

FINANCIAL PERFORMANCE EVALUATION OF KERAPU SUNU (*Plectropomus Leopardus*) CULTIVATION ON FLOATING CAGE AT BINTAN TIMUR DISTRICT RIAU ARCHIPELAGO PROVINCE

PROF. DR. ZULKARNAINI, M.SI

Professor in Socio-economic of Fisheries Department
Faculty of Fisheries and Marine Science, University of Riau
Email : profegope@gmail.com

ABSTRACT

The research is intended to analyse financial performance kerapu fish cultivation which has been done in July to August 2014 in Bintan Timur District Bintan Regency. This research used survey method. The result of financial analysis showed that the cultivation effort was sufficient and gained profit. The average liquidity from all categories lied below criterion which showed that the cultivation needs to be aware because the condition to be able to pay the debt. The profitability ratio showed that the fish farmers' economic condition was below the current general interest hence they were not be able to gain high profit. The solvability ratio analysis showed that the bussiness financial condition was good and be able to pay the debt when in the below position. The activity ratio average was good because they can use the activa to sell in cash. The operation budget ratio average showed unsecure condition because lied above criterion 80%

Key word : Financial performance, Kerapu Sunu fish, Floating cage

INTRODUCTION

The fishing development in Indonesia aims to increase the farmers' prosperiority. One way to make it happen is by increasing the production and the productivity of fish cultivation to reach the high protein food self-sufficient to increase income and also to improve family nutrition. The increase of fish production can be done through fish catching and fish cultivation. The fishing development target is to improve fish cultivation efforts from simple to advance.

One of Bintan Regency waters location which has potential resources to be developed is Bintan Timur District. Bintan Timur District is one of the center of fish cultivation in Bintan Regency in developing the economy in that area. One of the fish bussiness carry out by the society is the cultivation of Kerapu Sunu (*Plectropomus leopardus*) in floating cage individually.

Based on the interview, the kerapu sunu fish farmers are still facing problems that are need a great amount of capital to run the bussiness, difficult to find the seed, and there are no transaction report nor financial report to know the financial performance.

Based on the problem faced by the kerapu sunu fish farmers in Bintan Timur District, this research is essential to be done to analyse the financial performance of the kerapu sunu cultivation at Bintan Timur District

RESEARCH METHOD

The research is conducted from July to August 2014 in Bintan Timur District Bintan Regency Riau Province. Bintan Timur District is the area of aquaculture which has many potencies to cultivate kerapu sunu fish (*Plectropomus leopardus*) in floating netting. The research used survey method. The population in this research is all fish farmers who cultivate kerapu sunu fish (*Plectropomus leopardus*) in floating cage at Bintan Timur District Bintan Regency as many as 6 farmers, because the number of population is so small, the writer will use census method or population total.

Financial data analysis use descriptive analysis with accountancy approach that is Bussiness Profitability Analysis (Profitability/ bussiness profit, Profitable Ratio / Rentability), Financial

Risk Analysis / Ratio Analysis (Liquidity Ratio, Solvability Ratio, Activity Ratio, Budgeting Ratio, Return Of Investment Ratio) Financial Proper Analysis (NPV, B/C Analysis, IRR).

Investation of the farmers are different depend on the size of the bussiness. The investation for kerapu sunu fish cultivation covers fixed financial capital and work capital

THE RESULT AND EXPLANATION

Financial Analysis of Kerapu Sunu Fish (*Plectropomus leopardus*) cultivation in floating cage at Bintan Timur District

Investasi = Investation

In general, Investation means expense used by investor to buy goods or service needed to run a production process in a single bussiness unit. According to Mahyudin (2010) investation is the amount of capital to start a bussiness.

Capital in bussiness can be used to earn more money or to increase production.

Fixed Financial Capital

Fixed financial capital is the amount of money for production cost to cultivate kerapu sunu fish (*Plectropomus leopardus*) which can be used for long time until it damage because of the age during the production process. In this kerapu sunu cultivation in floating cage, fixed capital consist of the cost of making the floating cage facilities, that are for making floating cage, making guard hut, and all tools and facilities. To know the avarage of fixed capital for kerapu sunu fish cultivation in floating cage at Bintan Timur District see table 1.

