

## Factors Influencing Income Levels Of Fish Traders

**Nina Maksimiliana Ginting**

Department of Agribusiness, Faculty of Agriculture, Musamus University, South Papua,  
Indonesia

Article Info	ABSTRACT
<b>Corresponding Author:</b> Name : <b>Nina Maksimiliana Ginting</b> E-mail: ginting_agribisnis@unmus.ac.id	This research is to look at the factors that influence the level of income of fish traders with the independent variable purchase price, selling price, labor and trading experience and the dependent variable income. The research was conducted at the Afternoon Market and Wamanggu Market. The population in the study were 15 tilapia fish traders. Sampling in this study used the Judgment sampling method. Simultaneously, all independent factors influence the dependent variable. Purchase prices, selling prices, labor and trading experience affect the income of fish traders at the Sore Market and Wamanggu Market. Partially, selling prices and labor have an effect on traders' income, while buying prices and trading experience have no effect on traders' income. <b>Keywords:</b> traders; fish; income

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### INTRODUCTION

Fishery is one of the leading sectors in Indonesia, seen from its geographical location, which is an archipelagic country with large capture fisheries resources (Ahmad Ridha, 2017). The potential for the leading fisheries sector in Indonesia is estimated at 4.4 tons per year, but the production that can be cultivated is only 1.1 million tons per year. Thus, about 30% of Indonesia's fishery potential is utilized, making it possible for fishing businesses to still have opportunities. (David Dwiyahya M. Tuna, et al, 2019).

Papua province is a province that has abundant wealth of fish, seen from the area is a swamp area. Fresh water fish that are commonly found in Papua are gastor fish, mujair fish, tilapia and baung fish. One of the regencies in Papua Province which has abundant fish is Merauke. Where Merauke is a district directly adjacent to Papua New Guinea (land) and Australia (sea). Merauke Regency has swamps and large rivers which irrigate tributaries in the Regency. (Ataman, Merry. 2022)

With so many freshwater fish in Merauke Regency, so many people rely on jobs as freshwater fish catchers. The fish obtained will be sold to collectors who will distribute them to retailers in the market. Selling fish seeks household income from the results of consumer purchases at market demand. (Adeline Norawati Hutapea, 2016) However, fish sellers must also pay attention to planning in making sales according to market demand. The thing that has the most influence on sales is the price, because fish has the characteristics of being easily damaged so it doesn't last long. So, traders must immediately sell the fish they get from the collectors to minimize the losses they get.

One of the most sold fish in the market in Merauke Regency is the tilapia fish. The production of mujair fish, which is mostly in swamps, is a priority prima donna which is sold along market roads in the city, one of which is the Sore Market and Wamanggu Market. Afternoon market and Wamanggu market are markets that operate in the afternoon until late at night. The price of fish sold at the Evening Market and Wamanggu Market tends to be the same

as other traders. During the dry season, fish production is more than the rainy season which causes a difference in price.

## METHODS

This research was conducted at the Evening Market and Wamanggu Market, Merauke City. The selection of this location was purposive with the consideration that Pasar Sore and Pasar Wamanggu are markets where there are many tilapia fish traders. The time for the research to be carried out is in 2022.

Data is a description of circumstances or issues related to place and time which are the basis for decision making. The data used in this study consisted of primary data and secondary data. Primary data is data from direct interviews with respondent farmers using a prepared questionnaire. Secondary data is complementary data that can be obtained from related agencies or institutions such as the Department of Agriculture as well as literature related to this research.

The population in the study were 15 tilapia fish traders. Sampling in this study used the Judgment sampling method. Judgment sampling or consideration sampling is a form of non-random sampling in which the sample is determined by the researcher based on his considerations or experience (Kadir, 2015). So that the sample was determined as many as 15 tilapia fish traders in the Sore Market and Wamanggu Market.

