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Analysis of Factors that Influence Fishermen's Production Results in Prigi Nusantara Fishery Port (Ppn) Watulimo District, Trenggalek District

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A B S T R A C T

One of the economic sectors that contributes to the development of the national economy is the marine and fisheries sector. The fishing industry plays a bigger role during economic downturns, particularly when it comes to earning foreign exchange. Meanwhile, the aim of this research is to find out whether there is an influence of production capital on Product of the fishermen in the Trenggalek Regency's Prigi Village, Watulimo District Secondly, to determine if labor has an impact on the productivity of fishermen in Trenggalek Regency's Prigi Village, Watulimo District. The type of research used is a quantitative descriptive approach, basically emphasizing the statistical processing of data analysis in the form of numerical values. It is clear from the multiple linear regression analysis results that the capital value is 33,939, meaning it shows the direction of a positive or unidirectional relationship between capital and production results. The labor value of Labor -4210,909 shows a negative or unidirectional relationship with production results. Meanwhile, There is a duration of -132,287, indicating a negative or unidirectional relationship with production results.

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INTRODUCTION

One of the economic sectors that contributes to the development of the national economy is the maritime and fisheries sector, particularly in terms of job creation, foreign exchange earnings, and the provision of protein-rich food. The fishing industry plays a bigger role during economic downturns, particularly when it comes to earning foreign exchange. Ironically, though, the government and business community have not given the fisheries sector much thought thus far. This is despite the fact that, with proper management, the sector could contribute significantly to the country's economic growth and reduce poverty among Indonesians, particularly in fishing communities and among fish farmers (Lewar, 2017).

The coast is an area full of marine potential, but basically coastal communities, some of whom make their living are still closely associated with the issue of poverty, which is a traditional coastal phenomenon, as fishermen. Due to the low socio-economic level and welfare of life, in the structure of the fishing community, labor fishermen are the poorest social layer, while the majority of fishermen in Indonesia are labor fishermen. (Ekaningdyah et al., 2005). As a result, initiatives to raise the standard of living for fishing villages have gained prominence in discussions about the development of coastal regions.

In terms of regional potential, the Java Sea is relatively small compared to other regions. However, the fishing fleet in this area is very large. This is due to the relatively high increase in population and so far the fisheries sector has mostly been a flexible employment area to accommodate increasingly high unemployment. As a result, there is excessive exploitation of fisheries resources, resulting in overfishing in most densely populated waters. This is complicated by the facilities and infrastructure of fishing ports and other supporting facilities which are concentrated on the island of Java (Waridin, 2006).

The potential for fisheries and marine resources in East Java is very large. Fisheries activities have a very large role in improving the nutritional value of society, increasing the standard of living for the population, especially fishing communities, as well as for the Indonesian economy. The condition of Indonesia's seas has a huge influence in increasing national income from exports and imports through fisheries activities. Indonesia's territory consists of many islands, so many Indonesian people work as fishermen. One of the absolute needs to advance fishing industry activities and realize programs to improve the welfare of coastal communities is to provide adequate fishing port infrastructure. (Sulistyani Dyah P, 2005).

Trenggalek Regency is one of the regions that provides the largest contribution to fishing results in East Java. One source of foreign exchange for Trenggalek Regency is the fisheries sector. One of the reasons Watulimo's development is comparable to that of other coastal villages on the Trenggalek Regency's coast is the fishermen's reliance on the sea. Where this dependency can ultimately have an impact which is still a phenomenon in Watulimo, even in other coastal villages in Indonesia, namely poverty. High-productivity coastal or marine resources are essentially anticipated to be crucial in

eradicating poverty that surrounds the majority of fishing communities in Indonesia, including in Watulimo village. Because of this, it's important to comprehend the causes of fishermen's poverty in order for these potentially valuable marine resources to truly contribute to economic development through providing labor, increasing PAD (Pendapatan Asli Daerah), increasing foreign exchange and improving the welfare of coastal residents.

THEORETICAL REVIEW

Fisherman

According to (Supandi & Efrianto, 2021), fishermen are people who make a living by actively engaging in fishing activities, either directly (like spreaders and net users) or indirectly (like sailboat helmsmen, motorized fishing boat captains, ship engine experts, fishing boat cooks).

