Research Article

The Influence of Regulation Policy in Local Wisdom of Coastal Fisherman Welfare in Percut Sei Tuan Subdistrict Deli Serdang Regency

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Abstract:
The Influence of Regulation Policy in Local Wisdom Of The Coastal Fisherman Welfare In Percut Sei Tuan Sub District. The aims of this research to know (a) The amount of regulatory influence policy in local wisdom to the welfare of coastal fisherman in Percut Sei Tuan Subdistrict of Deli Serdang Regency, (b) The Regulation that has been implemented in local wisdom to the welfare of coastal fisherman in Percut Sei Tuan Sub-district of Deli Serdang Regency. From the population is taken a sample of 50 fishermen. The technique of data collection used is a questionnaire given to each respondent. Data is processed using Statistical Product Service and Solution (SPSS) version 20.0 for windows. The data analysis technique used is simple linear regression with the formula $Y = a + bX + e$. The results obtained in this study determinant coefficient value ($R^2$) obtained by 0.528 or 52.8% which means that the regulatory policy variables ($X$) in local wisdom affect the welfare of coastal fishermen ($Y$) in Percut Sei Tuan Sub District Deli Serdang Regency and from the partial test that then $t_{count} > t_{table}$. 2,010, then $H_0$ is rejected and $H_1$ accepted, and it can be concluded that the independent variable of regulation policy in local wisdom has positive and significant influence on the dependent variable that is the welfare of coastal fisherman. And the regulations that have been implemented in local wisdom is still in the form of an appeal or information only so the result is not maximized.

Keywords: Regulation Policy, Local Wisdom, Fishermen's Welfare.

INTRODUCTION

Background of the Problem
According to the Law of the Republic of Indonesia Number 27 Year 2007 regarding the management of coastal areas and small islands, article 1 states that:

"Management of Coastal Zone and Small Islands is a process of planning, utilizing, controlling and get benefit of Coastal Resources and Small Islands among sectors, between the Government and Local Government, between terrestrial and marine ecosystems, and between science and management to improve society welfare."

Coastal community empowerment is one of the new tendency in the paradigm of development in Indonesia after so long the marine and coastal areas into a region that ignorance and forgotten in the development of Indonesia. Coastal communities are known to have unique characteristics and a very high diversity of potential for biological and non-biological resources. Potential existing resources can be utilized by residents who live in the region to achieve prosperity both from the fishery sector and outside the fishery sector. But ironically, as many as 34.14% of the 16.42 million coastal people live below the poverty line with an income indicator of US$ 1 per day.

The amount of marine potential is often not directly proportional to the level of welfare of fishermen. Fishermen are often viewed as one of the groups of people who are identical with poverty. This assumption is worth pondering together, given the fact that the structure of capture fishery business so far is still dominated by small-scale enterprises. Most of the poorest fishermen are traditional fishermen who have limited capture capacity either in technological mastery, fishing methods. as well as capital. The problem of poverty is also caused by the imbalance of fish resource utilization.

Percut Sei Tuan sub-district has a majority-livelihood population as fishermen. However, until now the productivity of fishery in Percut Sei Tuan Sub District is still low due to the phenomenon of over fishing that has been going on. The increasing number of catching fishermen and not being matched by the number of catches leads to the lower level of income of fishermen that can affect the welfare level of fishermen.

Based on the problems that have been described by the author, it is a material that is interesting enough to be considered a research subject with the title "The Influence of Policy Regulation In Local Wisdom Of Welfare Coastal Fisherman in PercutSei Tuan Subdistrict Deli Serdang Regency"

The Research purpose
The objectives of this research are:
To know the level of regulation policy in local wisdom to the welfare of coastal fisherman in Percut Sei Tuan Subdistrict of Deli Serdang Regency. To know the regulations that have been implemented in local wisdom to the welfare of coastal fishermen in Percut Sei Tuan District of Deli Serdang...
Regency.

