SOCIO-ECONOMIC FACTORS CAUSE OF OPERATING PROFIT ANIMAL FALLING RATE OF AFRICAN CATFISH (Clarias Gariepinus) TARPS SWIMMING IN CANGKRING VILLAGE, SUB- DISTRICT OF JENGGAWAH, DISTRICT OF JEMBER

by Nurul Fathiyah Fauzi

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Nurul Fathiyah Fauzi and Syamsul Hadi

Lecturer Faculty of Agriculture University of Muhammadiyah Jember, Jl. Karimata No. 49 Kotak Pos 104 Jember 68121 East Java Province, Indonesia

e-mail: rhanu_fauzi@yahoo.com

Abstract

The purpose of this study is included: Analyzing the socioeconomic factors that caused the decrease in livestock farming profits tarp African catfish ponds in the study area; Knowing the profit rate of African catfish farming pond tarp in the study area, and analyze the level of efficiency of African catfish pond fish farming sheeting in the area of research both allocative efficiency technical and economical. Furthermore, to achieve the three objectives referred to, then usedquantitative descriptive method with survey techniques The population in this study were African catfish pond fish farmers in the village tarp Cangkring Jember District of Jenggawah efforts that have experienced a declining rate of profit. The data analysis technique used is the analysis of Cobb - Douglass function of profit , and the frontier production function analysis of profit. The results of this study concluded : 1) socio-economic factors are thought to influence the profit decline in fish farming catfish pond tarp at the sites run significantly at 5 % significance level α with the level of determination of 0,618; 2) The average rates of profit breeders catfish in the study site is IDR 1.255.000,85 per business scale or as much as IDR 484.556,31 per 1,000 fry the profitability of 42.38 %, and 3) average use of all inputs in the production of African catfish farming has a pool tarp technical efficiency of 2,11, at 6,36 allocative efficiency and economic efficiency level of 13,43.

Keywords: Eficiency , Profit , Frontier , Swimming Sheeting, and Organic.

BACKGROUND

Basically catfish with a model pool tarp relatively low cost, only with approximately less than IDR 500,000 for the creation of a pool tarp with tarp size of 5 x 4 m below lelenya fingerlings, catfish peteni already will be able to enjoy the benefits of his efforts with abundant. Cultivation process with this pattern actually has a value of economic empowerment of village communities, namely from the manufacture of pool community involving some villages, such as for cutting bamboo, leveling the ground, transporting organic fertilizer, and so forth. Selanjutya no fertilization process to grow the microorganisms that will become food catfish, catfish farming is done because using techniques largely inorganic and organic as well as some others do as well liming to neutralize the pH of pool water.

Since the beginning of african catfish farming in the village Cangkring of Jenggawah Caounty Jember District of went as expected, but in its development during the last 2 years, these fish tend to lethargy. Yet on the other hand catfish demand continues to increase over time, but the phenomenon is contrary to the logic of the law of demand - supply. The higher the demand for a goods and services, then the price of the goods goes up due to the amount of goods on offer tend to be a little (Soediyono, 1995). African catfish prices at the consumer

level in Jember in 2014 reached IDR 15,000, - per kg, but in 2013 only reached IDR 9,000, - per kg. According to the results of the analysis of farming, that BEV African catfish is IDR 11,500, - per kg, the price of feed manufacturers and even then with a steady (constant). But the longer, the more catfish feed prices surged, while for alternative solutions such as snails, slugs and dead chickens, its existence does not guarantee to meet the needs of animal feed catfish.

Catfish farmers in the village have not had Cangkring initiation and innovation strategies in solving problems. The absence of a group of farmers, causing bargaining power and access to information and technology and capital are quite weak. They are very dependent on the strength of her each sharp without being able to think of the potential outside himself. Therefore, Hernanto (1996) states that what is revealed is not actually the presence of other factors on the farm itself and which is beyond the farmers' efforts. Which should be of concern to an established farming, keter¬batasan that exist in itself to be overcome by digging to opportunity outside environment. In fact not just dig, even more should be able to express the force push and overcome the factors outside. The scope of this study is limited only issue african catfish (Clarias gariepinus) through the media pool tarp. The object of research is the variety of African catfish farmer who manages his farm in Cangkring Village of Jenggawah County of Jember District.