Table 1. Fixed Capital kerapu Sunu cultivation (*Plectropomus leopardus*) in floating cage at Bintan Timur District

No	Kinds of expense (Capital Goods)	Reduction/year (Rp)	
		Category I	Category II
1	Making floating net	10.875.000	14.375.000
2	Making making guard hut	2.301.000	2.301.000
3	Tools and facilities	9.650.000	9.650.000
Total		22.826.000	26.326.000
	Permanent Capital Each Harvest	3.352.000	7.404.000

Source : Processing Data. 2014

Table 1 showed that fixed capital each harvest (7-10 months) used by the farmers to run the bussiness in KJA (floating cage) in category I, the fixed capital was Rp. 3.352.000,-/ harvest, the farmers in category II the fixed capital was Rp. 7.404.000,-/ harvest. The bigger scale of bussiness run by the farmers, the bigger need of capital (Yulinda, 2012)

Work Capital

Beside permanent capital in floating cage cultivation, work capital is also needed

that is capital used to buy used up goods in one process of production. According to Kuswadi in Anastasia (2014) explained that the main factors for the needed of work capital is company activity which usually measured by the size of marketing planning and the fast of bussiness operation cycle. It means that the faster operation cycle the smaller the need of work capital. Work capital in kerapu sunu cultivation in floating cage consist of buying the seed, food and medicine as shown in table 2

Table 2. The Avarage of Work Capital each Harvest for Kerapu Sunu Fish Cultivation (*Plectropomus leopardus*) in Floating Cage at Bintan Timur District

No	Kinds of Expense	The Total of Work Capital (Rp/Harvest)	
		Category I	Category II
1	Kerapu seed	216.000.000	216.000.000
2	Buying food	36.000.000	36.000.000
3	Buying Medicine	160.000	480.000
Total		252.160.000	252.480.000
Avarage		84.053.333	84.160.000

Source: Processing Data. 2014

Table 2 showed that work capital each harvest (7-10 months) used by the farmers to run the bussiness in KJA (floating cage) in category I, the work capital was Rp. 84.053.333,-/harvest, the farmers in category

II the fixed capital was Rp. 84.160.000 ,- /harvest. Work capital is changable expense depend on the market price dan is a significant expense along with bussiness scale (Diana, 2012)

Table 3. The Investation Total for Kerapu Sunu Fish (*Plectropumus leopardus*) Cultivation in Floating Cage at Bintan Timur District

No	Investation (I)	The Avarage Total of Investation (I) (Rp/harvest)	
		Kategori I	Kategori III
1	Fixes Capital (MT)	22.826.000	26.326.000
2	Work Capital (MK)	252.160.000	252.480.000
Total		274.986.000	278.806.000

Source : Processing Data. 2014

Table 3 explained that investation total is the sum of fixed capital and work capital or variable capital needed by farmers in category I that is Rp. Rp.274.986.000,- /harvest, the farmers in category II Rp. 84.160.000 ,-/harvest. The bigger bussiness scale, the bigger investation needed (Anastasia,2014)

farmers consist of fixed cost and variable cost.

Fixed Cost

Kuswadi in Anastasia (2014) said that fixed cost is expense spent by fish farmers which remain the same though production volumes reach the highest limit, that is: tools production reduction cost per harvest. Because the number and kinds of tools used are different, the tools reduction cost for each farmer is different. For more details can be seen in table 4

Operational Cost

Mahyudin (2010) explained that operational cost is expense for production. The expense spent by kerapu sunu fish

Table 4.The Avarage of Fixed Cost of Kerapu Sunu Fish (*Plectropumus leopardus*) Cultivation in Floating Cage Each Harvest at Bintan Timur District

Farmer	Avarage of Fixed Cost (Rp/harvest)
Category I	3.352.000
Category II	7.404.000

Source : Processing Data. 2014

Table 4 showed that the avarage fixed cost used by kerapu sunu fish farmers in floating cage is different in each category that is Rp. 3.352.000 in category I and the farmers in category II Rp. 7.404.000,-/. The different amount of fixed cost is caused by the amount of capital used. The bigger capital used, the bigger fixed cost as said by Sinuraya in Anastasia (2014)

Variable Cost

The variable cost is the cost spent by fish farmer which the amount of money is determined by production total. The variable cost is used to buy seed, food and electricity. To know the cost to buy seed, food and electricity in kerapu sunu fish cultivation in floating net at Bintan Timur District, we can see table 5

Table 5. The Average of Variable Cost Kerapu Sunu Fish (*Plectropumus leopardus*) Cultivation in Floating Net at Bintan Timur District

No	Kinds of Expense	The Avarage of Variable Cost (Rp/harvest)	
		Category I	Category II
1	Kerapu seed	216.000.000	216.000.000
2	Buying food	36.000.000	36.000.000