**The Significance of the Research**

According to Sugiyono (2010: 35), "The significance of research is to investigate the circumstances, reasons, and consequences of certain circumstances". Benefits that can be obtained from this research are:

1. Benefits for researchers
   a. This study is an opportunity for researchers to improve insight in the field of human resources science.
   b. To increase science and improve insight of researchers in the field of human resources science.

2. Benefits for the Public and Fishermen
   a. It is expected to contribute to the development and knowledge of regulatory policy in local wisdom to the welfare of coastal fishermen.

3. Benefits for readers
   a. The results of this study can also be used as input or source of information to increase knowledge and as an additional reference for further research.

**REVIEW OF LITERATURE**

The meaning of Regulatory Policies

The meaning of government policy is made on the basis of broad policy in principle. According to Werf (1997) the meaning of policy is the effort to achieve certain goals with certain target and in a certain order. While government policy has a standard definition as a decision made systematically by the government with a specific purpose and purpose that concerns on the public interest (Anonimous, 1992).

In accordance with the administrative system of the Republic of Indonesia, the policy can be divided into 2 (two), namely: Internal policy (managerial), which is a policy that has the power of binding apparatus within the government organization itself. External policy (public), a policy that binds the general public. It has a meaning thata policy should be written. Understanding government policy is the same as the policy of various forms such as if it is done by the Central Government in the form of Government Regulation (PP), Ministerial Decree (Kepmen) and others. Meanwhile, if the government's policy is made by the Regional Government will produce Decree (SK), Regional Regulation (Perda) and others. According to AG. Subarsono (2006: 11) in improving public service government in this case commonly also referred to as wisdom. Wisdom according to the amara raksaksasataya is as a tactic and strategy that is directed to achieve a goal.

The meaning of Local Wisdom

UU no. 32/2009 on Environmental Protection and Management. In UU (Law) Chapter: I Article I Item 30, Local wisdom is the noble values prevailing in the life of the community, among others, protect and manage the environment in a sustainable way.

According Rahyono (2009), Local wisdom is the human intelligence possessed by certain ethnic groups obtained through the experience of society. That is, local wisdom here is the result of certain communities through their experience and it will not be experienced by other communities. According to Warigan (2011), the values of existing local wisdom in Indonesia have been proven to help determine the progress of the community.

According to Sibarani (2012), local wisdom is a form of indigenous knowledge in the community derived from the noble values of local culture to regulate the life of society or called as a local wisdom.

**Local Wisdom Features**

Local wisdom is a form of civilization that is performed continuously from generation to generation.

Local wisdom is considered capable of controlling various external influences

Local wisdom usually involves values and morals in the local community.

Local wisdom is not written yet but is recognized as a wealth in various aspects of the legal/law view

Local wisdom is a form of a person character based on his coming from.

**The meaning of Prosperity**

According to Law No. 11 Year 2009, on the Welfare of the Community, the welfare of society is the condition of the fulfillment of the material, spiritual, and social needs of citizens in order to live properly and able to develop themselves, so that it can perform its social functions.

From the Law above we can see that the size of the welfare level can be judged by the ability of an individual or group in his endeavors to meet his material and spiritual needs.

Material needs can be attributed to the income that will bring about the need for food, clothing, shelter and health. Then our spiritual needs connect with education, then security and the tranquility of life.

According to Todaro and Smith (2003) argued that the welfare of the lower middle classes can be interpreted from the level of community life. The level of community life is characterized by its inclusion from poverty, a better level of health, higher educational attainment and community productivity levels.

Based on some definitions of welfare and fisherman above it can be concluded that According to Rambe (2010: 45) Welfare of Coastal Fishermen is a life order and social livelihood of Coastal Fisherman both material, and spiritual followed by a sense of safety, morality and tranquility, household and the inner and outer societies that enable every citizen to make the best possible efforts of the fulfillment of the physical, spiritual and social needs of oneself, household, and society by upholding human rights.

**The meaning of Fishermen**

Fishermen are people whose livelihood is fishing. In the fishery statistics, fishermen are people who are actively conducting fishing operations in public waters. People who do jobs such as making nets, transporting fishing gear into boats or motorboats, transporting fish from boats or motorboats, are
not categorized as fishermen (The fishery and maritime Department, 2002).