Based on the above description, it is a problem in this study plan can be formulated as follows: what are the socioeconomic factors that caused the decline in the profit rate of African catfish farm animals in the study area pool tarp ?; What degree of business profits teknak African catfish rehabilitated and reconstructed media pool tarp in the study area?, And How the level of efficiency of African catfish pond fish farming in the study area tarp ?. Therefore, it is the goal of this research is: Analyze the socioeconomic factors that caused the decline in the rate of profit animal breeding African catfish pond tarp in the study area, knowing the level of business profits through media teknak African catfish pond tarp in the study area; and analyze the level of efficiency of African catfish pond fish farming in the study area well tarp allocative efficiency, technical and economical.

METHODS

Location Research

This research has been conducted in Cangkring Village of Jenggawah County of Jember District. Determination of the location of this research was determined by purposive sampling on the following considerations (Jember Statistics Office, 2014) that the number of African catfish pond fish farmers in Jember tarp in the village of Cangkring District of Jenggawah them there in the village. Another consideration is the livestock farmers in the sub district Jenggawah catfish hardest hit and many have gone out of business due to the cost of production exceeds the total income.

Sampling Techniques and Data Collection

This research is a descriptive study, the research aims to describe the events (phenomena) as a systematic, factual and accurate information on the facts, properties and relationships between phenomena that occur in the present. Meanwhile, the method used in this study is a survey method. Furthermore, the method of determining the sample taken by simple random sampling of at least 10% of the population and sources of data collected in this research plan includes primary data and secondary data.

Data Analysis (Model Specifications)

Answering the First Goal (Gain Function Cobb-Douglass)

To answer the first goal of socio-economic factors causing the decline in the profit rate of African catfish farming used analysis tool Function Cobb-Douglass advantage. Gains of African catfish farmers received were analyzed by a simple mathematical formula can be formulated as follows (Soekartawi, 2003): □ = TR - TC. Furthermore Frontier Production

Function is used to describe the relationship between inputs and outputs in the production process to determine the level of production efficiency (Battese dan Corra (1977 in Coelli, et al., 1996) as follows: Ln Y = b0 + b1LnX1 b2LnX2 + b3LnX3 + b4LnX4 + b5LnX5 + (Vi – Ui). Frontier production function is estimated using a stochastic frontier production function method (Stochactic Frontier Production Function), which is obtained using a Maximum Likelihood Method. Efficiency is a concept that is relative. A situation that is economically efficient, may be inefficient when faced with different sizes (Zen, 2002). There are three concepts of efficiency, ie the efficiency of the technique (ET), economic efficiency (EE), the efficiency of the price (EP). Economic efficiency will be achieved when the technique has achieved efficiency and price efficiency. If the value of the efficiency of > 1 means the use of inputs needs to be improved, if the value of efficiency = 1 means that the optimal input allocation, if the value of the efficiency of <1 means the use of inputs need to be reduced (Soekartawi, 2003). To test this hypothesis, if the value of efficiency (technical, price, and economic) average is not equal to one, then the hypothesis is accepted.

Simply put, according Nopirin (1997), the efficiency can mean the absence of waste. Efficiency price / allocative efficiency by Soekartawi (2008), used when the production function is Cobb-Douglas function, then: Y = AXB or Ln Y = A + bLnX Ln, then the marginal production conditions are: ∂Y / ∂X = b (The coefficient of elasticity parameters). In the Cobb-Douglas production function, then b is called the regression coefficient which also illustrates the elasticity of production. Thus, the marginal production value (MPV) production factor X, can be written as follows: MPV = bYPy / X, where: b = elasticity of production, Y = the production, Py = price of production, and X = the number of production factor X. According to Nicholson (1995), the efficiency achieved when the price comparison between the marginal productivity of each input (MPV xi) at a price of inputs (Vi) or "Ki" = 1. this condition requires MPVxi the same as the price of a factor X or can be written as follows: MPV = Px, bYPx / X = Px, or bYPy / XPx = 1 where: Px = price of a factor X. In practice the value of Y, Py, X and Px is taken the average value, so that the equation becomes: bYPy/ẋPx = 1, Technical efficiency is done through an approach using the approach of the ratio of the variance as developed by Battese and Corra (1977) in Coelli (1996): γ = (ζu2) / (ζv2 + ζu2), if γ close to 1, ζv2 near zero and Ui is the error rate in the equation shows inefficiency. In this study, the differences between the management and the results of efficiency is the most important part because kekhusussan management. Furthermore, this analysis to identify the impact of differences in several factors.

