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## **STUDY OF FISHERIES INDUSTRY POTENTIALS IN CIREBON DISTRICT**

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### **ABSTRACT**

This study aims to determine the problems of the potential of fisheries industry growth and development of the fishing industry that affect development in Cirebon Regency. The research began in September 2017 until January 2018. The research method was carried out using the literature survey data collected through survey decisions which were then analyzed quantitatively and presented descriptively (Rizal 2013). The research data consists of two types, namely primary data and secondary data. Data analysis carried out included Shift Share Analysis and Location Quotient (LQ) Analysis. The results of the analysis of the potential Fisheries Industry in Cirebon Regency are Freezing (LQ 1.48), Salting (LQ 1.69), Scanning (LQ 1.18), Fermentation (LQ 1.14) and other processing (LQ 1.09) is an industry which if developed can become a potential industry in Cirebon Regency. the growth of the fishing industry shows the net shift value of the Cirebon Regency fisheries industry production with an average of 2013-2017 amounting to -166,447.88. the fishing industry in Cirebon Regency shows PB value  $<0$ , meaning that the fishing industry in Cirebon Regency has a slow growth rate ...

*Keywords: fishing industry potential, Cirebon district, Shift Share Analysis and Location Quotient (LQ) Analysis.*

## INTRODUCTION

The potential of capture fisheries in Cirebon Regency, based on the statistical data of the Cirebon Regency Marine and Fisheries Service (2015), consists of large pelagic fish (5,627 tons / year), small pelagic fish (11,425 tons / year), demersal fish (4,261 tons / year), shellfish (331 tons / year). This potential is possible if the capture fisheries sub-sector can act as an economic base in increasing regional income. Thus, if the fisheries sub-sector is managed optimally it will be able to make a large contribution to the economic development of the region, especially the coastal areas so that the income of coastal areas can be minimized.

According to Rizal (2013a) in Rizal (2016) regional development in Cirebon Regency, which has tended to be biased to the ground, has caused less attention to aspects of coastal development. Whereas fisheries as a system has an important role in the provision of food, employment opportunities, trade and welfare and recreation for the community in general and especially for coastal communities. The pattern of development of coastal areas has been equated with the pattern of development of other terrestrial areas with conditions analogous to agricultural areas in the countryside.

This condition shows that Cirebon Regency has the potential for development and the development of the fisheries industry is very intensively developed through the right steps, then the potential of the fisheries industry produces large production values and can be utilized for the advancement of the community economy and development of the Cirebon Regency, therefore there needs to be monitoring to find out the development and development of the fishing industry that will be recorded and reviewed in each region which will be used as data to manage fisheries resources. The fishing industry in the district

cirebon is a crab fishing industry, green mussel cultivation industry, fish canning industry, salt processing industry and other fish processing industries. (DKP Cirebon Regency 2017).

The development and development of industrial potential in Cirebon Regency is expected to support the economy of the coastal communities and fishermen to employ these communities in order to reduce the number of unemployed, prosper the community and increase fisheries infrastructure and optimize development in the region

## RESEARCH METHODS

The research method was carried out using the literature survey data collected through a survey decision which was then analyzed quantitatively and presented descriptively (Rizal 2013).

The data used consists of primary data and secondary data. Primary data obtained from observations, both in the form of questionnaires, interviews with related parties and documentation. Primary data is more focused on the performance of the fisheries sector in both the economic, social, environmental and institutional sectors and the problems faced. This primary data is needed to determine the existing conditions of fisheries management in the field. Meanwhile, secondary data was obtained through a desk study study to gather information about previous research as well as the latest developments regarding the management of fisheries industrialization in general. Secondary data used include in the form of time series data on fisheries production and processing of fishery products, regional economic growth, and regional regulations related to fisheries management.

