



Strategy of Strengthening Institutional Fishermen Groups for Increasing Income

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Abstract

The community development and empowerment are two inseparable sides in the efforts to overcome the phenomenon of the fishermen communities, especially in the efforts to increase the welfare through the increasing income in the fishermen communities. One of the media in implementing the community development and empowerment is through the fishermen groups. The role of fishermen groups has not run optimally yet in improving the fishermen's welfare, so it requires a strategy of developing the fishermen groups through the strategy of strengthening the economy in order to increase the fishermen's income. This research aims to determine the priority of aspects to determine the strategies and to analyze the priority of strategy of strengthening the economy through the development of the institutional fishermen groups in order to increase the fishermen income in Central Java. The method of analysis in this research uses the Analytic Hierarchy Process (AHP). The result of AHP analysis indicates the priority of aspects in the strategy of strengthening the economy those are: aspects of participation, aspects of capital, aspects of partnership, and aspects of technology. The priority of alternatives in the strategy of strengthening the fishermen's economy shows three sequences of 12 alternatives of strategies those are: the socialization of the importance of groups, the increase in the active participation, and the increase in the number of meetings.

Keywords: Institutional, fishermen groups, strategy, AHP

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INTRODUCTION

A development has been re-outlined with the basis of reducing or eliminating the poverty, disparities, and unemployment in the context of the economic development of the developing country (Todaro and Smith, 2003). In the economic development, the community's income per capita is increasing and there is also a change in the principle of economic structure. Perkins et al. (2001) mentioned two important things about this structural change that is the increasing contribution of the industry, along with the decreasing contribution of the agriculture in the national output, and the increase in the percentage of the population living in the cities compared with those living in the rural areas.

One form of development is the community development in the form of empowering the people and the community in the broadest sense. Self-reliance is an eternal life resource and as a major capital of the community to develop and maintain themselves in the middle of other communities. Empowerment is a process and also a result of the process. Empowerment is manifested as a redistribution of power, whether among the regions, class, race, gender, or individual (Tampubolon, 2012).

The economic empowerment of the community is considered very important to realize the balanced, developing, and fair economic structure; to grow and develop the business ability of the community to become strong and independent; to increase the community's role in the regional development, the job creation, the income generation, the economic growth, and the poverty alleviation. The economic empowerment efforts that have been taken are to empower the community's business to be

more efficient, more productive, and more competitive by creating the conducive business climate and the broad business opportunities. In the community business coaching, it needs to develop the partnership relations in the form of business relations that support and benefit each other among the large, medium, and small businesses and the cooperatives in order to strengthen the economic structure (Tampubolon, 2012).

Besides the empowerment program implemented by the government, one of the means to give protection to the fishermen communities is to equip them with the knowledge of the importance of living in groups. The lifestyle of living in groups actually has been long known, but their activities have not led to the raising of their social economy (Ermayanti, 2014).

The fishermen community is one part of the Indonesian people living by managing the potential fisheries resource. Living in the coastal areas, the fishermen community has its own social characteristics that are different from the communities living in the mainland. In some coastal areas that relatively develop rapidly, the social structure is heterogeneous, has a high work ethic, has a strong social solidarity that is open to the change, and has the characteristics of deep social interactions. The fishermen communities in general have a very deep pattern of interaction, which can be seen from the cooperative relationship in performing the activities, having the contacts together either among the fishermen or between the fishermen and other communities. They have the clear goal in running the business, and it is performed with the permanent system, in accordance with the culture of the fishermen communities (Fargomeli, 2014).

Various studies on the lives of fishermen generally emphasize the poverty and the economic uncertainty because of the hardships faced by the fishermen and their families (Acheson, 1981). The fishermen's life can be said as not only not having enough but also still being underdeveloped, including in terms of education. The social limitation experienced by the fishermen is not implemented in the form of alienation because physically the fishermen communities are not isolated or alienated. However, it is more implemented in their inability to take part in the profitable market economic activities, which is shown by their weakness in developing the organization outside their family environment or their local communities (Boedhisantoso, 1999; Zamzami, 2010: 114).