Jondrow et all in Zen et al, (2002) shows the average conditions in Ui and εi in the following equation: E (Ui I εi) = (ζu ζv / ζ) {[F (εi λ ζ-1) / (1-F (εi λ ζ-1))] - (εi λ ζ-1), where: εi = is the sum of V1 and Ui, ζ = is the equation for (ζv2 + ζu2) 1/2, λ = is the ratio of ζu and ζv, f and F is the standard normal density and distribution functions εi evaluation of λ ζ-1. To get technical efficiency (TE) of catfish farming can be done with the following calculation: TEI = exp [E (Ui I εi)], where: 0 ≤ TEI ≤ 1, TE is the efficiency of the technique and Exp is the exponent. Meanwhile, according to Wardani, Musofie and Harwono, (1997) that economic efficiency is the product of the entire technical efficiency and allocative efficiency of the entire price or input factors. Efficiency catfish farming can be expressed as follows: EE = TER. AER, Where: EE = Economic Efficiency, TER = Tehnical Efficiency Rate, and AER = allocative efficiency Rate.

RESULT AND DISCUSSION

Profile of Respondents

The description of the profile of respondents to be covered include: aspects of age, education level, and the long experience of trying and business scale is measured from the broad aspects of the pool and the number of African catfish fingerlings. The average age of the respondent farmers in the traditional market research sample was 42,97 years, which means

all respondents were in the productive age (15-64 years). Age of a person in the group is physically and mentally able to work and strive optimally. It found that the majority (76,67%) of respondents have adequate physical strength and mental stable so inclined can run the business well. The average level of formal education of respondents breeders known to work only 9,97 years or have graduated from junior high school and even some have been mengeyam up to high school. Meanwhile, the average length of experience of trying to trade the respondent farmers in the African catfish location is still ongoing research is conducted within a period of 3,5 years. The results of the study revealed that most (80%) of respondents have experience cultivating farmers catfish in the pond tarp is still less than 5 years and only 3,33% of respondents classified as having high-flying craft fishing in running this business. Furthermore, the average production capacity of African catfish pond fish farmers just tarp totaled approximately 3000 fingerlings of the tail, with the range between 1000 sd. 5000 Tails on large scale pool tarp average of 23,67 m2 ranging from size 4 to 54 m2.

Socio-Economic Factors Cause of decline in rate of return

To answer the first goal of socio-economic factors causing the decline in the profit rate of African catfish pond fish farming tarp then used analysis tool Function Cobb-Douglass advantage.

Table 3.1 Results of Regression Analysis of Economic Factors Cause of decline in social, Livestock Business Advantage Swimming Sheeting Dumbo Catfish in the Cangkring Village of Jenggawah County District of Jember 2015

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1763.443	816.159		2.161**	.042
Quantity	1.196	0.570	0.529	2.097*	.048
Price_Output	68.350	56.014	0.278	1.220*	.096
Price_Nutritions	-3.390	0.150	-0.482	-2.601***	.017
Educations	2.665	14.881	0.038	0.179 ns	.860
Olong experience	29.306	20.463	0.266	1.432 ns	.167
Frequency extension workers visit	23.234s	26.529	0.162	0.876 ns	.391
Market information	171.997	92.899	0.317	1.851*	.078

Remarks :
Dependent Variable : Profit
F-tabel(α5%/2) : 2.04, Adjusted-R Square : 0.618, R-Square : 0.719
*** = Significant at α1%, ** = signifkan on α5%, * = Significant at α10%, ns = non-significant
Source: Primary Data Processed

Table 3.1 above shows that the results of the simultaneous regression of all independent variables significantly influence the dependent variable at 5% significance level α. This is demonstrated by the results of the analysis where the value of the F-count > F-table, so the conclusion is to accept Hi or reject H0. If the results of the regression analysis if the equation is written, it will wake up the model equations profit function as follows:

Y = 888.99 X11.196X268.35X3-3.39X42.66 X529.31 X623.2 X7-8.81D171.99.

The test results of determination or closeness relationship between the variables analyzed, also shows that all the socioeconomic factors that are supposed to influence the dependent variable is quite high at 0,719 R2 or with Adj-R2 0,618. This means that the decline in African catfish farmers profit pool tarp at the study sites is affected by all the independent variables were estimated at 71,9%, the rest is influenced by other factors outside the model. Furthermore, each of the independent variables were regressed against the dependent variable to determine partially the keberartiannya. Proven results of t-test that the variable education level of respondents, farming experience and the frequency of

visits to the site workers visit catfish farming in the study site had no significant effect on the falling rate of profit breeders at 10% significance level α. The length of experience raising African catfish also empirically at the study site was not much take effect to business management resulting in higher profits. In addition, the success factor of the workers visit field visits also did not affect the level of benefit farmers, ranchers already visited because without innovation and the creation of a self-taught without any coaching or mentoring. Therefore, the three independent variables can be compiled into a single independent variable is the variable that management influence on the dependent variable can be significant.