**Types of Fishermen**

In terms of ownership of fishing gear, fishermen can be divided into three groups, namely:

Fisherman Labor

Fisherman Labor is a fishermen working with fishing gear owned by others

Fisherman Boss called as Fisherman Juragan

A fisherman who have fishing gear operated by others.

Individual Fishermen

Fishermen who have their own fishing gear and in operation do not involve other people. (Mulyadi, 2005)

**Welfare Indicators of Coastal Fishermen**

According to BPS (2005) in Eko Sugiharto's research (2007) the following is an indicator used to determine the welfare level there are ten, namely: income, household expenses, health, education, cost and consumption patterns, housing, security, family responsibilities, experience and maintenance costs

Income

Income is an element that must be done in doing a business because in doing a business would want to know the value or the amount of income earned during the business. According to Sumitro in Prakoso (2013) income is the amount of goods and services that meet the level of community life, where the income owned by every soul is called income per capita where per capita income becomes a benchmark of economic progress or development. Income is very influential for the sustainability of a business, the greater the income earned, the greater the ability of an effort to finance all expenditures and activities that will be done. A person condition can be measured by using the concept of income that shows the sum of all money received by a person or household for a certain period of time (Samuelson and Nordhaus in Prakoso, 2013).

Household Expenses

Households living below the poverty line with spending groups below Rp 100,000 per capita per month in cities / districts or below Rp 80,000 per capita per month.

Health Level Health degree is indicated by "indicator" of birth by medical personnel. This shows the public awareness that childbirth assisted by medical personnel is safer when compared to non-medical. Besides, it is also reviewed from the place and the way of treatment, the dependency of the people who still to the central society health service (Puskesmas) or the services of the practicing doctor and the Government Hospital.

Education In terms of education, is the percentage of people who do not go to school.

Costs and Consumption Patterns The higher the level of income and the number of dependents of the family, the more the cost and consumption pattern also.

Housing (residence)

Bubu is one of the catching tools that is static, generally in the form of confinement, a trap where the fish will easily enter

"Indicators" of the prosperity of housing variables in terms of area and type of building owned by the community.

Security

The situation is free from danger. This term can be used with links to crime, all forms of accidents, and others.

Family Count The more the number of family dependents the higher the household expenses if it is not balanced with the income level.

Experience

A person who has experience in working has a better work ability than a person who has just entered the workforce, because the person has learned from the activities and problems that arise in his work. With the experience of work there has been a process of adding knowledge and skills and attitudes in a person, so it can support in developing themselves with changes that exist.

From the above opinion is known that repetitive exercise will strengthen and increase one's knowledge and ability. If associated with this research, if a person has inadequate experience will have an impact on the catch of fish. Hence experience can awaken and invite someone to see all work as an opportunity to keep practicing and learning for the entire life.

**Maintenance Fee**

Treatment is a deliberate and systematic attempt at the equipment to achieve acceptable and desired results / conditions.

**Fishing Equipment Type**

**PukatUdang**

PukatUdang commonly also called as PukatHarimau is a bag-shaped net pulled by one or two ships, either side or back. This tool is an effective but not selective tool that can damage all that passes.

**PukatKantong**

PukatKantong is nets for catching fish are a cone-shaped fishing nets consisting of bags, bodies, two wing sheets mounted on both sides of the net's mouth, and a warp strap. PukatCincin(purse seine)

The purse seine is a rectangular net, with a ringed ruffle rope tied to the bottom of the net to form a wrinkle and a bowl.

**JaringInsang (Gill net)**

The gill net is a rectangular net, a mesh sized with a single hook on the top and a weight on the bottom of the net.

**JaringAngkat**

JaringAngkat are a means of catching fish which is operated by lowering and lifting them vertically.

**Mata Pancing**

Mata Pancing is one of the catching tools that consists of two main components, namely: rope (line) and hook. The number of matapancing for fishing is different, ie single, double, even thousands.