3	Buying medicine	160.000	480.000
	Total	252.160.000	252.480.000
	Avarage	84.053.333	84.160.000

Source : Processing Data. 2014

From table 5 can be seen that the average of variable cost each harvest (7-10 months) farmers in category I to cultivate kerapu sunu in floating net is Rp. 252.160.000,-/ harvest and for farmers category II is Rp. 252.480.000,-/ harvest. The amount of variable cost is influenced by the bussiness scale. The varaabe cost used by farmers in category II is higher because their bussiness scale is bigger than farmers

in category I, beside, the expense for seed, food and medicine are significant expense in kerapu cultivation (Afero, 2009)

Production Total Cost

Production total cost is the sum of fixed cost and variable cost. To know the production total cost of kerapu sunu fish cultivation in floating net at Bintan Timur District, see Table 6

Table 6. The Avarage of Kerapu Sunu Fish (*Plectropumus leopardus*) Cultivation in Floating Net at Bintan Timur District Production Total Cost

No	Production Cost	The Avarage of Production Total Cost TC=TFC+TVC (Rp/Harvest)	
		Category I	Category II
1	Fixed Cost	3.352.000	7.404.000
2	Variable Cost	252.160.000	252.480.000
	Total	255.512.000	259.884.000

Source : Processing Data. 2014

The production total cost per harvest (7-10 months) used by farmers in category I is Rp. 255,512,000,- and the production total cost used by farmers in category II is Rp. 259.884.000,-. Variable cost significantly affect the income because it is the biggest expense in production process (Diana, 2012).

The Analysis of Profitability of Kerapu Sunu Fish Cultivation at Bintan Timur District

Gross Income

According to Soekartiwi in Anastasia (2014), the gross income is the multiply of production and market price. To know the gross income of kerapu sunu fish cultivation in floating net at Bintan Timur District see Table 7

Table 7. The Avarage of Gross Income of Kerapu Sunu Fish (*Plectropumus leopardus*) Cultivation in Floating Net at Bintan Timur District for Each Harvest

Farmers	Gross Income(Rp/Kg) TR = q x p
Category I	278,200,000
Category II	283,530,000

Source : Processed Data. 2014

From table 7 is known that the average gross income of kerapu fish farmers in floating net in category I is Rp. 278.200.000,-/ harvest and the kerapu sunu fish farmers in floating net incategory II is Rp. 283.530.000,-/ harvest. The amount of gross income is influenced by bussiness scale. Hence, the gross income gained by farmers in category II is bigger than farmers in category I because their bussiness scale is bigger and they can earn more gross income (Anastasia, 2014)

Net Income (NI)

Sugiarto in Diatin and Kusumawardany (2010) said that net income (NI) is the difference of gross income and production total cost. The amount of net income earned by the fish farmers can influence the run of the bussiness. To know the net income earned by kerapu fish farmers in floating net at bintan Timur District see table 8

Table 8. The Average of Net Income of Kerapu Sunu Fish (*Plectropomus leopardus*) Farmers in Floating Net at Bintan Timur District Per harvest

No	Farmers	TR (Rp/harvest)	TC (Rp/harvest)	NI=TR-TC (Rp/harvest)
1	Category I	278.200.000	255.512.000	22.688.000
2	Category II	283.530.000	259.884.000	23.646.000

Source : Processed Data, 2014

The average of Net Income each harvest (7-10 months) gained by the farmers in category I Rp. 22.688.000,-/harvest and the farmers in category II is Rp.23.646.000,-/harvest. The bigger the total of cost production, directly effect the profit gained (Ibrahim, 2009).

Profitability Ratio / Rentability

Profitability Analysis is used to measure the company ability in gaining profit in a certain of time. A good profitability Analysis will increase company position and decrease bankrupt possibility (Hariri 2010).

Table 9. The development of The Value of Profitability Ratio of Kerapu Fish (*Plectropomus Leopardus*) Cultivation at Bintan Timur District

No	Farmer	Profitability Ratio
1	Category I	9.01%
2	Category II	9.36%
	Avarage	9.18%

Source : Processed Olahan, 2014

Table 9. showed that rentability in category I is 9.01% means that from capital total spent was Rp. 252.160.000 peryear be able to earn profit 9.01% or around Rp. 22.688.000/peryear. Rentability in category II is 9,36% means that from capital total Rp. 252.480.000 be able to earn profit Rp. 23.646.000 peryear or 9,36% from capital total. Profitability Ratio showed that the farmers not be able to earn a high profit, because the value is below the bank interest (12%) (Hariri, 2010).

Financial Risk Analysis / Ratio Analysis

The measurement of a project is important in Capital Budgeting as a whole process. With the ability to measure the risk in each project, an individual will be able to determine the difference of return level (Sunaryo, 2010). Financial Risk Analysis consist of Liquidity ratio, Solvability Ratio, Activity ratio, Operation Cost Ratio and Return of Investment (*ROI*)

Balance

Company activa composition and capital and debt composition put together in a report called balance (Hariri, 2010).