It is difficult for them to escape from the shackles of poverty because they suffer the limitations in the human resource quality, the access to and the mastery of technology, markets and capital. The policies and implementation of the development programs for the communities in coastal areas are still not optimal in breaking the chains of poverty and improving their welfare. This is because the portion of the policy of development on social, economy, and culture sectors in the fishermen communities is quite complex (Fargomeli, 2014).

One strategy to encourage the active participation of each individual of the members of community is through a group approach. The development aimed at the community development will be easily understood if it involves the local agents through a media called a group, because in doing various activities to earn their living, everybody tends to make groups (Tampubolon, 2012).

Institutional is a system that is deliberately made by the humans to govern the manners, rules, processes, and roles of each supporting component in it to achieve the specific goals. The supporting components in an institution consist of the subject or person as the system driving, all the rules and the manners that govern the operational of a system in the institution that involves many roles of the subject (Ermayanti, 2014).

Soekanto (2002) mentioned the institutional concept as the community institution that implies an abstract definition about the specific norms and regulations that characterize the institution, while in describing the definition of institutions, Tjondronegoro in Pranadji (2003) tended to narrow the meaning of institutions with the approach of characteristic of the social progress. It is slightly different from Rahardjo that was cited by Pasaribu (2007), in which an institutional concept embraced by the community uses the social institutional concept that is more simply defined as a complex of norms or habits to defend the values that is considered very important in the community.

Fishermen are a group of community whose lives depend directly on the sea, either by arresting or aqua-culturing. They generally live on the beach, a residential neighborhood close to the location of activity (Imron, 2003). Geographically, the fishermen community is those who live, grow, and develop in the coastal areas, which are the transition areas between the land and the sea (Kusnadi, 2004). Fishermen are people who live on the livelihoods of marine products. In Indonesia, the fishermen usually live in the coastal areas or the coastal sea. The fishermen community is a group of people whose livelihood is the seafood and live in the villages or the coastal areas (Sastrawidjaya, 2002).

Basically the fishermen communities have some differences in the social characteristics. The difference can be seen in the groups of age, education, social status, and confidence. In one group of fishermen frequently it is also found differences in the internal cohesion in terms of the relationship among the fishermen and the social relationship, as mentioned by Townsley (in Widodo, 2006).

As a social unit, the fishermen communities live, grow, and develop in the coastal areas or the coastal sea. In the construction of social communities in the coastal areas, the fishermen communities are part of the social construction, although it is recognized that not all villages in the coastal areas have a population having livelihood as the fishermen. However, in the coastal villages with predominant livelihood as the fishermen, the fish farmers, or the aquaculture cultivators, the fishermen culture has big influence on the formation of the cultural identity of the coastal communities as a whole (Kusnadi, 2010).

For the fishermen community, culture is a system of ideas or a cognitive system that serves as a "guideline of life", a reference of patterns of social behavior, and as a means to interpret and make sense of the events occurring in the environment (Kusnadi, 2010). Every idea and cultural practice must be functional in the community life. Otherwise, the culture will disappear in a short time. The culture should help the survival ability of the community or the individual adjustment to the environment of life. The culture content is a formulation of goals and means used to achieve that goal, which is agreed socially (Kusnadi, 2010). It is to play the role as a guide to conduct the actions for the members; of community.

Sherrade (2006: 23) described the income as all money that goes up in a household or other smallest unit within a certain period of time, which is called as the current flow of the money.

Reksoprayitno (2000: 99) mentioned that the revenue or income, in the sense of earnings or of the earned income, is the amount of income received by the members of the community for a certain period of time they donate in forming the national product.

Empowerment can be interpreted as a strategy to develop the community by starting through the awareness, enlightenment, and empowerment at the executors of empowerment, or through an elite group of leaders of the community, or started by empowering the existing institutions at the top (Cook, Sarah and Macaulay, 1996). Based on that opinion, it is clear that the meaning of empowerment is no longer viewing the community as an object or target that must be empowered, but rather the agents or "executors" of empowerment itself. The enlightenment and awareness that should be initiated and conducted in this case is the parties involved in the empowerment.

