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Effect of Diversification of Business and Economic Value on Poverty in Batubara Regency

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Abstract

The purpose of the research to find the most consistent factor of economic diversification in increasing economic value and reduce poverty in Batubara Regency. How fishing households performs and having better in livelihood strategy. The 260 sample of fishing household in Batubara Regency were used to investigate the research, and Structural Equation Modeling (SEM) model is used to estimate interaction related to fishing and non-fishing activities to economic value and poverty. Diversification on fishing is significant difference compared to non-fishing diversification, these results indicate that coastal communities are still heavily dependent on the businesses involved in fishing or coastal related activities. Wives work are more significantly than premises wife does not work in maintaining household which are not deeply falling down to poverty situation. Wives are still needed to increase husband's income. We recommend that the wife is looking for alternatives beyond fishing activities. Wife does not work and child work fishing more significant compared with his wife is not working and child work non fishing. These results indicate that the work of children who performed very profitable if working outside of non fishing activities. Networking is insignificant compared to networking poverty. These results indicate that the networking activities undertaken by coastal communities are not very effective in increasing income or reducing poverty. Networking should be done with empowerment between fishermen and non-fishermen who support each other.

Keywords: diversification of business, economic value, networking and poverty

1. Introduction

The development of Indonesian fisheries with large potential resources is expected to contribute to Indonesia's national development, especially to three important components of development, which is economic growth, expansion of employment, and poverty reduction. The Ministry of Marine Affairs and Fisheries [1] explained that based

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on data from BPS in 2015, of the 8,090 coastal villages in Indonesia, 3.91 million families (16.42 million people) are included in poor people with Poverty Headcount Index (PHI) of 0, 32.

Fauzi [2] said that the majority of Indonesian fishermen's households are small-scale fishing actors (coastal fishermen) are still classified as poor with less than US $ 10 per capita per month. These conditions illustrate that the potential of marine and fishery resources can not be managed and utilized optimally, so it has not contributed significantly to improving the welfare of fishermen.Poverty is believed to be one of the factors driving the decline of fish resources, while the lack of alternative livelihoods and lack of knowledge, as well as capital, makes the coast (the zone with the highest productivity and diversity of resources) experiencing tremendous fishing pressures, resulting in declining the amount of fishing.

Business diversification in some coastal areas needs to be undertaken, so that coastal communities' efforts are not only focused on fishing efforts, but can also be directed to other businesses outside the field of catching. Diversification is expected to provide economic value-added for coastal communities, especially among fishermen who have a chance to increase their income when not going to sail because there are other sources of income that can sustain the life of fishermen.The results of this analysis are expected to give an idea of the potential of suitable businesses and the strength of each influencing factor, this research is also expected to provide appropriate model recommendations to be implemented in areas with poor resource characteristics as well as in Batubara Regency.

2. Literature Review and Hypothesis Development

Chambers [3] explains that poverty is an integrated concept, which is Poverty, Powerlessness, vulnerability to emergency situations, dependency, and isolation. This research does not discuss how poverty occurs, but how households can discharge of poverty so that poverty does not get deeper. Smith [4] concludes that the strength of the fishing assets (fixedity and rigidity offishing assets) is the main reason fishermen remain trapped in poverty and there seems to be no effort to get out of poverty. The connection with fisheries world Kusnadi [5] states that the decision to diversify the work is a rational effort and choice that will more benefit the household's interest in ensuring the survival and improve the quality of life. Diversifying the work will give more freedom and freedom to the fishermen to earn income from various sources and job opportunities.

Elfindri, [6] explains that employment other than fishing done by fishermen and members of his family for the first reason is still related to fisheries, which is commonly called Off-fishing employment. Some of the above explanations indicate the weakness of fishermen in networking of social capital which is one alternative to overcome poverty, health, education and the availability of economic capital at household level even comparable with human capital in the case of non-physical social capital believed to equal physical capital [7].

The concept of networking there are elements of work through social relationships into a cooperation. Basically, the social network is formed because of mutual knowledge, mutual informing, reminding each other and helping each other in implementing or overcoming the problems of fishermen to the relationship between groups that allow the activity to run efficiently and effectively [8].