Analysis of the data used in this study is descriptive quantitative while the analysis used is the Analysis of Shift Share Analysis and Location Quotient Analysis (LQ)

## RESULTS AND DISCUSSION

### Geographical Location and Regional Condition of Cirebon Regency

Cirebon Regency is geographically located in the eastern part of the West Java Province and is a boundary, as well as the gateway to Central Java Province. The location of the land extends from Northwest to Southeast. Viewed from the ground / land surface can be divided into two parts, firstly the lowland area is generally located along the northern coast of Java Island, namely Gegesik, Kaliwedi, Kapetakan, Arjawinangun, Panguragan, Klangeran, North Cirebon, West Cirebon, Weru, Astanajapura, Pangenan, Karangsembung, Waled, Ciledug, Losari, Babakan, Gebang, Palimanan, Plumbon, Depok and Pabedilan District. While some are included in the highlands. This region is at the position of  $108^{\circ} 40' \text{ BT} - 108^{\circ} 48' \text{ BT}$  and  $6^{\circ} 30' \text{ LS} - 7^{\circ} 00' \text{ LS}$  with the administrative boundaries as follows:

North Side: Indramayu Regency

Northwest: Majalengka Regency

South Side: Kuningan Regency

Next to East: Cirebon City and Brebes Regency

The total area is 990.36 km<sup>2</sup> with a height of 0-130 m above sea level. The location of the land extends from Northwest to Southeast. Cirebon Regency is part of the West Java Province which is located in the east and is a boundary, as well as the gateway to Central Java Province.

In the agricultural sector, Cirebon Regency is one of the rice producer regions located on the northern coast line.

### General Economic Condition

The economic situation of a region can be seen from the percentage distribution of GRDP and each category of total GRDP. The economic structure of Cirebon Regency in 2016 was dominated by the category of processing industries with a role of 21.42 percent. Then the categories of agriculture, forestry and fisheries contributed 16.30 percent and the categories of large and retail trade, car repair and motorbike repairs were 15.89 percent. Then the next category with a large role is the construction category with a share of 11.57 percent.

In 2017 the agriculture, forestry and fisheries business field categories contribute to GDP at current prices of 1%. The contribution of the fisheries sector has increased every year, although not significantly, in 2013 the fisheries sector contributed 1.35%, in 2014 it contributed 1.37%, an increase compared to 2015. In 2016 the fisheries sector showed a steady rate of no decline or increase. In 2017 the fisheries subsector increased compared to 2016 at 1.38.

The increase in the fisheries sector was influenced by increased fisheries production and improved supporting facilities so that the fisheries sub-sector each year showed an increase although not significant.

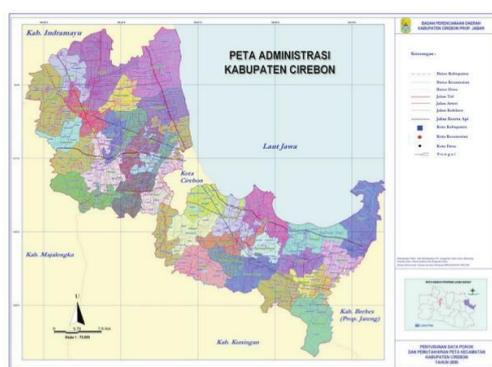


Figure 1. Map of the administrative area of Cirebon Regency  
Potential of Fisheries Industry in Cirebon Regency

**Table 1. Results of calculation of fisheries industry LQ 2013-2017.**

No	Type Of Industry	LQ value					average information		
		2013	2014	2015	2016	2017			
1.	anning	dta	dta	dta	dta	dta	-		
2	Freezing	0.41	0.48	0.77	0.48	0.29	1.48	potentially	
3.	Salting / Drying	0.41	0.53	0.83	1.59	1.36	1.69	potentially	
4	Scanning	1.23	1.27	0.93	0.89	1.58	1.18	potentially	
5.	Smoked / Grilling	0.29	0.31	0.20	0.06	0.00	0.17	no potential	
6.	Fermentation	1.11	1.63	1.18	1.64	0.14	1.14	potentially	
7	Reduction	0.10	0.53	0.37	0.08	0.68	0.35	no potential	
8.	Dozing / Surimi / Jelly	0.02	0.01	0.04	0.07	0.14	0.05	no potential	
9.	Fresh Handling	0.80	1.18	0.31	0.79	0.08	0.63	no potential	
10	Other Processing	0.17	1.23	1.12	1.55	0.46	1.09	potentially	

production affects nilai LQ.

