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Investment Contribution as a Driver of the Fisheries Subsector in Eastern Indonesia

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ABSTRACT
The potential of the fisheries sector in Eastern Indonesia is very large. Investment as a driving force for the fisheries subsector is not only needed for infrastructure, but the fish processing industry sector also requires very large investment. Even though foreign investment is helping to drive this sector, the amount is still not optimal, the main reason is that licensing is long and complicated. Limited investment gives rise to illegal fishing and overfishing which cannot be avoided even though prevention is always carried out in various ways. This research uses a panel data linear regression method to determine the magnitude of the contribution of investment as a driver of the fisheries sector. The result is that investment, employment and the fish processing industry sector can jointly influence the growth of the fisheries sector. Investment in infrastructure development must be followed by investment for the needs of the fish processing industry

1. Introduction

Indonesia as an archipelagic country has enormous fish resource potential and high biodiversity. The maritime sector holds significant strategic importance for Indonesia, being the largest archipelagic nation with a manageable sea area spanning 5.8 million km2. Indonesia possesses the most substantial fisheries potential globally, encompassing both capture fisheries and aquaculture. The total potential economic value of Indonesia's maritime sector is estimated at I.33 trillion US dollars/year or 1.3 times Indonesia's current GDP or 7 times the 2017 APBN. Moreover, it is estimated that the marine sector has the capacity to generate employment opportunities for approximately 45 million individuals, which accounts for 35% of the entire Indonesian labor force consisting of 126 million people aged between 15 and 64 years. However, the current level of exploitation of Indonesia's marine economy is believed to only reach approximately 25% of its full potential.

The fisheries sector can play an important role in creating jobs and alleviating poverty which will then lead to economic development (Deka, 2021). This sector can increase investment, the number of jobs and can absorb a lot of workers (Christensen et al., 2014), The tax allowance policy has the

potential to stimulate growth in the fisheries industry by attracting both domestic and international investments (Hardianti & Setyowati, 2019), The dominant sub-sector of sub-district fisheries should be determined by considering factors such as the availability of skilled labor, utilization of natural resources, infrastructure development, existing and prospective market opportunities, as well as local and central government policies (Teniwut et al., 2019), Fishermen and small-scale fish farmers have the potential to attain enduring sustainability (Bjorndal et al., 2014). Capture fisheries and aquaculture are crucial components of food supply systems, as they contribute significantly to food security and economic prosperity for farmers and various stakeholders throughout the supply chain, spanning across local and global scales (Bomdzele et al., 2021). Paradoxically, the fisheries industry has not been accorded significant focus by governmental and corporate entities, despite the potential for this sector to substantially contribute to regional economic growth and alleviate poverty within regional communities, particularly among fishing communities and entrepreneurs involved in capture fisheries.

In addition to this, issues commonly encountered in this industry include the unlawful practice of fishing and excessive fishing. The act of illegal fishing can take place in various settings, regardless of the geographical location, targeted species, fishing equipment employed, or level of exploitation. This illicit activity can transpire in both small-scale and large-scale fisheries, encompassing those within national and international jurisdictional zones, such as the high seas (Swan, 2005). The issue of illegal fishing poses a significant challenge in attaining sustainable fisheries in both territorial waters and international waters. The intensity of fishing theft by foreign fishing vessels (KIA) tends to continue to increase. Most of the fish theft occurs in ZEEI, especially in three sea areas, namely the South China Sea, Arafura Sea and Sulu Sea, Sulawesi, as well as quite a lot in archipelagic waters. The issue of illegal fishing is not only a national problem but also a global problem so that discussion of this problem is discussed in regional, multilateral and bilateral scopes. Illegal fishing is a global problem that requires global action (Mfodwo & Tsamenyi, 2011).

The issue of overfishing poses a significant concern within the fisheries industry. One of the underlying factors contributing to overfishing is the provision of governmental subsidies. It is imperative to impose limitations on government subsidies in order to mitigate the problem of overfishing (Andriyono, 2018; Lee & Viswanathan, 2019). Government assistance programs for fisheries, particularly those aimed at providing financial incentives for landing catches, subsidizing fuel costs, and offering income support, appear to promote further exploitation of fish stocks. (Munteanu & Stanciu, 2018) The decline in fish catches, both in terms of quantity and economic worth, can be attributed to overfishing, illicit fishing techniques, areas where fishing is prohibited, and periods during which fishing is prohibited. The issue of overfishing can give rise to various challenges within the fisheries industry, such as a significant decrease in fish catches, a lack of progress in mariculture advancements, inadequate implementation of sustainable fishing practices, and insufficient protection of economically valuable species (Mikuš et al., 2018), The impact of the fisheries industry's production on the quality of the environment (Oktavilia et al., 2018), the sustainability of fisheries will be threatened (Samosir et al., 2014), the growth of the fisheries sector is relatively slow and no longer has a competitive advantage (Rizal et al., 2019).