Bubu

without any coercion and difficult to get out because it is blocked in various ways.
Pengumpul Kerang and rumput laut
A tool for collecting seaweed and oyster are generally designed with simple operation and small scale business. This tool is selective and not destructive, as it is intended to capture targets such as shells.

PukatIkan Karang (muro-ami)
PukatIkan Karang (muro-ami) is a fishing device made from a net, consisting of wings and pockets in which the operation of the fish is to be caught in order to enter the pockets that have been installed first.

Tombak
The spear consists of a stem (wood, bamboo) with its back end (spear eye) and a pulling rope tied to the spear eye. The towing strap is held by the fisherman then after the spear hit the target the rope is drawn to take the catch.

Conceptual Framework
[1] According to Ulber Silalahi in Sugiyono (2010: 93), “The conceptual framework defines a detailed model of the given problem and describes the set of variables to be researched”. Based on the theoretical foundation, the conceptual framework presented in the research can be seen in the following figure:

![Conceptual Framework](image)

RESEARCH METHODS

Place and time of research
The place of this research was conducted on coastal area in Percut Sei Tuan Subdistrict of Deli Serdang Regency. The study period starts from October to November 2017.

Population and Sample
According Sugiyono (2010: 80) “Population is a generalization region consisting of objects / subjects that have certain qualities and characteristics set by researchers to be studied and then drawn conclusions.

In this research, the population is the coastal fisherman in Percut Sei Tuan Subdistrict, Deli Serdang Regency, amounting to 252 people.

According to Arikunto (2009: 131-134), states that "Sample is a partial or representative of population under researched. If the subject is less than 100 better taken all so that the research is a population study. But, if the subject is large, can be taken between 10% -15 % or 20% -25% or more ". So in this research the researchers took a sample of 50 people coastal fishermen in Sub District Percut Sei Tuan, Deli Serdang Regency.

Research Design
According to Fachruddin Imam (2009: 27), "The study design is a framework or detail of work procedures that will be done at the time of research, so it is expected to provide a picture and direction which will be done in implementing the research, and provide an idea if the research has been completed or enacted ".

Research design serves to help the implementation of research in order to run well. Data analysis method used by writer in analyzing existing problem with quantitative analysis method, this method is used to know the description and influence of regulation policy in local wisdom to the welfare of coastal fisherman in Percut Sei Tuan Subdistrict, Deli Serdang Regency.

Research Instruments
According to Arikunto (2009: 160), "The research instrument is a tool or facility used by researchers in collecting data to make the work easier and the results better, in the sense of careful, complete, and systematic so much easier to process. According Kuncoro (2007: 138) how to obtain data is divided into two kinds, namely:

1. Primary Data, ie data obtained by field survey using all original data collection methods.
2. Secondary Data, ie data that has been collected by data collection agencies and published to the public data users.

Technique of Data Collection
Techniques of collecting research data is done in the following ways:

Observation
Observation is data collection conducted by observing directly the condition of the object of research on Fishermen who are in coastal areas in District Percut Sei Tuan Deli Serdang Regency.

Questionnaire
Questionnaires are data collection techniques by preparing a set of questions arranged systematically and standards given to respondents to be answered about the variables discipline and work environment in improving employee job satisfaction, then from the answer was given the score with Likert scale has interval 1-3. For answers that support questions or statements given the highest score and for answers that do not support questions or statements scored lowest.

Tabel Skala Likert

<table>
<thead>
<tr>
<th>Answer Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>3</td>
</tr>
<tr>
<td>Middle</td>
<td>2</td>
</tr>
<tr>
<td>Low</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Sugiyono (2010: 107)

note:

x = Regulatory Policy Variables
y = Variable of Fishermen's Welfare
n = Number of Data

Data Analysis Technique
According Sugiyono (2010: 147), "Data analysis techniques is the way of preparing the presentation of categories of answers in tables, figures or tendency of respondents accompanied by initial analysis of various findings of data in the field as the initial process in data processing". In accordance with the problem and sequence of hypotheses, the analytical methods used to prove the truth are:

1. Descriptive method is a way to formulate and interpret the existing data so as to provide a clear picture through the collection, compilation, and analyzing the data, so that can be known overview of the company being researched.