Total production of African catfish fairly significant influence on the level of farm profit, it is supported by the results of a simple regression analysis where t count> t-table at the 10% significance level α. In this economic logic is appropriate karen if the amount of production increased by 1%, then the farmer will profit also rose by 1,196% with cateris paribus assumption. Similarly, the sale price in the African catfish farmer level significantly affected the rate of profit breeder shown by the results of t-test with a value of t count> t-table at the level of 10% and a coefficient value of 1,196. This means that if the selling price was up 1%, then the rate of profit increases by 1,19%. Market information variables also significantly affect the increase farmer profits on real and often aloof sphere α 10% with a value of 171,99 koefieisn regression. Various information regarding the price of feed, the price of the product, market demand, technological innovation development outside and relevant government policy strongly encourages farmers to better manage their business premises, so that the output value of animal husbandry of African catfish tend to be higher than without receiving information from the outside. The above explanation is strongly supported by the fact, as shown in table 3.2 below.

Table 3.2 Supporting Data in Regression Analysis of Economic Factors Cause of decline in social, Livestock Business Advantage Swimming Sheeting Dumbo Catfish in the Cangkring Village of Jenggawah County District of Jember 2015

No	Social economic factor	description reason	number of Respondents (people)	%
1	The cost of feed is too high	Manufacturing type PF 800, 781 -1, 781-2 and 781-3, P 1000 and Hibrofit	14	47
		Non Manufacturing (Chicken Tiren, leaves, conch,, worms, Apmas know, Lemuru, bran / bran, anchovies Pabriotik and anchovy	11	37
		Mixture (Manufacturing and Non-Manufacturing	5	17
2	The portion of the cost of inputs for very high feed allocation	The portion of 50%	5	17
		The portion of 60%	13	43
		The portion of 70%	6	20
		The portion of 90%	1	3
3	Production rates are relatively low	Under Rp 10,000 /kg	3	10
		Between Rp 10,000 - 13,000/Kg	18	60
		Above Rp13,000/Kg	9	30
4	Motivation Breeders in African catfish pond tarp	Looking for high profit	7	23
		On their own initiative	7	23
		Try affected friend	12	40
		Filling the void time	1	3
		Following the suggestion extension workers	3	10
5	Frequency of visits to the field officer field	No visit yet nev	17	57
		've Been only 1 time	6	20
		've Been between 2-3 times	3	10
		've Been more than 3 times	4	13

Source: Primary Data Processed

In Table 3.2 above gives an example on its significant variable input prices significantly affect the rate of profit in the African catfish farming livestock research sites on the real level of 1%. Regression coefficient value implies that the rise of prices of production inputs by 1%, then the rate of profit will decline by 3,39% assuming cateris paribus. This condition is supported by the fact that as many as 47% of farmers use feed ingredients manufacturers and most of the others (17%) using a mixture of feed materials (manufacturers and non-manufacturers) and the rest (37%) using a non feedstuff manufacturer. It is known that the price of feed manufacturers from time to time is up so make kendalan serious for farmers. Even the use of feed manufacturers with a portion of 90% of all types of feed available, done by 3% of farmers and the lower portion (50%) is only done by 17% of farmers alone.

On the other hand, the price of production of the African catfish lowest is IDR 10.000,- / kg only accepted by 10% of respondents, the highest price of IDR 13.000,- / kg only 60% of respondents who received the selling price of IDR 12.000,- / kg. Though the price of the product on the market at the same time generally prevailing price of between IDR 14.550, - Rp 16.000,- / kg. These conditions have implications for the declining rate of profit breeders so analsisi simple regression results indicate that these variables are very significant effect on the rate of profit to the African catfish farming livestock to be proportionate reversed pattern of influence.