Production Theory

The most widely known production theory is the "Law of Diminishing Returns". David Ricardo presented this theory of production in his book "Principle of Political Economy and Taxation." In the Additional Law of Diminishing Returns, the basic nature of the connection between the amount of labor required to achieve a given level of production and that level of production is explained.

According to the Law of Diminishing Yield Production Theory, "Once total production increases by one unit, it will initially rise faster than other production factors (labor)." But further production will eventually fall off and approach a negative value once it reaches a certain point." According to his theory of production, David Ricardo stated that when we continuously add one unit of input in the same amount, while the other inputs remain constant, then initially there will be additional output that is more than proportional (increasing returns). However, at a certain point, the results we get will actually decrease (diminishing returns).

Factors influencing fishermen's production

a) Production Capital

   According to (Firdausa & Arianti, 2012) capital is all forms of wealth that can be used, directly or indirectly, in production to increase output. To put it more precisely, capital is defined as products manufactured for use in future production processes. The use of capital to promote economic development includes making investments in technical expertise, enhancing health, education, and skills.

b) Labor

   The classical theory of the labor market is not how the labor market functions in reality, according to John Maynard Keynes (1883–1946). Everywhere there are workers, there is some sort of labor union that tries to defend the interests of workers against wage reductions (Anton, 2019). Workers are unavoidably needed for every fishing activity that is carried

out; the number of workers required must be matched to the motorboat's capacity in order to lower fishing costs (more efficiently), and it is hoped that labor income will increase because the additional staff are professional (Sari & Rauf, 2020).

c) Long time at sea

The duration of the trip refers to how long it takes the fisherman to reach his or her fishing target location. This is largely determined by how long the fisherman must spend at sea in order to locate the best location. It is reasonable to assume that the longer fishermen are at sea and the more time they spend searching for fish, the more fish they will catch—though this is dependent on the specific fish they encounter, as there is no guarantee. The time in hours required to obtain the maximum catch ranges from 10 to 17 hours.

METHODOLOGY

It is a quantitative descriptive approach to research, meaning that data analysis in the form of numerical values processed through statistical procedures is the main focus. In this research, the Nusantara Prigi Fishery Harbor, Watulimo District, Trenggalek Regency, was used using fisherman production capital data, then also labor data, as well as fisheries production and production value. The time used for the research was during the period 2016 to 2020. In this research there are two types of variables, namely the independent variable (X) which consists of the capital factor (X1), the labor factor (X2), and the dependent variable, namely fisherman production (Y).

The type of data The secondary data used in this study came from organizations or agencies that are related to this research. According to (Sugiyono, 2016) secondary data is data that comes from sources indirectly to the data collector, either through other parties or through archives. Time series data obtained from related agencies from 2016 to 2020. The information gathered is based on data that pertinent organizations or agencies have published. The Ministry of Maritime Affairs and Fisheries' Central Statistics Agency (BPS) provided the data used in this study (KKP). This study employed multiple linear regression analysis as its data analysis technique.

This study employed multiple regression analysis as the regression analysis method, which is transformed into Natural Logarithms (Ln). Transformations in this research are used to equalize multiple regression calculations.

The model specifications used are:

$$LnY = a + b1LnX1 + b2LnX2 + \ldots\ldots + e$$

and in this research the linear regression equation model is as follows:

Ln = Natural Logarithmic Transformation
Y = Production result (Kg)
a = Constant
x1 = Capital (Rp)

x2 = Labor (Person)
b1,b2 = Independent variable coefficient
e = Confounding variables

If there are differences in the units and magnitudes of the independent variables, the regression equation must be made into a natural logarithm model.

RESULTS

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Kategori	Statistic	df	Sig.	Statistic	df	Sig.
Variabel Penelitian	Modal	.191	10	.200*	.942	10	.572
	Tenaga Kerja	.182	10	.200*	.943	10	.590
	Lama Melaut	.233	10	.133	.896	10	.200
	Hasil Produksi	.145	10	.200*	.962	10	.808

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

It can be seen from the table above that the Sig value of each variable exceeds 0.05.Therefore, the regression values can be concluded to be regularly distributed.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-126543658	67420113.89		-1.877	.110		
	Modal (X1)	-402.786	498.577	-.202	-.808	.450	.427	2.342
	Tenaga Kerja (X2)	12900.137	7269.770	.341	1.774	.126	.720	1.388
	Lama Melaut (X3)	1976.222	664.075	.829	2.976	.025	.343	2.913

a. Dependent Variable: Hasil Produksi (Y)