Table 1 shows the results of LQ analysis calculations. The fisheries industry with LQ value > 1 is a fishing industry that has more potential than other fishing industries to meet demand both from within the Cirebon Regency area and outside the region as well as abroad, and is the fishing industry that is most managed by the community. LQ <1, meaning that certain fisheries industries in the region have no potential to be managed and marketed properly.

Types of industries that have an average value of LQ > 1 include freezing industry (LQ 1.48), salting (LQ 1.69), scanning (LQ 1.18), fermentation (LQ 1.14) and other processing (LQ 1.09) is an industry which if developed can become a potential industry in Cirebon Regency and the number of its production is more efficient to meet demand both inside and outside the country. The fishing industry in the business branch of freezing, salting, scanning, fermentation and other processing such as stripping (mini plan) is indeed a lot of enthusiasts from the community so that demand continues to increase and its natural resources are still relatively good so that production continues to grow, even the ingredients for processing still relatively cheap. this shows that the amount of industrial

While the type of fishing industry has a value of LQ <1 among them:

Smoked / Grill (LQ 0.17), Reduction (LQ 0.35) Dozing / surimi / jelly (LQ 0.05), Fresh Handling (LQ 0.63)

It shows that all types of fishing industry are non-potential industries and that the amount of production is only enough to meet the needs of the Cirebon Regency. Industrial production in Cirebon Regency cannot meet the needs in its own area and must obtain supplies from outside the region.

### Growth Rate and Role of the Fisheries Industry

Table 2 shows the changes in the percentage of Cirebon Regency and West Java Province.

**Table 2. Changes in Production of Fisheries Industry in Cirebon and West Java Districts at Constant Prices 2013-2017.**

Years	( $\Delta Y_i$ )	Percentage of Change (%)	( $\Delta Y_j$ )	Percentage of Change (%)
2013/2014	139	0.01	29.677.19	0.15
2014/2015	112	0.01	75.601.59	0.44
2015/2016	5.727	0.57	23.209.17	0.09
2016/2017	1.472	0.34	174.300.93	0.64

Description:  $\Delta Y_i$  = Cirebon Regency  
 $\Delta Y_j$  = West Java Province

**Table 3. Fisheries Industry Production Ratios in Cirebon Regency and Java Province West in 2013-2017.**

Year of Analysis	Ri	ri	Ra
2013/2014	0.09	0.3	0.1
2014/2015	0.5	0,04	0.3
2015/2016	0.4	-0.44	0.09
2016/2017	-0.9	-0.39	-0.6

Information :

ri = ratio of industrial production in Cirebon Regency  
 Ri = industrial production ratio of West Java Province  
 Ra = ratio of provincial industrial production

Can be seen in table 2 the production of the fishing industry in Cirebon Regency every year and experience fluctuations.

In 2013/2014 the percentage change was 0.15%, 2014/2015 was 0.44%, 2015/2016 was 0.09%, and the increase occurred in 2016/2017 next year from 0.09% to 0.64%. The percentage value of Cirebon Regency changes in 2015/2016 is higher than the percentage change in West Java Province.

Table 3 shows that the growth rate of the fisheries industry in Cirebon Regency is quite progersive, this is shown in the positive value of 2013/2014 2014/2015 and growth in 2015/2016, 2016/2017 is slow from year to year seen from negative values . and West Java Province can be said to have a slightly more progressive growth rate, this is indicated by a positive ratio value and not too much negative value. The value of Ra is the growth value of fisheries industry production obtained based on the calculation of the total difference in the production of fisheries industry in the base year of analysis

(2013) divided the total provincial fisheries industry production base year analysis (2013).

**Table 4. Components of the Cirebon Regency Fisheries Industry Share with West Java Province 2013-2017.**

Years	COPG
2013/2014	29.676,97
2014/2015	52.652,18
2015/2016	23.209,17
2016/2017	17.430,93

Description: COPG = Component of Proportional Growth

Component of Proportional Growth or Share Component is a component of economic growth which explains the increase in fisheries industry production at the provincial level with the Regency / City level (Ghufron 2008). The value of the share component is obtained from

the results between the production of the Cirebon Regency fisheries industry in the base year of the analysis with the value of Ra. Table 4 shows the value of the proportional growth component or share component. The KPP value of the fishery sector in Cirebon Regency with West Java Province shows a positive value. 2013/2014 with a value of 29,676.97, indicating the highest value of taxable income. 2014/2015 is worth 52,652.18, 2015/2016 with a value of 23,209.17 indicating the smallest value of KPP, and in 2016/2017 the value of KPP is 17,430.93. The sector that has a positive KPP value means that the sector's level of regional economic growth has resulted in growth in Cirebon Regency experiencing positive growth.