The data analysis technique uses the OLS (Ordinary Least Square) method using the Multiple Linear Regression Estimator Model with SPSS tools, with the following equation model:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + u$$

Where :

Y : Merchant income (Rp/kg)

X1 : Purchase Price (Rp)

X2 : Selling Price (Rp)

X3 : Labor Cost (Rp)

X4 : Trading Experience

B1, ..bn : Regression coefficient that reflects the effect of X on Y

a : The constant is called the intercept coefficient which reflects the influence X against Y

u : Errors that reflect deviations that occur due to a variety of measurements and a variety of conditions

To find out whether the buying price, selling price, labor costs and trading experience simultaneously have a significant or not significant effect on income (Y), the F test is used.

Test Criteria”:

1. If the F-count value > F-table value or sig value <  $\alpha$  (0.05) then the alternative hypothesis (H1) is accepted. It means "Simultaneously X1, X2, ..., Xn has a significant effect on Y"
2. If the F-count value < F-table value or sig value >  $\alpha$  (0.05) then the alternative hypothesis (H1) is rejected. It means "Simultaneously X1, X2, ..., Xn has no significant effect on Y"

$$F_{hit} = \frac{b_1 \cdot JK_{XY}}{\left[ \frac{JK_{YY} - b_1 \cdot JK_{XY}}{(n-2)} \right]}$$

To find out whether the purchase price, selling price, labor costs and trading experience partially or not have a significant effect on income (Y), a t test is used with the following criteria:

Test Criteria:

1. If the t-count value > t-table value or sig value <  $\alpha$  (0.05) then the alternative hypothesis (H1) is accepted. It means "Partially X1, X2,..., Xn has a significant effect on Y"
2. If the t-count value < t-table value or sig value >  $\alpha$  (0.05) then the alternative hypothesis (H1) is rejected. It means "Partially X1, X2,..., Xn has no significant effect on Y"

## RESULTS AND DISCUSSION

### 1. Multiple Linear Regression Analysis

#### a. Determination Coefficient Test

The coefficient of determination (R<sup>2</sup>) is used to measure how far the model's ability to explain variations in the dependent variable. The value of the coefficient of determination that is close to one of the independent variables explains almost all the information needed to predict the dependent variable. The results of the calculation of the coefficient of determination can be seen in Table 1

**Table 1.** Calculation results of the Coefficient of Determination (R<sup>2</sup>)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.880 <sup>a</sup>	.774	.593	5.53822E5

a. Predictors: (Constant), Pengalaman, TK, Harga Beli, Harga Jual,

The analysis of the coefficient of determination test in testing the income factor for fish traders at the Sore Market and Wamanggu Market in Table 1 shows that the R-Square of 0.774 means that 77.4% of the variation in the dependent variable (Y) can be explained by variations in the independent variables, while the rest is 22.6% is explained by other variables not included in the model.

#### a. F test

Simultaneous test (Test F) is a test that can be used to determine the significance of the contribution between the independent variables to the dependent variable. To find out the results of the F test in this study can be seen in Table 2.

**Table 2.** F Test Calculation Results

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.250E12	4	1.312E12	4.279	.000 <sup>a</sup>
	Residual	1.534E12	5	3.067E11		
	Total	6.783E12	9			

a. Predictors: (Constant), Pengalaman, TK, harga Beli, harga Jual

b. Dependent Variable: Pendapatan

Table 2 shows the effect of the variable purchase price (X1), selling price (X2), labor (X3), trading experience (X4) on trader income (Y) with a significance value of 0.000 which is smaller than the significant level used, namely 0 .05 to 0.000 0.05 so this shows that the independent variables in this study have a significant effect on the dependent variable.