It is evident from the multicollinearity test results in the above table that each VIF value displays a value of less than 10, so it can be concluded that multicollinearity did not occur in this study.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.917[a]	.840	.760	5107143.275	1.799

a. Predictors: (Constant), Lama Melaut (X3), Tenaga Kerja (X2), Modal (X1)

b. Dependent Variable: Hasil Produksi (Y)

Based on the table above, the results show that the DW value is 1.799. It is known that k = 2 and n = 10 so according to the DW table with a sig value of 0.05, the dL value is 0.6972 and The 4-dL value is and the dU value is 1.6413. 3.3028, and the 4-dU value is 2.3587.

Runs Test

	Unstandardized Residual
Test Value[a]	1829156.050
Cases < Test Value	5
Cases >= Test Value	5
Total Cases	10
Number of Runs	7
Z	.335
Asymp. Sig. (2-tailed)	.737

a. Median

This table provides information about the Asymp value. It is possible to conclude that there are no autocorrelation-related symptoms or issues because the sig of 0.737 is greater than 0.05

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	45532544.07	27035680.18		1.684	.143
	Modal (X1)	33.939	199.931	.080	.170	.871
	Tenaga Kerja (X2)	-4210.909	2915.201	-.524	-1.444	.199
	Lama Melaut (X3)	-132.287	266.296	-.261	-.497	.637

a. Dependent Variable: Abs_RES

The aforementioned table indicates that every variable has a Sig value greater than 0.05, indicating heteroscedasticity does not occur.

DISCUSSION

Production capital does not have a favorable and noteworthy impact on the fishing community's productivity in Prigi village, Watulimo subdistrict, Trenggalek district. With a significance threshold of 0.000 and an alpha coefficient of 5%, the t test produces a modal t value of -0.808 and a sig of 0.450. A significance value > 0.05 indicates that production capital does not significantly influence production results (Y). Thus, the first hypothesis statement (H1), which states that production Capital has a substantial and favorable impact on the fishing community's productivity in Prigi Village, Watulimo Subdistrict Trenggalek district, is rejected.

Labor does not have a favorable and noteworthy impact on the fishing output in the Trenggalek district's Prigi village and Watulimo subdistrict. The t test yields a modal t value of 1.774 and a sig of 0.126 with a significance threshold of 0.000 and an alpha coefficient of 5%. A significance level higher than 0.05 indicates that labor does not significantly influence production results (Y). Thus, the second hypothesis statement (H2), which states that it is suspected that Work has a favorable and noteworthy impact on the fishing

community's productivity in Prigi village, Watulimo subdistrict, Trenggalek district, is rejected.

Fishermen's productivity in Prigi village, Watulimo subdistrict, Trenggalek, is positively and significantly impacted by their length of sea time. district. With a significance threshold of 0.000 and an alpha coefficient of 5%, the t test produces a modal t value of 2.976 and a sig of 0.025. A significance value of <0.05 indicates that The amount of time at sea has a big impact on output results (Y). Thus, the third hypothesis statement (H3), which states that it is thought that long periods of fishing have a favorable and noteworthy impact on the fishing community's productivity in Trenggalek's Prigi village, Watulimo subdistrict district, is accepted.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of research entitled Analysis of Factors that Influence Fishermen's Production Results in Prigi Archipelago Fisheries Harbor (PPN), Watulimo District, Trenggalek Regency, the following conclusions can be drawn:Modal Tidak Berpengaruh positif dan signifikan terhadap Hasil Produksi Nelayan Di Desa Prigi Kecamatan Watulimo Kabupaten Trenggalek.

1. Labor does not have a favorable and noteworthy impact on the productivity outcomes of the fishermen in Trenggalek's Prigi village, Watulimo subdistrict district.
2. The length of time at sea has a positive and significant effect on the production of fishermen in Prigi village, Watulimo sub-district, Trenggalek regency.

FURTHER STUDY

The results may change based on the time period and context, so it is important to recognize the limitations of this study. Therefore, in order to get thorough results, more research that takes into account pertinent factors is advised. may differ based on the historical and contextual context.

Therefore, in order to get thorough results, more research that takes into account pertinent factors is advised.

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