Investment in the fisheries sector

Fisheries refer to the utilization of marine biological resources. The author's definition of fisheries is restricted to marine fisheries, as they differentiate them from cultivation-based farming activities that stem from hunting activities (Hempel & Pauly, 2020). Fisheries can be understood as a complex system comprising three essential elements: aquatic organisms, their habitat, and human utilization of these resources. The interplay between these components is crucial in determining the overall effectiveness and outcomes of fisheries (Lackey, 2005). Fisheries encompass all activities related to the cultivation, management, and marketing of fish. Concurrently, fisheries resources

encompass the diverse array of animals and plants inhabiting aquatic environments, including both terrestrial and marine ecosystems (Mubyarto, n.d.).

Investment in the marine and fisheries sector is still very minimal. The realization of domestic investment (PMDN) in the fisheries business sector is only ranked 22nd, with an investment value of IDR 140.1 billion for 268 projects, while foreign investment (PMA) is ranked 23rd or the bottom with an investment value of 1 .2 million US dollars for 67 projects. The development of the fishing industry is still hampered by the investment climate, namely complicated regulatory and licensing issues as well as fines or administrative sanctions that are considered burdensome. Fines for non-tax state revenues (PNBP) related to violations of fish hatchery and rearing business activities that do not meet standards reach 7.5 percent of business capital. This rule will make investors afraid to invest in the fisheries sector. Apart from the large PNBP, the threat of fines is very scary.

Labor Absorption

The fisheries sector makes a significant contribution in providing employment and generating large revenues from exports of fish and fish products. This sector can develop into an engine of rural economic growth and social development (Noman et al., 2017). The fisheries sector contributes to creating new socio-economic opportunities for fishermen and improving the livelihoods of one of the poorest communities in society while maintaining coastal and marine natural resources (Nader et al., 2013). To maintain and increase the contribution of the fisheries sector, (Gupta, 2019) provide training programs for fish farmers, form self-supporting fish farmer groups and encourage small entrepreneurs to set up aquarium shops. If available resources are used sustainably with the help of appropriate technology, fish produced from aquaculture will efficiently meet the protein demand of the country's growing population (Hossain, 2015). Multi-sector, multi-species fisheries are regional employment providers and suppliers of seafood for both local and export markets (Pascoe et al., 2019).

But unfortunately, workers who work in the fisheries sector still experience many obstacles, including a lack of knowledge and a lack of technological adaptation. Expert systems can play a major role for knowledge renewal and technology transfer in the field of fisheries where research-extension linkages are poor, manpower and funds available are inadequate for extension services (Kumaran, 2013). The implementation of Artificial Intelligence in industry has the potential to enhance operational efficiency and mitigate expenses. However, there exist significant obstacles including the high costs associated with development and deployment, the absence of established norms and regulations, and the limited availability of multidisciplinary proficiency encompassing biological, AI, and legal expertise required for the creation of purposeful systems. In contrast to commercial fisheries, recreational fisheries are seldom subjected to equivalent standards (Fernandes-Salvador et al., 2022). Recreational fishers lack motivation to adhere to reporting and assessment protocols, total fishery catch limits, and allocated catch accounting, while commercial fisheries are typically obligated to comply with rigorous standards (MacKenzie & Cox, 2013).

Performance of the Fish Processing Industry Sector

Industrialization always plays a central role in the development process. The process of industrialization and industrial development is a path of activity to improve people's welfare in two senses at once, namely a more advanced standard of living and a quality standard of living. The industrialization process can be pursued in two ways at once, namely vertically, which is indicated by the greater added value in economic activities, and horizontally, which is indicated by the wider productive employment opportunities available to the population (Arsyad, 2010).

The agricultural sector and the industrial sector are the primary drivers of a country's economy. While the agricultural sector plays a crucial role in providing sustenance for society, it is not sufficient to stimulate substantial economic expansion. A country will never achieve progress if the country only relies on the strength of the agricultural sector alone. What is able to bring the economy to a

higher level is the industrial sector. Therefore, industrialization is the first step to bring the economy in a more advanced direction.