2. Quantitative method of analysis is the method used to propose data in the form of numbers. The data used in this study is the ordinal data. Researchers analyzed data using the patter of Correlation Product Moment as follow:

\[ r_{xy} = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{(n \sum x^2 - (\sum x)^2)(n \sum y^2 - (\sum y)^2)}} \]

Data for the purpose of hypothesis analysis and testing systematically processed by using the tool program SPSS version 20.0 data that has been obtained then tested with:

**Simple Linear Regression Analysis**

According Sugiyono (2010: 191), simple linear regression analysis is used to determine the relationship between the two variables and to know the direction of the relationship that occurred. The correlation value ranges from 1 to -1, the value closer to 1 or -1 means the relationship between two variables is stronger, otherwise the value close to 0 means the relationship between two variables is getting weaker. Positive and negative signs indicate the direction of the relationship. A positive sign indicates the same direction of change. The negative sign indicates the direction of the opposite change. The simple linear regression method formula.

\[ Y = a + bX + e \]

note :
- \( Y \) = Regulatory Policy
- \( X \) = Fishermen welfare
- \( a \) = Constant
- \( b \) = Coefficient
- \( e \) = Error

**Table 3.3. The standard of giving Coefficient Correlation Interpretation**

<table>
<thead>
<tr>
<th>Interval Coefficient</th>
<th>Level of Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 0.199</td>
<td>Very low</td>
</tr>
<tr>
<td>0.20 – 0.399</td>
<td>Low</td>
</tr>
<tr>
<td>0.40 – 0.599</td>
<td>Middle</td>
</tr>
<tr>
<td>0.60 – 0.799</td>
<td>Strong</td>
</tr>
<tr>
<td>0.80 – 1.000</td>
<td>Very Strong</td>
</tr>
</tbody>
</table>

Source: Sugiyono(2010: 147)

Test t (Partial)

According to Sugiyono (2010: 184), partial test to prove the initial hypothesis about the influence of regulatory policy (X) as independent variable to fisherman’s welfare (Y) as dependent variable.

**Characteristics of decision taken:**

Ho is accepted if \( t_{tab} < t \) pada \( \alpha = 5\% \), means no influence to the regulatory policy to the fishermen welfare in Percut Sei Tuan Sub District, Deli Serdang Regency.

Ha is accepted if \( t_{tab} > t \) pada \( \alpha = 5\% \), means that there is influence to the regulatory policy to the fishermen welfare in Percut Sei Tuan Sub District, Deli Serdang Regency

\[ t = \frac{r\sqrt{n-2}}{\sqrt{1+r^2}} \]

Coefficient of Determinant (\( R^2 \))

According to Sugiyono (2010:199), Determinant Coefficient Test is used to see how big the independent variable contribution towards the dependent variable. The bigger determinant coefficient value is a better variable capability (X) explain of variable (Y).

\[ D = r^2 \times 100\% \]

note:
- \( D \) = Coefficient of Determinant
- \( r^2 \) = Correlation of Coefficientsquare

**DISCUSSION**

The result of simple Regresi Linier The Influence of Regulation Policy In Local Sensition On Prosperity Of Coastal Fisherman. In Sub District Percut Sei Tuan Deli Serdang Regency.

**Table 1. Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.686</td>
<td>4.118</td>
<td></td>
<td>.409</td>
</tr>
<tr>
<td>Regulation policy</td>
<td>1.315</td>
<td>1.79</td>
<td>7.334</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Fishermen Prosperity

Source: Data questionnaire research, 2017

Based on table 1. Above showed that the calculation of Constanta value (a) 1.686 and b is 1.315 so that got so obtained by simple linear regression equation \( Y = 1.686 + 1.315 X + e \), where the regulation policy has significant influence to the fishermen welfare variable . It can be seen from the following information:

1. Constant (a) is 1.686 indicated that without large regulatory policy variable the value of fisherman's welfare in sub district perci sir district deli serdang is equal to 1,686.
2. Regulation Policy (X) of 1,315 indicates that regulatory policy variables have a positive and significant effect on fisherman's welfare, meaning that any increase in regulatory policy variables, it will have a positive effect on improving the welfare of fishermen.