Imron (2012) said that the strategies to improve the fishermen's welfare are by improving the ability of the natural resource management, reducing the costs of education and health, increasing the stakeholder cooperation, and increasing the group cooperation based on the similar fields.

Dikrurahman et al (2013) found the factors in the development of the fishermen groups consist of the internal and external factors. The internal factors include the degree of similarity; leadership; interaction and communication; the degree of participation; the owned assets; and willingness or motivation. The external factors include

counseling and guidance; assistance (capital) of any party; and the access to the fish resources and the markets. Mardjoeki (2012) said that the empowerment of the coastal communities cannot be done alone but it requires the simultaneous and inter-sectoral cooperation. The most suitable approach to these conditions is by a participatory approach, which is an approach that involves the cooperation between the local community and the government in the form of joint management in which the community actively participates in the planning until the implementation. Using this way, the community is expected to not only increase the income and welfare but also to help the development smoothly and the independence.

Hairunisya (2014) said that to improve the strategy of empowering the coastal community in a sustainable manner is not only viewed from the pure economic aspect but it also needs to consider the sustainable aspect of fisheries, such as fish resources, technology, social, and local institutions. The internal aspects that need to be improved in the empowerment program of fishermen community is the character education especially the mindset, habits, and values that have been done all this time. The external factor that needs improvement is the cooperation of all relevant parties (stakeholders) so that all programs that have been implemented can be run optimally.

Mustapha, et al (2014) said that to empower the small communities of fishermen, it needs a special strategy to improve the income and welfare of their lives. Based on the research results, the strategies for the small communities of fishermen become "The First Mover" that will bring benefits for them and for their welfare.

Marzuki and Suparman (2016) in their research suggested that the development of the economic growth acceleration in the coastal area needs some strategies as follows: opening a network of product marketing of catch fisheries and aquaculture, improving the human resource capacity in the fisheries, performing the quality control of the fishery products, and increasing the social awareness of the importance of the ecosystem sustainability or the environmental welfare, and involving the participation of the local government, the central government, and the private sector.

Nunan (2006) said that to empower the fishermen community is by using an approach that is productive, which will strengthen the local fishermen group. The approach taken will be focused on improving the fishermen's welfare and the management of the natural resources with the participation of the local communities.

Rafiy, et al (2015) said that the community empowerment affects the productivity of the fishermen community. Besides, the community empowerment will increase their income, and the fishermen's productivity will affect the increasing income of the fishermen that will have implications on the increase in the social welfare in North Konawe.

Soeprijadi, et al (2013) said that the capital and ability possessed by the fishermen affect the joint business group (KUB) in Cirebon, while the fish processing business does not affect the joint business group (KUB). And the fishermen communities, especially in the empowerment of fishermen groups, have an influence on the conservation of fish resources in the coastal city of Cirebon.

Central Java is an area that has a fairly long coastline both in the North and the South. The area along the coastline is an area

of residence for quite a lot of people and most have the livelihood as the fishermen. Central Java's coastal communities have utilized most of its potential in the area, whether the utilization of the natural resources on the land and in the oceans. But the utilization of the existing resource potential is not optimal and beneficial for the fishermen community around, especially for the economy and the welfare of the fishermen when they are not at sea (because of the weather and the waves).

One way to overcome it is by maximizing the role of the fishermen group standing in the fishermen community. The group serves as a media and a means to express their opinions and feedback regarding the matters related to the fishermen. Besides, it is also as the facility of assistance from the local government. However, the circumstances and the role of the fishermen group on the coast of Central Java, especially in Bonang District, Demak Regency, have not run optimally. The fishermen groups there are not quite active in attending every meeting or in the number of meetings, so it requires a strategy of strengthening the fishermen economy through the development of institutional of the fishermen groups in order to increase the fishermen's income.

RESEARCH METHODS

Respondents

The respondents in this research are the Stakeholders/ Key Persons associated with the fishermen groups. Five Stakeholders/Key Persons interviewed and become the respondents who represent each field are in the following: the fishermen groups, the Bureau of Fisheries and Marine in Demak Regency, the Regional Extension Agency in Demak Regency, and the Experts of fisheries and marine.