The success of an industrialization process cannot be separated from the support of relevant human resource capacity, and the ability of the "process" to utilize available natural and human resources. Create policies to reallocate natural resources, strengthen national production activities and potentially develop a national strategic plan for export marketing of fishery products (Kaimakoudi et al., 2014). Numerous governmental measures are enforced to provide assistance to the fishing industry, frequently aimed at rectifying particular market deficiencies (Le Floc'h et al., 2012). Priority should be placed on enhancing fish production, augmenting export revenues, bolstering fisheries infrastructure, promoting local fish consumption, adjusting fishing practices, optimizing untapped resources, and particularly, enhancing the socio-economic well-being of fishing communities.

Global projections until 2050 to meet projected food needs, fish production must increase 50% from current levels. But growth in domestic fish production is projected to slow due to climate change and other constraints (Ricel & Garcia, 2011) (Dey et al., 2016). Climate change is projected to have a detrimental impact on ecological systems, biodiversity, habitats, populations, communities and economies while increasing pressure on livelihoods and food availability, including fisheries. People's income and harvests in the agricultural and fisheries sectors are highly dependent on the season, weather and natural conditions and are not routine (GUNANTO, 2022). The acquisition of fishing rights is justified by the significant reliance on fishing as a means of ensuring food security and sustaining livelihoods (Auld & Feris, 2022). Mariculture possesses the potential to serve as an influential catalyst for economic growth. By prioritizing mariculture and actively endorsing its practice, the fisheries industry can effectively enhance fish production, thereby contributing to the betterment of livelihoods, food security, and the creation of alternative employment opportunities (Shah et al., 2018).

2. Materials and Methods

Quantitative research methods were used to analyze panel data for seven annual periods and ten cross-section data, secondary data that has been published at the Ministry of Fisheries and Maritime Affairs. The Panel Data Linear Regression Method is used to process and analyze fisheries sector data in the Eastern Indonesia Region. Stationary Test The unit root test is used to ensure that the data used is in a stationary position so that the data is suitable for use for analyzing variable data. Data transformation in the form of Natural Logarithms (ln) was carried out so that the data was homogeneous.

Secondary data used for analysis in this research is investment data in the fisheries sector, the number of workers using data on the number of fishermen catching at sea, the industrial sector using data from fishing households/fishing companies (RTP/PP) and data on GRDP growth in the fisheries subsector. The data used comes from the same source, namely data from the Ministry of Maritime Affairs and Fisheries.

The sample used in this research was the Fisheries Management Area of the Republic of Indonesia (WPPN RI, 714, 715 and 718) in the Eastern Indonesia Region. Sample data was tested at the level and first difference level, after being processed using the eviews program. All position data is stationary at first difference. Linear regression, both simultaneous and partial, is used to see the magnitude of the influence and level of significance between the independent variables (x) and the dependent variables (y). Statistical hypothesis tests, namely the F test and t test, are used to determine the direction of the relationship between the independent variable (x) and the dependent variable (y). Coefficient of determination/Goodness of Fit (Adjusted R-square). Used to determine the joint influence of the independent variable (x) on the dependent variable (y).

3. Result and Discussion

Stationary Test unit root test

The first step is to carry out a stationary test with a unit root test. At the level level, not all data is stationary, so a unit root test is carried out on the first difference to produce stationary data, so that the data is suitable for use for analysis.

Table 1 Stationary Test Results of unit root test on First Different

	First Different		
Variable	ADF-Fisher Chi-square	statistic	Information
Fisheries Subsector Performance	0,0047	45.8107	Stationary
Investment	0,0029	47.4899	Stationary
Employment	0,0354	37.9070	Stationary
Industrial Sector Performance	0,0000	80.7479	Stationary

Source: reviews 10 data processing.

From the results of the stationary unit root test with ADF-Fisher Chi-square, the results showed that all variables were stationary at the first difference level, so the model could be continued using panel data regression.

Table 2: Results of Multiple Linear Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	25.52314	3.749776	6.806579	0.0000
Investment	0.526548	0.089767	5.865741	0.0000
Employment	1.511925	0.254637	5.937576	0.0072
Industrial Sector Performance	1.828032	0.434798	4.204325	0.0001

Source: eviews 10 data processing.