3. Research Method

The scope of this research is focused on finding the most consistent form of economic diversification in increasing economic value to reduce poverty, finding the main factors explaining the most ideal diversification in the context of poverty alleviation As well as the combination of poor households that can escape poverty in Batubara Regency which is the area of this research object.The population in this study are poor households in Batubara regency belonging to the Pre-prosperous category according to the National Family Planning Coordinating Board (BKBN), especially Batubara Regency as many as 10,317 poor households with a seal of 260 Poor Households. The researchers collected primary data. the results of questionnaires to poor households in coastal areas such as fishing, livestock, ponds, education, access to clean water, the environment and households categorized. The operational definition and measurement of variables in this study on Appendix 1.

4. Results and Discussion

Significant test is done by comparing sig. (2-tailed) t with level of test (α). Receive H0 when sig. t $\geq \alpha$ and reject H0 (accept H1) when sig. t $<\alpha$. In testing this validity will be used level of test (α) = 5% or 0.05. According to Junaidi, (2014) states that to assess whether question items are valid and reliable, it can be compared with Table r at df = N-2, where N (sample number = 260). The df value in this study: 260-2 = 258. The r value The table at df = 258 with α = 0.05 is 0.113. This means that the value of one

question item is valid if the corrected item-total correlation> 0.113. And the value of one item of question is said to be reliable if the value of Cronbach's Alpha if Item Deleted> 0.113.Characteristics of Respondents, Education Level, Age can be seen in Appandix 2.

Corrected Item-TotalCorrelation value of each item of question on business fishing, non fishing, economic value and poverty variables> 0.113. This means that the question items on business variables fishing, non fishing, economic value, and poverty all> 0.113. This means that the question items on all business fishing variables are reliable. **Appendix 3.**

Based on the result of Fit Model Assessment it is known that all model analysis has good requirement as a SEM model. **Appendix 4**. To see the relationship between each variable is done by path analysis of each variable either direct relationship (indirect) or indirect relationship. The test results can be seen **Appendix 5.** The test of causality shows that almost all variables have causality relationships, except between Non Fishing and poverty that have no short-term causality relationship with poverty. Then between Non Fishing with economic value. Test the causality probability of a critical ratio that has three or three star symbols asteris symbol which means that the value of p-value or significant level of the resulting observation is very small from 0.001 or 0.1 percent can be presented in the following explanation:

There is a causal relationship between fishing effort (fishing) with poverty. The crtitical value value of 2.085 is twice that of the standard error value and the probability value (p) which has a significant star sign. There is a causal relationship between nonfishing business and economic value. The crtitical value value of 8.023 is twice that of the standard error and the probability value (p) which has an asterisk meaning significant. There is a causal relationship between the effort beyond fishing with poverty. The value of crtitical value of 2.741 is two times greater than the standard error value and the probability value (p) which has an asterisk meaning significant. There is a causal relationship between economic value and poverty. The value of crtitical value of 11.498 is twice that of standard error and probability value (p) which has significant star sign. Direct Effects, Indirect Effects and Effects The total or the magnitude of the effects of each of the latent variables directly (standardized indirect effect) as well as the indirect effect (standardized indirect effect) as well as the total (standardized total effect) effect can be shown in **Figure. 1**

The combination of fishermen's household business that gives the highest yield. The combinations are:

Combination 1 = Husband Fisherman + Wife Not Working

Combination 2 = Husband Fisherman + Wife Off-Fishing Work

Combination 3 = Husband Fisherman + Wife Working Non Fishing

Combination 4 = Husband Fisherman + Wife Not Work + Off-fishing Working Child

Combination 5 = Husband Fisherman + Wife Not Working + Child working non fishing

Will be assessed how the income in the last month each combination of the above and calculated in accordance with the poverty line, and grouped with the poverty line.

2) To find the contribution of the combination of income, then made two models.

$$Y = a_0 + a_1X_1 + a_2X_2 + a_3X_3 + a_4X_4 + e \qquad (1)$$

Y total earnings in a month

Where X_1 is Capital, X_2 is Total Labor hours X_3 = Social relationship, X_4 is working off fishing, and e is error term.

These results prove that:

1. Diversification on fishing is significant compared to non-fishing diversification, these results indicate that coastal communities are still heavily dependent on related businesses in fishing or coastal-related activities, indicating a potential negative exploitation of large catches of fish if not properly managed impact on water quality degradation, damaged environments and destruction of future fish reserve ecosystems.

2. Wives work more significantly than premises wife does not work, these results indicate that the decline of the fishing business, although still dominate outside fishing. Wives are still needed to increase husband's income. We recommend that the wife is looking for alternatives beyond fishing activities.