Gain levels African Catfish Farming Livestock Pool Tarp

Average farm production of African catfish pond tarp in the study site reached 248,83 kg per production process per 2.590 fry fish or fish seed per 1.000 the average number of production as much as 96,07 kg per production process. This production is done on an area of the tarpaulin 31 m3 with an average stocking of fish as many as 827 individuals per 357 m3 by spreading the tail - tail 2.083,33. According to the recommendation that the per cubic meter pools, the amount of fish seed to be stocked between 350-500 tails to create comfort for fish habitat. But the facts on the ground proved to be very varied, there is sow the seeds of fish between 1000 - 3000 individuals per cubic meter. Learn more about the state of the profit rate of African catfish pond uahatani tarps are presented in Table 3.3.

Table 3.3 Results Analysis of Livestock Farming Gains Swimming Sheeting Dumbo catfish in the Cangkring Village of Jenggawah County District of Jember 2015

No	Descriptions	Total	Production Cost Structure (%)
1	Productions (Kg)	248,83	
2	Price of Output (IDR /Kg)	12.191,67	
3	Total Cost of Product :	1.706.632,48	
	a. Variable Cost (IDR)	1.345.709,48	78,85
	b. Fixed Cost (IDR)	360.922,95	21,15
4	*Revenue (*IDR*)*	2.961.633,33	
5	*Profit (*IDR*)*	1,.255.000,85	

Source: Primary Data Processed

Average profit rate of catfish farmers in the study sites is IDR 1.255.000,85 per scale enterprises or as much as IDR 484.556,31 per 1.000 fry. These advantages are relatively high because of profitability of 42,38% when compared to the results of research AZ-Zarnuji and Hendarto (2011) in Boyolali in 2010 where rentabilitasnya reached 37,02%. According to the theory that every African catfish stocking of 1.000 fish tail, it will produce 100 kg of fish ready for harvest, but the results of the study revealed that on average each stocking 1000 fish tail meat produce ready to harvest as much as 116,23 kg weight ratio of 1: 1,16.

The above conditions are true average quantity of production that farmers already produce a fairly high compared with the general average in other areas. If viewed from the aspect of R/C ratio that catfish farming also has a value of R/C ratio than the condition of the research results in Boyolali, which in the study area has a R/C ratio is 1,74 and sebasar in

Boyolali as big as 1,59. That is to say with an average price of only IDR 12.000 per kg, cattle farm of African catfish pond tarp at the study site has a potential prospect, because it gives a high enough profit to farmers.

Economic Efficiency of Livestock Raising African catfish Swimming Sheeting

Based on the analysis of the rate of profit in the previous sub, it is necessary also analyzed the level of efficiency by using the approach of cobb-douglas production function. In this analysis will be revealed about how the attainment of economic efficiency, technical and allocative. Selengkapkanya the results of the efficiency analysis is presented in Table 3.4 can be the following.

Table 3.4 Efficiency Analysis of Farm Animal Swimming Sheeting African catfish in the Cangkring Village of Jenggawah County District of Jember 2015

No	Variable	Technical efficiency (bi)	allocative efficiency	Economical efficiency (ET x EA)
1	wide pool	3.15	3.17	10.00
2	fingerlings	2.568	6.99	17.95
3	Nutrients	-0.176	0.19	(0.03)
4	additional nutrients	-2.128	1.89	(4.02)
5	Suplement	5.706	6.72	38.34
6	Labor	3.531	5.19	18.33

Specification:
Dependent Variable: Number of African Catfish Production
Source: Primary Data Processed

The average utilization of all production inputs on African catfish farming pool tarp in the study site reached a level of technical efficiency of 2,11, but when viewed as an input of production is known that the use of production inputs and livestock feed supplement inefficient because Ep < 0 Breeders grossly over dose in food nutrition in fish. Generally provide 3 meals a day, but the average farmer in most study sites provide meals up to 5 times a day. As a result, the cost to feed only up 80% in the cost structure some respondents even reach 90% of the cost of the other. The use of production inputs of seeds / seedlings fish, large pool tarp, supplements, medications, vitamins and labor are still not efficient. That is perternak still can develop longer use in order to increase production.

In allocative, use of production inputs in livestock farming of African catfish pond tarp in the average study site has not efficient, except for the use of fish feed is no longer efficient. So inefficient allocation still can add inputs and the need for a reduction in the use of production inputs that are no longer efficient. Therefore, the average of a use of production inputs have a level of economic efficiency of 13,43 where the use of animal feed and food additives from the snail, tiren, and lemuru have negarif level of economic efficiency. If dikomparasikan research AZ-Zarnuji and Hendarto (2011) on the analysis of the efficiency of catfish farming in Boyolali concluded that: 1) catfish farming in the study area are not technically efficient use of inputs that must be coupled with the output destination must be increased. When viewed from the efficiency of the price (EH) and economic efficiency (EE), the catfish farming is inefficient with efficiency value of 4.96 and a price of economic efficiency by 4,66.