The results of multiple panel data linear regression produce the following equation;

$$y = 25{,}523 + 0{,}526\, x_1 + 1{,}511\, x_2 + 1{,}828\, x_3$$

The interpretation of the regression equation is as follows:

1) Constant value = 25.523, meaning that according to statistical calculations, if all ceteris paribus variables (economic factors) have a constant value, then the Fisheries Subsector Performance value is 25.523.
2) The coefficient value β1 = 0.526 means that the elasticity value of investment on the performance of the fisheries subsector is E = 0.526. An E value < 1 indicates that the increase in investment is inelastic towards the performance of the fisheries subsector.
3) The coefficient value β2 = 1.511, meaning that the elasticity value of labor absorption on the performance of the fisheries subsector is E = 1.511. An E value > 1 indicates that an increase in Labor Absorption is elastic to the Performance of the Fisheries Subsector.
4) The coefficient value β5 = 1.828, meaning that the elasticity value of Industrial Sector Performance towards Fisheries Subsector Performance is E = 1.828. An E value > 1 indicates that the increase in Industrial Sector Performance is elastic to the Performance of the Fisheries Subsector.

F Test Results

The results of the F test show a probability value (F-statistic) of 0.000000 < α = 0.05, which means it has a significant effect. This shows that the variables Investment, Labor Absorption and Performance of the Industrial Sector simultaneously have a significant effect on the Performance of the Fisheries Subsector in Eastern Indonesia Region.

t Test Results

The results of the t-statistical test are used to show the influence of each independent variable on the dependent variable partially in the Eastern Indonesia Region, by comparing the probability value (p-value) and the error rate α of 5 percent as follows:

1) The Effect of Investment (x_1) on Fisheries Subsector Performance (y) in the Eastern Indonesia Region.

   The t-statistic value is 5.865741 > t-table is 1.658, a positive t-statistic value indicates the direction of the relationship is in the same direction. The probability value (p-value) is 0.0000 < 0.05 so that H0 (insignificant influence) is rejected and Ha (significant influence) is accepted. Thus, it is proven that investment has a positive and significant effect on the performance of the fisheries subsector in the Eastern Indonesia region.

2) The Effect of Labor Absorption (x_2) on Fisheries Subsector Performance (y) in the Eastern Indonesia Region.

   The t-statistic value is 5.937576 > t-table is 1.658, a positive t-statistic value indicates the direction of the relationship is in the same direction. The probability value (p-value) is 0.0072 < 0.05 so that H0 (insignificant influence) is rejected and Ha (significant influence) is accepted. Thus, it is proven that labor absorption has a positive and significant effect on the performance of the fisheries subsector in the Eastern Indonesia region.

3) The Influence of Industrial Sector Performance (x_3) on Fisheries Subsector Performance (y) in the Eastern Indonesia Region.

   The t-statistic value is 4.204325 > t-table is 1.658. The positive t-statistic value shows that the relationship is in the same direction. The probability value (p-value) is 0.0001 < 0.05 so that H0 (insignificant influence) is rejected and Ha (significant influence) is accepted. Thus, it is proven that the performance of the industrial sector has a positive and significant effect on the performance of the fisheries subsector in the Eastern Indonesia region.

The results of multiple linear regression of panel data using the *Fixed Effect Model*, can be seen from the variables that have the dominant influence to the variables that have the weakest influence as follows:

1. The Labor Absorption Variable (x_2) is the most dominant variable in influencing the performance of the fisheries subsector. This can be seen from the t-statistic value of 5.937576, the coefficient value of 1.511925 and the p-value of 0.0072.
2. Investment variable (x_1) is a supporting variable in influencing the performance of the fisheries subsector. This can be seen from the t-statistic value of 5.865741, the coefficient value of 0.526548 and the p-value of 0.0000.

Coefficient of Determination/Goodness of Fit (*Adjusted R-square*)

The magnitude of the influence of Investment, Labor Absorption and Industrial Sector Performance simultaneously has a strong influence on the Performance of the Fisheries Subsector in the Eastern Indonesia Region as shown by the regression results of the three independent variables on the Performance of the Fisheries Subsector, namely Adjusted R-square = 0.7592460 or 75. 92 percent means that the variables Investment, Labor Absorption, and Industrial Sector Performance can simultaneously explain 75.92 percent of changes in Fisheries Subsector Performance, the remaining 24.08 percent is influenced by other factors outside the model studied.

Discussion

a. The Influence of Investment, Labor Absorption and Industrial Sector Performance on the Performance of the Fisheries Subsector in the Eastern Indonesia Region.