3. Wife does not work and child work fishing more significant compared with his wife is not working and child work non fishing. These results indicate that the work of children who performed very profitable if working outside of non fishing activities. Promising but economically feasible to be developed while salt fish management business is at market growth level and interpreted as a successful venture.

4. Networking is insignificant compared to networking poverty. These results indicate that the networking activities undertaken by coastal communities are not very effective in increasing income or reducing poverty. Instead networking is done with empowerment between fishermen and non-fishermen who support each other.

Regression equation model.

$$\text{Poverty} = 1{,}250 \text{ constanta} - 20{,}741 \text{ fishing} - 19{,}672 \text{ nonfshing}$$
$$- 0{,}363 \text{ econmicvalue} + 0{,}004 \text{ networking} \qquad (2)$$

The result of the equation above can not be directly interpreted from its coefficient value like ordinary linear regression. Interpretation can be done by looking at the value of exp (B) or the exponential value of the coefficient of regression equation that is formed.

From exp (B1) can be seen that the status of fishing has the effect of reducing poverty by 0.765 times more compared with respondents who status rather than fishing.

The value of exp (B2) of 0.643 means that the increase in fishing by 1 will be no change of 0.643 in poverty. Thus, if there is an increase from non-fishing to fishing from low to high it will reduce the probability of poverty by 0.643 times.

The value of exp (B3) of 0.696 means that the increase in economic value of 1 will be a change of 0.696 in poverty. Thus, if there is an increase from economic value from low to high it will decrease the probability of poverty by 0.696 times.

The value of exp (B4) of 1.004 means that a networking increase of 1 will have a change of 1,004 in poverty. Thus that if there is an increase from networking from low to high it will increase the probability of poverty by 1,004 times.

4.1. Discussion

1. Discussion of diversification the most consistent effort in increasing economic value and reduce poverty in Batubara Regency. Proving empirically that fishing business has a major contribution to poverty in the Batubara Regency. Coastal Household is still dependent on fishing business. Fishing is significant compared to non-fishing diversification, meaning that these results indicate that coastal households are still heavily dependent on the businesses involved in fishing or coastal related activities. This research is not looking at the aspects of how poverty occurs as according to Suryawati [9], Chambers [3].

2. Diversification in this research presents Diversification Enterprises through fishing and non fishing. Fishing is defined the fishing business is the perception of the poor will be the efforts made by fishermen in meeting their daily needs. While Non Fishing Enterprises that are not directly related to coastal activities or fishermen. The classification of this effort is in line with the research of Elfindri [6] which states that employment other than fishing that has been done by fishermen and members of his family for the first reason is still related to fisheries, which is commonly called Off-fishing employment. The diversification of this business is very different from

the baharsyah [10], Bunasor (1990), and Suryana [11] studies of business diversification through the agricultural sector.

3. Discussion of Household Combinations The most ideal diversification to get out of poverty produces several combinations: Wives work more significantly than wives do not work. The ideal business diversification is seen from the combination of the intact household that is the husband as the head of the family, the wife and the child. Diversification is ideal for a poor household to get out of poverty when the husband works while fishing, to earn extra income wife working in a non fishing business if there are family members such as children if want to help their household life can work in non fishing activities Previous studies have much to say about how the poverty of society occurs in coastal areas and how to cope with such research studies Zen [12], Smith [4], Syarif et.al [13], Monintja (1994), and Kusmawati [14]. To increase the household income from the combination of 3 options is the wife working in non fishing and Combination of 5 children who work in non fishing in hopes to get out of poverty. Research as a reference for non-fishing business as proposed by Slamat, Angsari [15], Samsudin [16], Davandra and Burns [17], Suryanto [18], Krispscheer [19], Levine [20], Prayetno and Arsyad [21]. And to improve the capability of human resources and managerial in trying non fishihing can pay attention to rujuakan in this research Mosher [22], Adiwilaga [23], Legowo et.al [24]. Networking discussion appropriate to the need to reduce poverty. Networking (networking) is the participation of communities in both social organizations and coastal organizations. Poor fisherman households included in the Pre-S category make it possible for networking for the general public or households in particular to improve the income and share of knowledge owned by a community or individual. This is in line with the research conducted by Grootaert [7], Kusnadi [5], Lawang [8], Ruddy (2007), Anas Tain [25], Amirudun (2014).