**Table 5. Components of the Mixture of Fisheries Industry in Cirebon Regency with West Java Province in 2013-2017.**

Years	PG
2013/2014	-5.950
2014/2015	3.452
2015/2016	3.274
2016/2017	-3.488

Description: PG = Proportional Growth

Table 5 shows proportional growth (PP) of the contribution of the fisheries industry to the province. Based on proportional (PP) growth in the fishing industry in 2013/2014 and 2016/2017 contributed negatively, namely 2013/2014

(PP value -5,950) and (PP value -3,488) shows that in that year the growth rate was slow compared to West Java province. In 2014/2015 (PP Value 3,452), 2015/2016 (PP value 3,274)

.. This shows that Cirebon Regency has a positive growth with  $PP > 0$ , so it can be concluded that in that year the growth rate of the Cirebon Regency fishing industry was faster than that of the West Java province.

**Table 6. Components of Competitive Fisheries Industry in 2013-2017.**

Tahun	RSG
2013/2014	26.881
2014/2015	-45.106
2015/2016	-133.445
2016/2017	81.859
Rata-rata	-17.453

Description: RSG = Regional Share Growth

Table 6 shows that the competitive component has a growth average value of -17,453, a value that shows that in general in the development of the last five years, 2013 to 2017, the fisheries industry in Cirebon Regency has not had a good fishery sector competitiveness compared to fisheries industry other regions in Povinsi West Java. Figure 6 shows the trend of developing the competitiveness of the fisheries sector in Cirebon Regency with other regions in West Java Province.

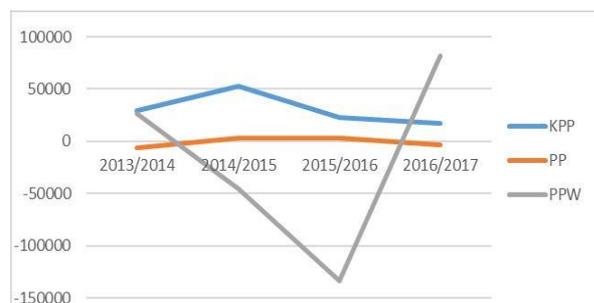


Figure 2. Trend of Share Component Value, Mix Components and Competitive Components.

**Table 7. Net Shift of Cirebon Regency Fisheries industry**

Years	Net Shift Year
2013/2014	268.745,9
2014/2015	-416.544,5
2015/2016	-130.170,65
2016/2017	78.371,35
Average	-166.447,88

Table 7 shows the net shift value of the Cirebon Regency fisheries industry with an average from 2013-2017 of -166,447.88. Fisheries industry production shows PB value <0, meaning that the fishing industry in Cirebon Regency has a slow growth rate. Based on the results of the development interview. the fishing industry tends to decline with production decreasing from year to year.

In order to improve the performance of the economic development of Cirebon Regency, the fishing industry has become the government's priority to get special attention. It cannot be used as a potential fishing industry in Cirebon Regency, so Cirebon Regency can be indicated as an area that is still lagging behind with other regions in the West.

## CONCLUSION

Based on research conducted on the Study of Potential Fisheries Industry in Cirebon Regency, it can be concluded as follows:

1. Potential Fisheries Industry in Cirebon Regency namely Freezing (LQ 1.48), Salting (LQ 1.69), Shading (LQ 1.18), Fermentation (LQ 1.14) and other processing (LQ 1.09) is an industry which if developed can become a potential industry in Cirebon Regency.
2. Shows the net shift value of the Cirebon Regency fisheries industry production with the average from 2013-2017 amounting to -166,447.88. fisheries industry shows PB value <0, meaning that the fishing industry in Cirebon Regency has a slow growth rate.

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