The large influence of Investment, Labor Absorption, and Industrial Sector Performance simultaneously has a strong influence on the Performance of the Fisheries Subsector in the Eastern Indonesia Region. The average contribution of the fisheries sector to GRDP on the island of Sulawesi reached 7.27%, on the island of Maluku - Papua it reached 5.97%, on the island of Bali - Nusa Tenggara

it reached 4.30%, on the island of Sumatra it reached 3.14%, in the island of Kalimantan reached 2.01%, and the island of Java reached 0.94%. Even though the GRDP value of fisheries on the island of Java is the highest compared to other islands, the contribution to the total GRDP value on the island of Java is the lowest, not even 1%. Meanwhile, on the islands of Maluku – Papua the opposite happened. Even though the GRDP value of fisheries is far below that of the island of Java, the contribution to the total GRDP of the islands of Maluku - Papua is much greater than the contribution on the island of Java. The contribution of fisheries on the islands of Maluku - Papua is 7 times greater than the contribution of the fisheries sector on the island of Java. On the island of Sulawesi, the contribution of the fisheries sector is 8 times greater than on the island of Java. This shows that the fisheries sector is much more dominant on the islands of Maluku, Papua and Sulawesi compared to the island of Java. Even though the value of gross regional domestic product in the provinces of Eastern Indonesia is high, the depth of poverty is increasing. The number of poor people in Indonesia is 26.16 million people or 9.54% of the total population. The province in eastern Indonesia is the region with the greatest depth of poverty (BPS, 2022).

The expansion of the fisheries industry indicates a rise in the buying capacity of individuals involved in the marine and fisheries sectors, relative to those engaged in other sectors within the domains of agriculture, forestry, fisheries, and national groups. The expansion of the fisheries sector in 2021 highlights its significant potential for contributing to Indonesia's economic development. Despite the ongoing Covid-19 pandemic, the fisheries sector experienced a notable growth rate of 9.69 percent. This growth can be attributed to increased production in both aquaculture and capture fisheries, which was facilitated by favorable weather conditions. However, it is important to note that the pandemic has had adverse effects on the demand and supply chain for agricultural commodities, including fish and fishery products. The national lockdown measures have directly impacted the distribution of production and marketing activities related to inland fisheries, marine capture fisheries, seed supply, and marine product exports (Indonesia, 2021) and also impacts the lives of millions of people who depend on this sector (Purkait et al., 2020), as well as resulting in a lack of transportation to markets, restrictions on exports of fish and fishery products, and low fish prices (Bhendarkar et al., 2021).

b. The Effect of Investment on Fisheries Subsector Performance

Investment has a positive and significant effect on the Performance of the Fisheries Subsector in the Eastern Indonesia Region. Investment is a supporting variable in influencing the performance of the fisheries subsector. Realization of foreign investment (PMA) and domestic investment in the fisheries sector is very low. The contribution of the fisheries sector to the realization of FDI over the last 10 years has only been 0.5 percent of the total national FDI. His contribution in 2020 was US$48.2 million or IDR 700 billion. In 2021 it will fall 65 percent to US$17.1 million or IDR 249.8 billion. When compared with PMDN, investment trends continue to fluctuate, but tend to increase in the last 3 years. Realization of PMDN in 2020 was IDR 564.9 billion, while in 2021 it rose 79 percent to IDR 1 trillion. In 2022 the realization will only be IDR 522.6 billion (Coordinating Ministry for Maritime Affairs and Fisheries, 202).

Even though it is the smallest contributor to investment realization in the last 10 years, the investment trend in the fisheries sector still shows positive growth even though the trend is very fluctuating. This low investment is due to the current investment climate which is still not suitable for investors in the fisheries sector. Banking providers of people's business credit (KUR) still consider fisheries to be a very risky sector. The level of investment in the fisheries sector is growing faster than the agricultural sector, but investment efficiency in this sector is showing a decline. Over a certain period of time, the level of capitalization in the fisheries sector is very high, but catches tend to decrease (Alam et al., 2022). Fishing communities continue to suffer the impacts of irrational investments. The development of the fisheries sector is not necessarily commensurate with the level of investment in the sector, unlike the industrial and processing sectors. Unplanned investments have

a negative impact on the productivity of fishing units, thereby affecting the socio-economic situation of small-scale fishermen (Kemaritiman, 2017). Investment in physical capital, human capital and labor is an important factor for economic growth performance (Suresh & Shinoj, 2018). The government must improve the business environment, so that it can provide a stable investment flow and sustainable economic growth in the long term (Salah Eddine & Saïd Chaouki, n.d.). The fisheries sector contributes to the country's net domestic product, nutritional security, and job creation. Given the important role of public investment in the growth of the fisheries sector, there must be an increase in fisheries sector investment sponsored by the government (Conteh et al., 2021).