As for how to obtain the information related to the research is by the Indepth Interview and by the questionnaires of the Analytic Hierarchy Process (AHP) to obtain the priority of aspects and strategies to strengthen the economy through the development of the institutional fishermen groups to increase the fishermen's income in Demak Regency. This research was conducted during 2015.

Method of Analysis

The analysis tool used is 'Analytic Hierarchy Process' (AHP) developed by Thomas L, Saaty. The selection of this analysis tool is based on the consideration that 'analytical hierarchy process' is one tool or model of decision-making with the main input the human perception. 'AHP' is one method that solves a complex problem into groups hierarchically.

The concept of AHP is conducted by weighting a criterion/aspect or sub-criteria/sub-aspects in accordance with human perception, so it is expected to be able to describe the actual conditions. This research aims to determine the criteria/aspects or sub-criteria/sub-aspects, and determine which strategies that affect/determine effectively in order to improve their welfare. The greater weight of a criterion/sub-criteria/strategy will indicate that the criterion/sub-criteria/strategy are more important than the others in influencing/ improving the welfare of the traditional fishermen.

The function of incorporating the element of perception in the method of AHP is to overcome the major weaknesses in the decision-making methods that have been commonly known by the weakness in transforming the qualitative data into the quantitative form. Besides, the 'analytical hierarchy process' (AHP) is also able to provide a priority of alternatives and to track the inconsistency in the judgments and preferences of the respondent (Saaty, 1993).

In AHP, to assess the comparison of the interest rate of an element to another element uses the weighting based on the AHP process scale suggested by Saaty (1993), as shown in the table 1.

The basic principles of using the AHP are:

1. Establishing a hierarchy
2. Setting priorities, and
3. Logical consistency

The steps used in the method of strategy preparation based on the Analytic Hierarchy Process (Saaty, 1993) are as follows:

1. Identifying the problem and determining the desired solution through the discussions with the experts who know the problems and conducting a study of reference to find the concepts that are relevant to the problems faced.
2. Developing a hierarchical structure starting from the common goal, sub-goals, criteria, to determining a number of alternatives based on the problems faced to determine the criteria and alternatives derived from the results of observations and discussions with the experts.
3. Spreading the questionnaire to the experts to find out the effect of each element on each aspect or criterion by creating a matrix of pairwise comparisons. Filling the matrix of pairwise comparison uses the numbers or the scale that can

Table 1. Scale of Comparison Assesment

Intensity of interests	Definition	Explanation
1	Both elements are the same important (<i>equal</i>)	Both elements have the same influence on the goals
3	One element is a little more important than the other one (<i>moderate</i>)	Experience and assessment rather support one element compared to the other one
5	One element is more important than the other one (<i>strong</i>)	Experience and assesment very strongly support one element compared to the other one
7	One element is clearly more important than the other one (<i>very strong</i>)	One strong element is supported and dominant in practice
9	One element is completely more important than the other one (<i>extreme</i>)	The evidence supporting one element to the other one has the highest mastery level that probably supportive
2, 4, 6, and 8	Values between two close values of consideration	The value is given when there are two compromises between two alternatives
Contrary	If the activity 1 gets one number compared to the activity y, so j has the contrary value compared to i.	

Source: Saaty, 1996

describe the interest of an element other than the other ones

4. it is processed by the help of the software expert choice version 11. If the value of consistency is > 0.1 , the answer result is not consistent so it needs to re-check the value of each element, but if the value of consistency is < 0.1 , the answer result is consistent and does not need to be re-checked.
5. Finally, the results of the priority of criteria and alternatives that have been obtained are used to establish the strategies.

RESULTS AND DISCUSSION

Determination of Criteria/Aspects and Sub-Criteria/Sub-Aspects

The research results have found the criteria result that is used as a model in the research as follows:

1. Aspects of Participation

The aspect is related to the presence of the members of group during a meeting held by the fishermen groups (regular or irregular/impromptu). The aspects of participation include the number of meetings every month, the active participation, and the role of the groups. The meeting of the fishermen group is only held when the fishermen will be fishing and when there is the capital assistance from the government; they do not hold regular meeting every month. Many members of the fishermen group are also not active in the meetings. The role of groups in the community empowerment, socialization, and distribution of the assistance from the local government is also lacking.