Uji t (Partial)

Uji t is used to find out whether the regulatory policy partially
(X) in Percut sei tuan Sub District Deli Serdang Regency significantly influence or not towards the fishermen welfare.

Hypotheses Models is used:
Ho: \( b_1 = 0 \), means no positive and significant influence partially from the independence variable of regulatory policy (X) towards fishermen welfare as dependence variable (Y).
Ha: \( b_1 \neq 0 \), means positive and significant influence partially from the independence variable of regulatory policy(X) towards fishermen welfare as dependence variable (Y).

Characteristics of decision taken:
Ho is accepted if \( t_{b1} \leq t_{tab} \) at \( \alpha = 5 \%
Ha is accepted if \( t_{b1} > t_{tab} \) at \( \alpha = 5 \%

\[
t = \frac{r\sqrt{n-2}}{\sqrt{1-(r^2)}}
\]

\[
t = \frac{0.726917\sqrt{50-2}}{\sqrt{1-(0.726917)^2}} = 7.334
\]

\[
0.042841 = t_{tab} 2.010
\]

\[
t = \frac{5.03622855402}{0.6867241076} = 7.336999305 \text{ (sum up 7,334)}
\]

Analysis of table 1 to know the effect of independent variables partially to dependent variable is regulation policy variable (X) has a value of thit 7.334> ttab 2.010, it means a positive and significant impact on the welfare of fishermen (Y).

The coefficient of determination(R2):

The coefficient of determination is used to measure how far the ability of the model in explaining the variance of independent variable or its predictor. The range of values of R2 is 0-1. 0 ≤ R2 ≤ 1 approaches zero means the model is not good or the model variance in the explanation is very limited, otherwise the approaching one model is getting better.

\[
D = (r^2) \times 100\%
\]

\[
D = (0.737)^2 \times 100\%
\]

\[
D = 0.543169 \times 100\%
\]

\[
D = 54.3169\% \text{(sum up 54.32\%)}
\]

**Tabel 2. Test Result R Square (R2) Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.726917528</td>
<td>0.519</td>
<td>3.56726</td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Regulatory Policy

R shows simple correlation, that is regulation policy to fisherman's welfare is equal to 72.7 %, This means that the relationship closely, the greater the R means the relationship more closely.

R square (R2) or squared R shows the coefficient of determination is 0.528, it means the percentage contribution of regulation policy to fisherman's welfare is 52.8%, while the rest equal to 47.2% influenced by other variable not examined by this research. Used for one independent variable, while more than one independent variable should use Adjusted R Square

Adjusted R Square is the adjusted value of R2 so that the image is closer to the quality of the model in the population. From table 4:32 can be read that Adjusted R Square (R2) is 51.9 %, while the rest 48.1% explained by other factor.

**Standard Error Of The Estimated** is a predictor error measure. **Standard Error Of The Estimated** can also be called standard deviation. In this case the value is 3.56726%. The smaller the standard deviation means the model is getting better.

**CONCLUSION**

Based on various testing and data analysis, from this research can be obtained some conclusions about the Effect of Regulatory Policy on the welfare of Coastal Coastal Fishermen in PercutSeiTuaSubdistrict Deli Serdang District: Based on the t test, it is known that the result obtained from the regulation policy (X) has a value of 7.334>t tab 2.010, then Ha is accepted due to thit > ttab, so the policy of regulation in local wisdom partially positively affects the welfare of coastal fishermen in PercutSei Tuan Sub District Deli Serdang Regency

Regulations that have been implemented are still in the form of an appeal and information to fishermen who are in coastal areas in PercutSei Tuan Sub District Deli Serdang Regency.

**REFERENCES**


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