c. The Effect of Labor Absorption on Fisheries Subsector Performance

Labor absorption has a positive and significant effect on the performance of the fisheries subsector in the Eastern Indonesia region. Labor absorption is the most dominant variable in influencing the performance of the fisheries subsector. The fisheries sector can play an important role in creating jobs and alleviating poverty which will then lead to economic development. This sector can increase investment, the number of jobs and can absorb a lot of workers. There are 94 fishing companies spread across 18 provinces of Indonesia. The workforce that can be absorbed is 16,030 workers, consisting of 14,541 men (90.71%) and 1,489 women (9.29%). A total of 3,438 workers have permanent status (21.45%), while 12,592 workers have non-permanent status (78.55%). Most of the female workers in this industry are non-production workers, while the majority of male workers are production workers. This is because production workloads often require more energy and time, such as catching fish in the open sea which takes days. Women have a minimal contribution to the fisheries sector and show that women have valuable participation in the fisheries sector along with men, and this contribution makes the fishing industry sustainable (Rizal et al., 2020)(Baba et al., 2019)(Mutia et al., 2020). but In practice, there are still many issues of gender inequality that occur in households in the fisheries and marine sectors (Thorpe et al., 2013).

d. The Influence of Industrial Sector Performance on Fisheries Subsector Performance

Industrial Sector Performance has a positive and significant effect on the Performance of the Fisheries Subsector in the Eastern Indonesia Region. As a maritime country that has vast oceans, Indonesia should dominate the fishing industry both domestically and internationally. In fact, every year Indonesia still imports supplies of fish as industrial raw materials whose demand is quite high. The total import volume of fishery commodities is set at 266,827.8 tons. Of the total imports, only 41.2% or 109,821.95 tonnes was realized to meet the needs of 77 companies. Overall, the number of shrimp and other fish processing companies in Indonesia is 674 companies. Meanwhile, there are 44 fish canning companies and 65,766 small, micro and medium business processing units (Ministry of Industry, 2018).

The national fish processing industry is not yet optimal. This can be seen from the industry utilization level which is still below 50%. The fish processing industry still requires raw materials with specific types of fish and certain quality standards, as well as continuous supply. The main factor causing low utilization of the fish processing industry is the insufficient supply of fish raw materials (Ministry of Industry, 2017). Reindustrialization is able to increase the output growth of the small and medium industrial sector higher than that of large industri. Industrial areas are believed to be able to support the development of the industrial sector in developing countries through better infrastructure facilities, access to supporting industries and an abundance of technology and information. These three factors are expected to encourage the productivity and export activities of manufacturing companies in industrial areas. Intra-industry trade may vary for country- or industry-specific reasons (Malik & Kirmani, 2021)(Situmeang, 2019) Village location, resources, and the ability of fishermen to sell and buy fishing gear are the main determining factors of interdependence (Tayyar, 2022)(Teniwut et al., 2020).

4. Conclusion

The large influence of Investment, Labor Absorption, and Industrial Sector Performance simultaneously has a strong influence on the Performance of the Fisheries Subsector in the Eastern Indonesia Region. The fisheries sector showed positive growth, namely up 9.69 percent in 2021 even though the Covid-19 pandemic is still hitting Indonesia. This increase was triggered by increased production of aquaculture and capture fisheries.

Investment is a supporting variable in influencing the performance of the fisheries subsector. Even though it is the smallest contributor to investment realization in the last 10 years, the investment trend in the fisheries sector still shows positive growth even though the trend is very fluctuating. The level of investment in the fisheries sector is growing faster than the agricultural sector, but investment efficiency in this sector is showing a decline.

Labor absorption has a positive and significant effect on the performance of the fisheries subsector in the Eastern Indonesia region. Labor absorption is the most dominant variable in influencing the performance of the fisheries subsector. A total of 3,438 workers have permanent status (21.45%), while 12,592 workers have non-permanent status (78.55%). Most of the female workers in this industry are non-production workers, while the majority of male workers are production workers. The potential employment that can be generated from the fisheries sector is around 45 million people or 35% of the total Indonesian workforce (126 million people, aged between 15 and 64 years).

Industrial Sector Performance has a positive and significant effect on the Performance of the Fisheries Subsector in the Eastern Indonesia Region. Overall, the number of shrimp and other fish processing companies in Indonesia is 674 companies. Meanwhile, there are 44 fish canning companies and 65,766 small, micro and medium business processing units.

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