2. Aspects of Capital

The aspect is related to the type, source, and access to obtain the capital used by the fishermen group. The aspects of capital include the lack of facilities provided by the local government to the fishermen communities through the group to assist in the activities of the fishermen in the form of tools or machinery. It is still difficult for the fishermen to obtain the capital to facilitate the activities of the fishermen communities and the capital obtained from the local government is still not well managed whether in the use and the distribution to the fishermen.

3. Aspects of Partnership

The aspect is related to the cooperation between the related parties (Stakeholders) and the fishermen groups. The aspects of partnership include the less good system of partnership with the local governments and others, the lack of coordination among the institutions/stakeholders that are partnering with the fishermen groups, and the lack of system management of partnerships that may support and give benefit to the fishermen groups.

4. Aspects of Technology

The aspect is related to the type and needs of the technology used by the fishermen groups in running their business. The aspects of technology include the lack of quality standard of technology used by the fishermen groups in supporting their activities, the lack of technology assistance for the fishermen groups to facilitate their businesses and to increase their production, and the lack of technology management that is beneficial to the members of group in the long term

Determination of Strategies of Alternatives

The preparation of the strategy of strengthening the fishermen's economy through strengthening the institutional fishermen groups is determined based on the predetermined aspects of the problem. The strategies that can be used for strengthening the fishermen's economy through strengthening the institutional fishermen groups are in the following:

1. **The increase in the number of meetings**
Previously the meetings of the fishermen groups are rarely held. They only meet when going to sea or when getting assistance from the government. It needs to increase the number of meetings by holding the regular meeting of the fishermen groups once a month
2. **The increase in the active participation**
Many members of the fishermen group do not actively participate in any meeting held. The increase in the participation of members of the groups can be done by revamping the organizational structure and developing the cooperation among the members of the group.
3. **The socialization of the importance of the groups**
The role of the fishermen groups is still lacking in empowering the members. It requires the socialization on the importance of joining the fishermen group and the mentoring of the community leaders, the agricultural extension, and the related agencies to form the fishermen groups that are bound by the joint interests and goals.
4. **The facility provision by the government**
The government still gives less attention to the fishermen groups. The government needs to provide facilities such as the vocational training for the fishermen, the assistance of fleet and modern fishing tackle in order to increase the fish catches of the fishermen.
5. **The provision of the soft capital**
It is difficult enough for the fishermen to get a business credit from the bank. The provision of the soft capital can be in the form of the establishment of joint business group (KUB) in the form of cooperatives. The cooperatives facilitate the members of the groups to obtain the business credit.
6. **The management of access to the capital**
After obtaining the capital, the fishermen group should be able to manage the access and the capital system in the group. It requires a community mentoring program through the socialization and the management training on the capital and the finance.
7. **The improvement of the system of partnership**
It requires an improvement of the existing system of partnerships to benefit the fishermen who are the members of the group. The system of partnerships with the public and private institutions is not only in the form of the assistance of capital and means of production but also in the marketing aspect that is more secure and the product innovation.
8. **The coordination among the institutions**
It is important to coordinate among the institutions that establish a partnership with the fishermen group. The effective coordination among the institutions, for example the government, may improve the efficiency and productivity of the fisheries. The government's role is as the mediator, consultant, and facilitator in

building the partnerships with the fishermen groups.

9. The management of partnership system
Trust is the basic capital to build a synergistic and mutual partnership. The synergy and the good partnership pattern among the fishermen groups with the institutions may support and benefit the groups. The increase in the quality standard
10. The increase in the quality standard of technology is used to increase the increase in the quality standard of technology is used to increase the production and the added value for the fishermen groups. The increase in the quality standard can be conducted through the government's program to improve the capacity in technology and industry in the technical assistance activities of the quality standard with the fishery processing food.
11. The provision of technology assistance
The government provides the technology assistance to the fishermen groups to increase the catches and the production of the groups. The technology assistance may include GPS (Global Positioning System) tool to facilitate detecting the position of the fish.
12. The management of the use of technology.
The use of technology effectively and efficiently needs to be done so that it can be used in the long term and beneficial to all the members of the fishermen groups.