5. Conclusion

The form of diversification that exists in fishermen's household in Batubara Regency is Fishing and Non Fishing which has causality relation with economic value and poverty. This study proves empirically there is significant influence of non-fishing business on the economic value of poor households in the Regency of Batubara. Where seen the probability value has three or three star symbols asterik symbol which mean value of p-value or significant level of observation resulted is very small from 0.001 or 0.1 percent and influence does not signify fishing business to economic value of poor household

in Kab. Coal. Based on data analysts can be dinterprestasikan that during this time that gives the largest contribution to poverty there is a fishing business that can be interpreted also households still very dependent on fishing business. If not properly handled or special attention the household poverty will fall deeper and the number of poor households will increase and the negative potential for large exploitation of fishing.

Diversification is ideal for a poor household to get out of poverty when the husband works while fishing, to earn extra income wife can work in a non fishing business if there are family members such as children if they want to help household life can work in non fishing activities. Household business fishing in the District of Batubara with the existence of networking not significantly mengurangi poverty. This study shows the results of p-value significance of networking variables of 0.996> 0.05 then rejected H0 which proves that there is no significant effect of networking on poverty with the value of the influence coefficient of 0.004. It can be interpreted that the networking activities undertaken by housekeeping households are not very effective in increasing income or reducing poverty.

The policy implications that can be suggested in this research are:

The insignificant effect of the fishing effort on economic value can be used as a basis for increasing the economic value, in which case the fishing equipment used in catching fish and the like in the sea is not feasible. Fishermen if using a motorized boat also not as the owner of the boat but as a fisherman. The policy recommendation is the provision of more adequate fishing equipment by fishermen with a very soft credit system to fishermen. Difficult people gain ownership of houses and land as a contributor to the poverty of the community. The policy recommendation is to make it easier for the poor to find a decent house and land ownership. The policy required is to allocate the budget for the acquisition of plantation land belonging to the community.The final recommendation is to change the mindset of the poor through the preparation of educational and skills budgets and trainings that change the mindset of being happy to be poor.

The final recommendation is the preparation of poverty control-based budgets through home surgery programs, land tenure surgery, fishing equipment ownership and farmers.

References

[1] Ministry of Marine Affairs and Fisheries. (2015)

[2] Fauzi, M. R (2015). Policy Paper: Key Thoughts for a Draft Rule on Customary Villages. Publisher: Forum for Village Renewal Development (FPPD). Yogyakarta

[3] Chambers. (2013). Village Development Start from Backward.Jakarta: LP3ES

[4] Smith, I.R. (1987). Increasing Fishery Income on Researched Resources (Discuss Indonesia) in Marahuddin and Smith (editors). Fishery Economics. Yayasan Obor-Gramedia. Jakarta.

[5] Kusnadi. (2002). Social Conflict of Fishermen, Poverty and Fishery Resource Seizure. LKIS. Yogyakarta

[6] Elfindri. (2002). Patron-Client Economics: Micro Phenomena of Fisherman's Household and Macro Policy. Padang: Andalas University Press

[7] Grootaert, C, Van Bastelaer. (2002). Understanding and Measuring Social Capital: A Multi-Disciplinary Tool for Practitioners. Washington: World Bank

[8] Lawang, Robert. (2005). Book of Introduction to Sociology. Jakarta: Open University

[9] Suryawati. (2004). Theory of Micro Economics. UPP. AMP YKPN. Yogyakarta: Jarnasy

[10] Baharsyah, S. (1990). Fixed Business Opportunities in the Agricultural Sector.Prism No.2 p.86 LP3S

[11] Suryana, A. (1995). Agricultural Diversification in the Process of Accelerating the pace of National Development. Pustaka Sinar Harapan. Jakarta

[12] Zen, Noerdin Noehoen. (1986). Fisherman Income Distribution Analysis in terms of Factor Contribution. Thesis Master of Science. Faculty of Post Graduate Institut Pertanian Bogor.

[13] Syarif et al. (1993). Economic Empowerment of the People. PT Pustaka Quantum. Jakarta.

[14] Kusmawati. (2005). Effect of Business Diversification, Leverage, and Company Size on Profitabitas of Open Industry Companies in Indonesia Stock Exchange ". Journal of Accounting Research AKsioma, 4 (2), pp.100-126

[15] Slamet, M, and Angsari. (1969). Animal Husbandry of the Directorate General of Animal Husbandry of the Ministry of Agriculture. Jakarta

[16] Samsudin U. (1977). Fundamentals of Counseling and Modernization of Agriculture. Bina Cipta. Bandung.

