers conducted an analysis to find out and explain the growth of tilapia exports from year to year (2020-2022). The results of the analysis of tilapia export growth show that from 2020 to 2021, tilapia exports experienced a significant decline, reaching -66%. This was caused by the Covid pandemic. From 2021 to 2022, tilapia exports increased again in line with the implementation of the new normal by the government. Tilapia export growth reached 60% from the previous year.

The next analysis conducted was the analysis of the multiplier effect of tilapia exports. This analysis was conducted to determine the total ROR with the contribution of tilapia exports and the total ROR without the contribution of tilapia exports. The results of the analysis showed that tilapia exports contributed to the ROR of Dairi Regency. If the ROR is calculated by eliminating the income obtained from tilapia exports, the total ROR obtained is IDR 26,387,428.00 (in 2013, from IDR 29,933,428.00), IDR 46,876,250.00 (in 2014, from IDR 53,525,000.00), IDR 51,404,348.00 (in 2015, from IDR 58,791,848.00), IDR 46,876,250.00 (in 2014, from IDR 53,525,000.00), IDR 51,404,348.00 (in 2015, from IDR 58,791,848.00), 791,848.00, IDR 60,615,500.00 (in 2016, from IDR 68,003,000.00), IDR 118,639,000.00 (in 2017, from IDR 128,489,000.00), IDR 64,056,000.00 (in 2018, from IDR 73,960,000), IDR 59,585. 000.00 (2019, from IDR 74,360,000.00), IDR 68,480,500.00 (2020, from IDR 86,204,500.00), IDR 67,126,000.00 (2021, from IDR 73,036,000.00) and IDR 62,710,000.00 (2022, from IDR 86,350,000.00).

The last step taken is the correlation test between the volume of tilapia exports and the ROR of Dairi Regency. This correlation test was conducted to determine the relationship between the export volume and the ROR obtained. The correlation test result is 0, which indicates that the correlation is weak. The volume of tilapia exports does not contribute absolutely to the ROR of the region. If tilapia exports decrease, the ROR will not necessarily decrease and vice versa.

In 2022, tilapia exports contributed 27%, so it can be concluded that the ROR of Dairi Regency does not only come from tilapia exports, but also from agriculture, plantations, livestock, processing and many more. The number of indicators indicates that tilapia exports do not play a significant role in increasing or decreasing the Regional Original Revenue (ROR) of Dairi Regency.

Based on the results of this explanation, it can be concluded that the Initial Hypothesis (H0), namely the value of tilapia exports has an influence on Regional Original Revenue (ROR) of Dairi Regency, is correct.

5. CONCLUSION

Based on the results of the research that has been carried out by researchers, the conclusions that can be obtained are:

1. Capital is needed by the people of the dairi district to start a tilapia farming business in Lake Toba because of the role of the government to provide education and initial business capital in order to increase the original income of the dairi district of North Sumatra.
2. The production of tilapia has an influence on exports and local revenue (ROR). The increasing amount of production provides a high profit or income for Dairi Regency.
3. The export price of tilapia influences the production, revenue and ROR of Dairi Regency. Every few years, the export price of tilapia has increased from IDR 45,000.00 to IDR 60,000.00. The increase in price certainly provides more income from the export of tilapia.
4. Tilapia exports have an influence on ROR. The revenue obtained from tilapia exports contributes to the ROR obtained by Dairi Regency.
5. The exchange rate is very influential on the results of local revenue because the higher the rupiah exchange rate, the greater the local revenue which affects the welfare of the people of the Dairi Regency of North Sumatra.
6. Inflation is very influential on local revenue because the increase in the selling price of export tilapia increases due to price increases which have an impact on the local revenue of the Dairi Regency of North Sumatra.

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