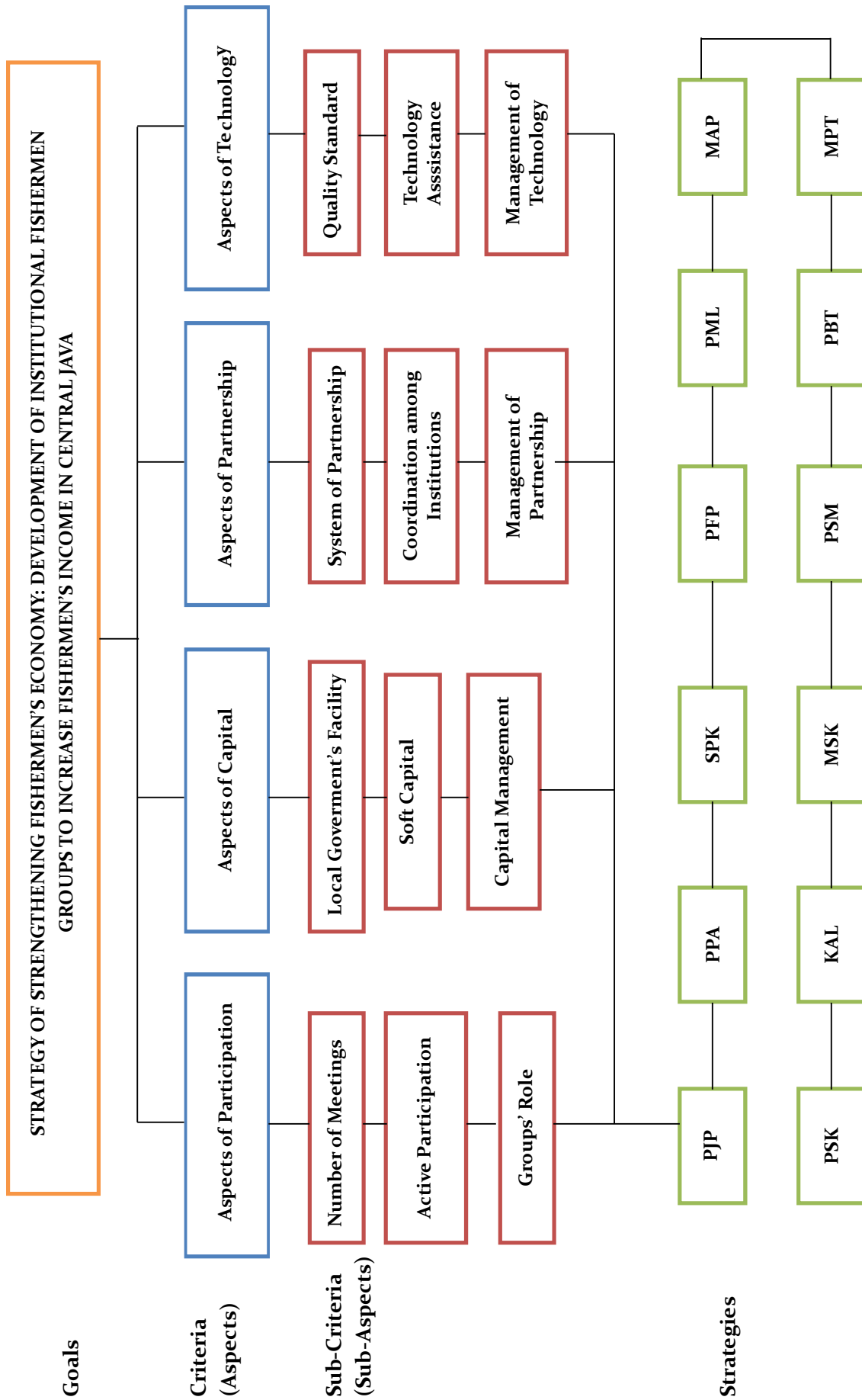
Here are the figure of model that will be counted and in accordance with the pairwise comparisons (Pairwise Comparison) using the AHP analysis.