Based on the balance in Table 10, Kerapu Sunu Fish cultivation in category I per 31 July 2014 had activa total (swift assets and fix assets) Rp. 7.079.950,- the obligation was Rp. 2.125.000,- which was the debt has not yet paid to group management in kerapu sunu production. Capital per 31 July 2014 was Rp. 2.250.000,- which came from group capital and profit supply 30 % from net profit perharvest. Category II had activa total (swift assets and fix assets) Rp. 8.136.350,- the obligation was Rp. 2.250.000,-. Capital per 31 July 2014 was Rp. 4.400.000,- which came from group capital and profit supply 30 % from net profit perharvest.

Table 10. The Financial Balance of Farmers of Kerapu Sunu (*Plectropumus leopardus*) at Bintan Timur District Per 31 August 2014

	Category I	Category II
Activa		
Swift Activa		
Treasury	73.950,-	517.850,-
Seed Supply	2.287.500,-	2.200.000,-
Total of Swift Activa	2.361.450,-	2.717.850,-
Fix Activa		
Floating Net	3.518.500,-	3.518.500,-
Net	700.000,-	1.400.000,-
Small boat	500.000,-	500.000,-
Total of Fix Activa	4.718.500,-	5.418.500,-
Total of Activa	7.079.950,-	8.136.350,-
Oblogation and Capital		
Obligation in Short Term		
Debt	2.125.000,-	2.250.000,-
Total of Obligation	2.125.000,-	2.250.000,-
Capital		
Modal Spent	2.250.000,-	4.400.000,-
Profit Supply	386.400,-	550.800,-
Total Modal	2.636.400,-	4.950.800,-
Total Passiva	4.761.400,-	7.200.800,-

Source : Prime and Processed Data, 2014

Liquidity Ratio

Liquidity ratio analysis will show the position of short term financial, means

that financial position describe the company ability to pay its short time (Afriyeni, 2008)

Table 11. The Value of Liquidity Ratio Kerapu Sunu Fish (*Plectropumus leopardus*) Cultivation in Floating Net at Bintan Timur District

No	Farmers	Liquidity Ratio (%)
1	Category I	1.12
2	Category II	1.21
	Avarage	1.2

Source : Processed Data, 2014

In Table 11. Liquidity ratio in category I is 1,12% means that for a debt Rp. 1.000.000 will be guaranteed by asset Rp. 1.120.000, but liquidity ratio in category II is 1.21% means that for a debt Rp. 1.000.000 will be guaranteed by asset Rp. 1.210.000. Liquidity Ratio in each category

showed that the bussiness in the level of aware because liquidity presentation between 1,1 until 1,5, means that the bussiness must be careful because it in the the level of minimal limit to be able to pay its debt using swift assets (Afriyeni, 2008).

Solvability Ratio.

This Ratio showed the ability of a company to fulfill its financial obligations if

the company was liquidated (Hariri, 2010). The solvability ratio can be seen in table 12.

Table 12. The Value of Solvability Ratio in Kerapu Sunu Fish (*Plectropumus leopardus*) Cultivation in Floating Net at Bintan Timur District

No	Farmers	Solvability Ratio (%)
1	Category I	8.30
2	Category II	9.05
	Rata-rata	8.67

Source: Processed Data, 2014

In Table 12. Solvability ratio in category I is 8.30%, but Solvability ratio in category II is 9.05%. Category II has a bigger Solvability ratio, means that the farmers in this category has more debt than farmers in category I. This was caused by the loan for developing the bussiness is higher (Boya, 2014), and also the production volume was bigger than category I

Activity Ratio

This ratio shows the level of company effectiveness in spending all assets to produce income or describes how much money the net income comes from each rupiah spent in the form of company treasure. (Hariri, 2010). Activity Ratio can be seen in table 13.

Table 13. The Value of Activity Ratio in Kerapu Sunu Fish (*Plectropomus leopardus*) Cultivation in Floating Net at Bintan Timur District

No	Farmers	Activity Ratio (%)
1	Category I	39.30
2	Category II	34.84
	Rata-rata	37.07

Source : Processed Data, 2014

Based on the calculation of this activity ratio, farmers in the category I and II is 39.30 dan 34.84 because the sell is bigger than the total assets. The bigger ratio will be better because be able to use every rupiah in the assets to earn money. The mean of this ratio is 37.67 means that the bussiness is good enough because it can use all assets to earn more money (Hariri, 2010).