[17] Devandra C, and M Burns. (1994). Goat production in the Tropics. Translated I.D.K.H Son. Bandung ITB Publisher

[18] Suryanto, B. (1996). Analysis of Profitability of Livestock Farming Business Sheep. Media Journal 22 (4): 6-11

[19] Knipscheer, H.C. A.J. De Boer, M Sabrani, T.O Soedjana. (1987). The Role of Goat and Sheep Economy in Indonesia, A Case Study of West Java in P.S. Hardjosworo,

J.M.Levine (Editor) Livestock Development in Indonesia (Model System Role) Pg. 112-134. Yayasan Obor Indonesia. Jakarta.

[20] Levina J.M. (1987). Establishing a Model of Animal Husbandry System in the Tropics with Specific References to Circumstances in Indonesia in P.S. Hardjosworo, J.M. Levina (editor) of Livestock Development in Indonesia (Model System and Its Role). Yayasan Obor Indonesia. Jakarta

[21] Prayitno H and L. Arsyad. (1987). Village Farmers and Poverty. Agency Publisher Faculty of Economics UGM Yogyakarta

[22] Mosher, A.T. (1977). Mobilizing and Building Agriculture. CV. Yasaguna. Jakarta.

[23] Adiwilaga, A. (1996). Farming. Bandung Alumni Publisher.

[24] Legowo, A.B.E, Prasetyo and Rianto. (2002). Revenue and Profitability Profitability of Ettawa crossbreed Goat Farming to Farmer Group Members in Purworedjo District. Journal of Tropical Farming 27 (4) 177-185

[25] Anas Tain. (2010). Causes of poverty of fishermen households in the East Java More Capture Areas. Journal. Faculty of Animal Husbandry UMM.

Appendix 1

TABLE 1: Operational definitions and measurements of variables.

No	Variabel	Definition	Indikator	Scale
1	Poverty	Poverty in this study is the perception of the population below the poverty line in meeting the needs of life, consisting of 14 indicators of the poor	$X_{11.}$ Standard life (electricity, sanitation, drinking water, housing conditions, fuel, asset ownership)	Ordinal
	Dependent Variable (Y2)		X_{12} Health (nutrition, child mortality)	
			$X_{13.}$ Education (school attendance, old school)	
2	*Economic Value*	Economic value is the public perception of the benefits and utility that result from the diversification of economic and business activities millennium development goals.	$X_{8.}$ increased activity,	Ordinal
	Variabel dependen		$X_{9.}$ increased revenue	
	(Y1)		$X_{10.}$ increased prosperity	
3	*Fishing*	Fishing business is a poor perception of the effort made by fishermen in fulfilling their daily needs.	$X_{1.}$ The ship is moderate,	Ordinal
	Independent Variable		$X_{2.}$ The ship is small and traditional,	
	(X_1)		$X_{3.}$ As a labor of fishermen	
			X_4.Does not have any tools and fishing equipment	
4	*Non Fishing*	Enterprises that are not directly related to coastal activities or fishermen	X_5 *direct money cost*	Ordinal
	Variabel Independen		X_6 *time cost*	
	(X_2)		X_7 *psycological*	
5	*Networking*	Community participation in both social organizations and coastal organizations	- Join the soial organization	Ordinal
	Variabel Independen		- Join the cooperative	
	(X_3)		- Join fishing union	

Appendix 2

TABLE 2: Characteristics of Respondents by Gender, Level of Education and Age.

Character	Tottal (household)	(%)
Gender		
Man	184	70.77
Women	76	29.23
Level of Education		
No School	94	56,20
Unfinished in Primary Schoold	85	46,33
Graduated Primary School	58	15,30
Junior High School and +	23	6,07
Age		
<25	7	2.69
25-35	35	13.46
36-45	92	35.38
>45	126	48.46

Appendix 3

TABLE 3: Item Item Analysis Results Business Question of Fishing, Non Fishing, Economic Value and Poverty.

Number of Question	Fishing		Non Fishing		Economic Value		Kemiskinan	
	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	0.621	0.881	0.47	0.877	0.59	0.775	0.518	0.849
2	0.558	0.887	0.492	0.874	0.472	0.8	0.603	0.838
3	0.664	0.877	0.753	0.831	0.51	0.792	0.692	0.828
4	0.639	0.88	0.704	0.841	0.649	0.761	0.581	0.841
5	0.673	0.876	0.811	0.82	0.63	0.766	0.641	0.834
6	0.834	0.859	0.782	0.826	0.569	0.78	0.578	0.841
7	0.57	0.886	0	0	0	0	0.592	0.84
8	0.768	0.867	0	0	0	0	0.597	0.839

Appendix 4

TABLE 4: Feasibility Test Result of Research Model for SEM Analysis.