Caption

PJP = Increase in Number of Meeting
 PPA = Increase in Active Participation
 SPK = Socialization of Importance of Group
 PFP = Facilities' Assistance from Government
 PML = Soft Capital Assistance
 MAP = Management of Access to Capital
 PSK = Improvement of Partnership System
 KAL = Coordination among Institutions
 MSK = Management of Partnership System
 PSM = Increase in Quality Standard
 PBT = Provision of Technology Assistance
 MPT = Management of Use of Technology

Determination of Strategy of Strengthening Fishermen's Economy

The determination of the strategy of strengthening the fishermen's economy in Moro Demak Village, Bonang District, Demak Regency, uses the Analytical Hierarchy Process (AHP). Based on the AHP hierarchy process towards the strategy of strengthening, there are four levels as follows: (1) level 1 is the focus or objective model of the fishermen's economic strengthening; (2) level 2 is the actors involved in the strategy of strengthening either directly or indirectly, (3) level 3 in the form of criteria or aspects to determine a strategy of policy; and (4) level 4 is in the form of an alternative model of the strategy of strengthening the fishermen's economy.



The aspects and alternatives of the strategy of strengthening the fishermen’s economy in Moro Demak Village, Bonang District, Demak Regency are then compiled into the AHP questionnaire and filled by the representatives of the related elements, such as academia, business, community, and government. The AHP result is useful to find out the priorities of the strategy of strengthening the fishermen’s economy in Moro Demak Village, Bonang District, Demak Regency, based on the perspective of the respondents of AHP.

There are some aspects produced by the Indepth interviews with the respondents as follows: 1) Aspects of Participation; (2) Aspects of Capital; (3) Aspects of the Partnership; and (4) Aspects of Technology. The AHP result for the whole priorities of aspects in the strategy of strengthening the fishermen’s economy in Moro Demak Village, Bonang District, Demak Regency, indicates the sequence of the aspects that have the highest priority to the lowest one as follows: Aspects of Participation (weight of 0.383), Aspects of Capital (weight of 0.249), Aspects of Partnership (weight of 0.226), and Aspects of Technology (weight of 0.141). The value of

inconsistency ratio is 0.02 or less than 0.1 (maximum limit), which means that the result of analysis can be accepted.

The Aspect of Participation is an aspect that becomes the main priority in the development of institutional fishermen groups. This aspect includes three alternatives: (1) the increase in the number of meetings, (2) the increase in the active participation, (3) the socialization of the importance of the groups. The alternatives considered important by most respondents in determining the priorities for the development of institutional fishermen groups in the aspect of participation is the socialization of the importance of the groups (weighting value of 0.401). The second priority in the aspect of participation is the increase in the number of meetings (weighting value of 0.309). The smallest priority is the increase in the active participation (weighting value of 0.290). The value of inconsistency ratio is 0.00394 < 0.1 (maximum limit), which means that the result of analysis can be accepted. Completely, each alternative in the aspects of participation along with the weighting value can be seen in Figure 2.