CONCLUSION

1 The results of the simultaneous regression of the entire socio-economic factors are supposed to influence the profit decline in African catfish farming fish pond tarp significant effect at 5% significance level α. This is demonstrated by the results of the

analysis where the value of the F-statc. > F-table, so the conclusion is to accept Hi or reject H0. The test results of determination or keeeratan relationship between the variables analyzed, also shows that all the socioeconomic factors that are supposed to influence the dependent variable is quite high at R2 = 0,719 or with Adj-R2 = 0,618. This means that the decline in African catfish farmers profit pool tarp at the study sites is affected by all the independent variables were estimated at 71,9%, the rest is influenced by other factors outside the model.

2. Average profit rate of catfish farmers in the study sites is IDR 1.255.000,85 per business scale or as much as IDR 484.556,31 per 1.000 fry. These advantages are relatively high because of profitability (profitability) of 42,38%. According to the theory that every African catfish stocking of 1.000 fish tail, it will produce 100 kg of fish ready for harvest, but the results of the study revealed that on average each stocking 1000 fish tail meat produce ready to harvest as much as 116,23 kg weight ratio of 1: 1,16.
3. Average use of all inputs to the production of African catfish farming pool tarp at the study site reached a level of technical efficiency of 2,11, but when viewed as an input of production is known that the use of production inputs and livestock feed supplement inefficient because Ep < 0 The use of production inputs of seed / seedling fish, large pool tarp, supplements, medications, vitamins and labor are still not efficient. In allocative, use of production inputs in livestock farming of African catfish pond tarp in the average study site has not efficient, except for the use of fish feed is no longer efficient. The average use of production inputs have a level of economic efficiency of 13,43 where the use of animal feed and food additives from the snail, tiren, and lemuru have negarif level of economic efficiency.

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REFERENCES

AZ-Zarnuji, AT, and Hendarto, M., 2011. Catfish Farming Efficiency Analysis in Boyolali. Thesis. Fakulty of Agricultural - University of Diponogoro. Semarang.

Coelli .T. 1996. A. Guide to Frontier Versior. 4.1. A Computer Program for Stochastic Frontier Production Function and Cost Function Estima1.iofl . Centre For Efficiency and Productivity Analysis . University of New Engiand, Annidale.

Gujarati, D.N., 1995 Basic Econometrics. McGraw-Hill International Editions. New York.

Hernanto, F., 1996. Ilmu Usaha Tani. Jakarta: Penebar Swadaya.

Jember Statistics Office, 2014. Jember Regency in Figures 2014. Results Annual Report of cooperation with the Planning Board Jember.

Jondrow, J., C.A.K. Lovells., I.S. Materow and P. Schmidt.1982. On The Estimation of Technical Infeciency in the Stochastic Frontier Production Function Model. Journal of Econometric 19(2):233-238

Nopirin, 1997. Ekonomi Moneter I . Jakarta: Universitas Terbuka.

Soediyono. 1995. Ekonomi Makro Edisi Ketiga: Pengantar Analisis Pendapatan Nasional. Liberty, Yogyakarta

Soekartawi. 2003. Teori Ekonomi Produksi dengan Pokok bahasan Analisis Fungsi Cobb - Douglas. Jakarta: PT. Raja Grafindo Persada.

Susantun, I., 2000, Cobb-Douglas function Gains In view of the Relative Economic Efficiency, Journal of Development Economics, 5 (2): 149 - 161

Tajerin, and Noor, M., 2007, Technical Efficiency Enlargement Catfish Farming in Journal of Economic Development Swimming FE UII, Yogyakarta.

Zen, et.al., 2002, Technical Efficiency Of Drifnent and Poyang Seine (lampera) Fisheries In West Sumatra, Indonesia, Journal Of Fisheries Scinense Astra, Volume 15, p.97-106.

Wardani, H.K, Musofie, A., and Harwono, R., 1997. Feed with Methode Improvement Efforts to Increase Productivity Flushing Goat in Dry Areas of Yogyakarta Special Region. Proceedings of the National Seminar on Animal Husbandry and Veterinary. On 18-19 November 1997. Ciawi. Puslitbangnak - Research and Development Agency, Ministry of Agriculture.

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