Goodness of Fit Indeks	Cut of Value	Hasil Analisis	Evaluasi Model
Min fit function of chi-square	p>0,05	(P =0.089)	Fit
Chisquare	Carmines & Melver (1981)	1354,8	Fit
	Df=164 = 129.69		
Non Centrality Parameter (NCP)	Penyimpangan sample cov	1,190,819	Fit
	matrix dan fitted kecil<Chisquare		
Root Mean Square Error of Approx (RMSEA)	Browne dan Cudeck (1993)	0.067	Fit
	< 0,08		
Model AIC	Model AIC >Saturated AIC <Independence AIC	1446,819>Saturated AIC (420)	Fit
		<Independence AIC (3970,565)	
Model CAIC	Model CAIC <<Saturated CAIC <Independence CAIC	669,186<Saturated CAIC (1109,722)	Fit
		<Independence CAIC (4706,801)	
Normed Fit Index (NFI)	>0,90	0.955	Fit
Parsimoni Normed Fit Index (PNFI)	0,60 – 0,90	0.866	Fit
Parsimoni Comparative Fit Index (PCFI)	0,60 – 0,90	0.888	Fit
PRATIO	0,60 – 0,90	0.863	Fit
Comparative Fit Index (CFI)	>0,90	0.926	Fit
	(Bentler (2000)		
Incremental Fit Index (IFI)	>0,90	0.984	Fit
	Byrne (1998)		
Relative Fit Index (RFI)	0 – 1	0.901	Fit
Goodness of Fit Index (GFI)	> 0,90	0.919	Fit
Adjusted Goodness of Fit Index (AGFI)	>0,90	0.906	Fit
Parsimony Goodness of Fit Index (PGFI)	0 – 1,0	0.822	Fit

Appendix 5

TABLE 5: Estimates of C.R (Critical Ratio) and P-Value.

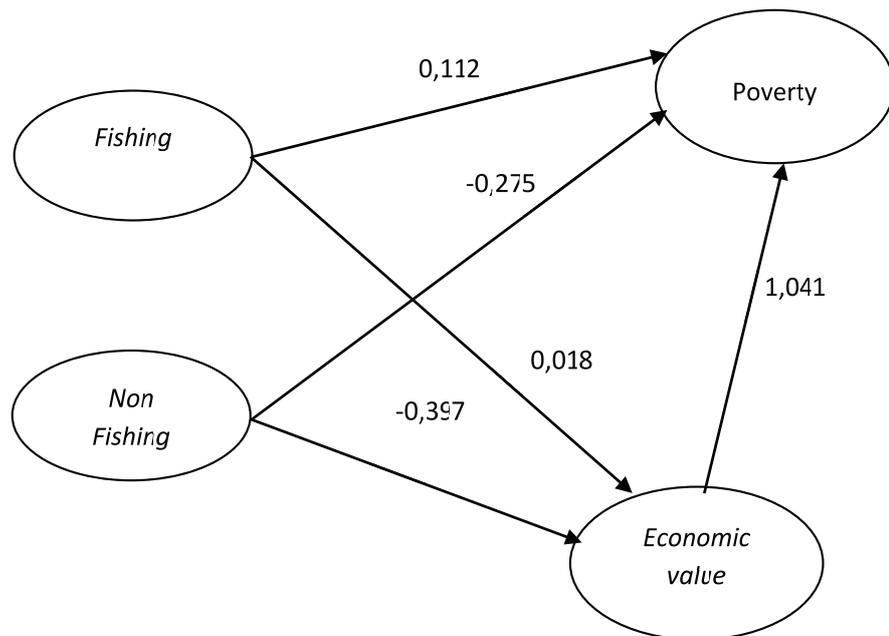|	Estimate	S.E.	C.R.	P	Label
ECVAL <— FISH	0.017	0.04	0.448	0.65	par_8
ECVAL <— NONFIS	-0.199	0.03	-8.023	***	par_9
Poverty <— ECVAL	1.029	0.09	11.498	***	par_19
Poverty <— FISH	0.089	0.04	2.085	0.04	par_20
Poverty <— NONFIS	0.069	0.03	2.741	0.01	par_21

Figure 1: Total Effects of Fishing, Non Fishing, Economic Value, Poverty.