The Ratio of Operation Cost

The ratio of operation cost is a ratio to measure the level of effeciency and the ability of bussiness to run its operation activity (Syamsuddin, 2004). The Ratio of activity can be seen in Table 14.

Table 14. The Value of Operation Cost Ratio (OER) of Kerapu Sunu Fish (*Plectropomus leopardus*) Cultivation in Floating Net at Bintan Timur District

No	Farmers	Operation Cost Ratio (%)
1	Category I	90.63
2	Category II	89.04
	Rata-rata	B9.98

Source : Processed Data, 2014

The value of Operation ratio in category I is (OER) 90,63% means that every income Rp. 1.000.000 operational cost needed is Rp. 963.000. The Ratio (OER) in category II is 89,04% means that every income Rp. 1.000.000 operational cost needed is Rp. 890.400,-. The mean value of operational is 90.63% which mean the condition of the bussiness is not save, and

did not gain alot of profit (Syamsuddin, 2004).

Return of Investment Ratio (ROI)

Return of Investment Ratio (ROI) is the profit gained from every money invested in a bussiness in a certain period of time (Tim penulis PS, 2008). Ratio *Return Of Investment* (ROI) can be seen in table 15.

Table 15. The Value of ROI of Kerapu Sunu Fish (*Plectropomus leopardus*) Cultivation in Floating Net at Bintan Timur District

No	Farmers	ROI (%)
1	Category I	8.25
2	Category II	8.48
	Avarage	8.37

Source : Processed Data, 2014

In table 15 the avarage ratio is 8,37% means that every Rupiah assets invested will gain profit Rp 8,37. A general standard is used 12% bank interest. By mean

8,37%, the bussiness are not be able to gain profit from the budget invested. The value is below the bank interest so it was not attract

investor because the level is not save and high risk (Boya, 2014).

Financial Proper Analysis

The purpose of doing financial proper analysis is to know whether the kerapu sunu fish cultivation at Bintan Timur District is good enough to be developed or

not (Setyaningsih, 2011). By seeing the three criteria of investation that are Net Present Value (NPV), Benefit Cost Ratio (Net B/C), Internal Rate of Return (IRR). The calculation of financial proper consist of NPV, IRR, B/C Ratio in normal condition can be seen in Table 16.

Table 16. The Calculation Result of Financial Proper of Kerapu Sunu Fish (*Plectropomus leopardus*) Cultivation in Floating Net at Bintan Timur District

Farmers	The Components of Bussiness Proper	Analysis Result	Criteria	Note
Category I	NPV (df 12%)	20,257,143	>0	Proper
	B/C Rasio	1.08	>1	Proper
	IRR	13%	>12%	Proper
Category II	NPV (df 12%)	21,112,500	>0	Proper
	B/C Rasio	1.09	>1	Proper
	IRR	13%	>12%	Proper

Source: Processed Data, 2014

Table 16 the NPV value from a project is a current value of the different of total income and total cost in discount specific factor (Mariyah, 2010). NPV value of farmers in category I is Rp. 20.257.143, means that the investation will give Rp. 20.257.143, but farmers in category II has NPV value Rp.21.112.500, means that the investation will give Rp. 21.112.500, Kerapu Sunu fish cultivation in every category proper to be developed because the NPV value is more than 0

B/C Ratio Analysis is a comparison of gross income and total cost (Ibrahim, 2009). The calculation of B/C ratio in category I is 1.08, means that for every Rupiah / money will earn Rp.1.08, but in category II the B/C ratio is 1.09, means that $B/C > 1$ the bussiness is proper or good enough to be done (Taufik *et al*, 2013).

IRR value is an investation criterion to state the profit persentage from a project by using specific discount factor (Mariyah, 2010). IRR value got by the farmers in category I is 13 %, means that the bussiness will produce avarage income 13% in a year from invested money. And also for farmers in category II which has the same IRR value.

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This bussiness is good enough or proper to be done because it be able to produce 13 % profit in the 12 % bank interest. (Zulkifli, 2006).

CONCLUSION

Financially, every farmer in avarage gained profit in one harvest season and good enough to be continued. The avarage liquidity value in both category is 1,1 is below the standar (1,5) that show the bussiness must be aware beavause it is in minimal secure level to be able to pay its swift debt. Profitability ratio shows that the farmers finacial is not be able to earn alot of profit because it was below the bank interest.

Solvability Ratio Analysis shows the financial condition is good and be able to pay all the obligations because it is in below criterion. The activity ratio is good enough because it can use its assets to make the selling and the selling is not in credit form. The avarage value of operation cost shows the save condition because it is in above criterion 80%.

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