#### b. T test

The t test is used to partially determine the effect of each independent variable, namely purchase price, selling price, labor and trading experience on the dependent variable of traders' income at the Sore Market and Wamanggu Market. The results of the partial test can be seen in Table 3

**Table 3. T. Test Results**  
**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	362670.095	4933312.949		.074	.944
	Harga Beli	-330.077	254.064	-.361	-1.299	.251
	Harga Jual	400.392	125.364	.949	3.194	.024
	TK	-.639	.177	-.140	-3.603	.015
	Pengalaman	-4414.248	25945.113	-.038	-.170	.872

a. Dependent Variable: Pendapatan

Multiple linear regression analysis is used to determine the direction of the relationship between the independent variables and the dependent variable. The regression equation can be seen in Table 3. The results of the coefficient test based on the output of SPSS 17 with four independent variables: purchase price, selling price, labor and trading experience on the dependent variable, namely the income of fish traders at the Sore Market and Wamanggu Market.

$$Y = 362670.095 - 330.077 X_1 + 400.392 X_2 - .639 X_3 - 4414.248 X_4 + e$$

### 1. Purchase Price (X1)

The results of multiple linear regression analysis show that the independent variable purchase price X1 is obtained sig 0.251 where sig (0.251 > 0.05). At the 95% confidence level, this result shows that the independent variable X1, the purchase price has no significant effect on Y, the income of fish traders. With the value of the regression coefficient of the independent variable X1 of -330,077, it means that if there is a decrease in the purchase price of 1%, the income will decrease by -330,077%.

### 2. Selling Price X2

The results of multiple linear regression analysis show that the independent variable selling price X2 is obtained sig 0.024 where (0.024 < 0.05). At the 95% confidence level, this result shows that the independent variable X2 selling price has a significant effect on Y traders' income. With the value of the regression coefficient of the independent variable X2 of 400,392, it means that if the selling price increases by 1%, the income will increase by 400,392%.

### 3. Workforce X3

The results of multiple linear regression analysis show that the independent variable labor X3 is obtained sig 0.015 where (0.015 < 0.05). At the 95% confidence level, this result shows that the independent variable X3 labor has a significant effect on Y traders' income. With the value of the regression coefficient of the independent variable X3 of -.639, it means that if the workforce increases by 1%, income will decrease by -.639%.

### 4. Trading Experience X4

The results of multiple linear regression analysis show that the independent variable trading experience X4 is obtained sig 0.872 (0.872 > 0.05). At the 95% confidence level, this result shows that the independent variable X4 trading experience has no significant effect on Y the income of fish traders at the Sore Market and Wamanggu Market. With the value of the regression coefficient of the independent variable X4 of -4414.248, it means that if there is an addition of trading experience of 1%, income will decrease by -4414.248%.

### a. Data Normality Test

This data normality test was conducted to find out whether in the regression model, the independent variable and the dependent variable have a normal distribution or not. If it has a normal or close to normal distribution, it can be said that the regression is good. The method

used to determine the normality of this data is the normal probability plot to see the distribution of data or points on the diagonal axis on the normal P-plot graph. (Janie, 2013).

### **CONCLUSION**

Simultaneously, all independent factors influence the dependent variable. Purchase prices, selling prices, labor and trading experience affect the income of fish traders at the Sore Market and Wamanggu Market. Partially, selling prices and labor have an effect on traders' income, while buying prices and trading experience have no effect on income staying up late.

### **REFERENCE**

- Adeline Norawati Hutapea. 2016. Faktor - Faktor yang Mempengaruhi Pendapatan Harian Pedagang Ikan di Kefamenanu Kabupaten Timor Tengah Utara. *Agrimor* 1 (1) 13-14
- Ahmad Ridha. 2017. Analisis Faktor-Faktor yang Mempengaruhi Pendapatan Nelayan di Kecamatan Idi Rayeuk. *Jurnal Samudra Ekonomi dan Bisnis*, Vol.8, No.1 Januari 2017
- David Dwiyahya M. Tuna, Yanti Saleh, Amelia Murtisari. 2019. Analisis Pendapatan Nelayan Ikan Mujair di Pesisir Danau Limboto. P-ISSN : 2597 – 7075. E-ISSN : 2541 – 6847.