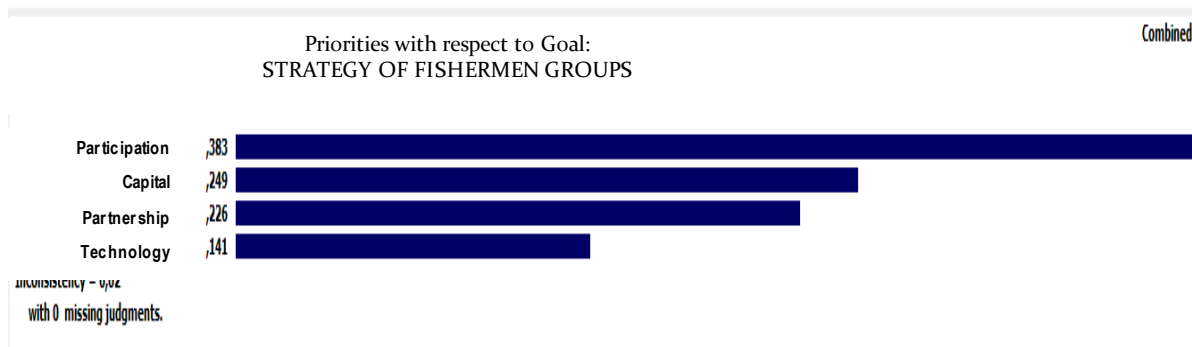


Figure 1. Criteria of Development of Institutional Fishermen Groups

Source: Analysis Result of AHP (Data Processed), 2015



Figure 2. Weighing Value of Each Alternative of Aspect of Participation

Source: Analysis Result of AHP (Data Processed), 2015

The second aspect to consider in the development of the institutional fishermen groups is the Aspect of Capital. The Alternative Weighting Value in the Aspect of Capital can be seen in Figure 3. In this figure, it appears that the alternative that has the highest priority is the management of access to the capital (weighting value of 0.426). The second alternative as the priority is the facilities provision from the government (weighting value of 0.305). And the lowest alternative is the provision of the soft capital (weighting value of 0.268). The value of inconsistency ratio is 0.06 < 0.1 (maximum limit), which means that the result of analysis can be accepted.

The next aspect in the development of the institutional fishermen groups is the Aspect of Partnership. In the aspect of partnership, the main priority is the improvement of the partnership system (weighting value of 0.354). The second priority of the alternatives in the aspect of partnership is the coordination among the institutions (weighting value of 0.344). The final priority is the management of partnership system (weighting value of 0.302). The complete one can be seen in Figure 4. It indicates that the value of inconsistency ratio is 0.04 < 0.1 (maximum limit), which means that the result of analysis can be accepted.



Figure 3. Weighing Value of Each Alternative of Aspect of Capital

Source: Analysis Result of AHP (Data Processed), 2015

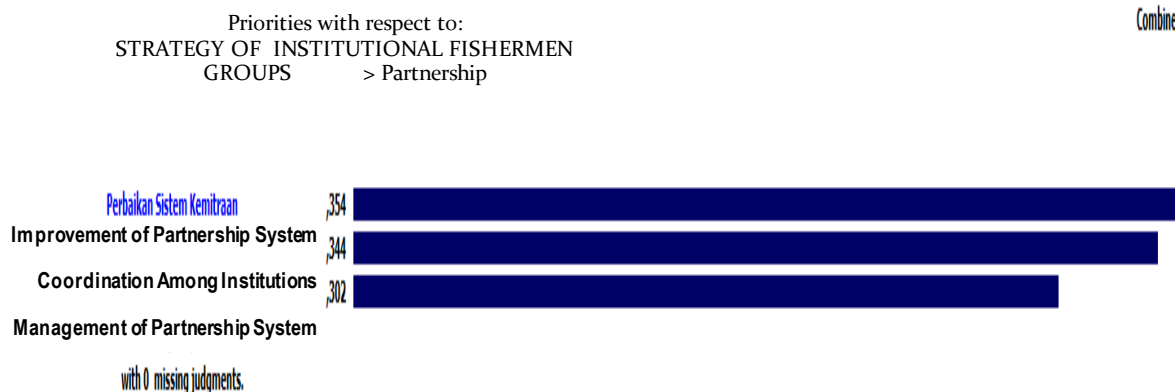


Figure 4. Weighting Value of Each Alternative of Aspect of Partnership
Source: Analysis Result of AHP (Data Processed), 2015

The last aspect to consider in the development of the institutional fishermen groups is the Aspect of Technology. Figure 5 indicates the details of the weighting value of each alternative in the aspect of technology. The main priority of alternatives in the aspect of technology is the provision of technology assistance (weighting value of 0.361). The second priority for alternatives in the aspect of technology is the management of the use of technology (weighting value of 0.341) and the lowest priority in the aspect of technology is the improvement of the quality standard (weighting value of 0.297). It indicates that the value of inconsistency ratio is $0.00643 <$

0.1 (maximum limit), which means that the result of analysis can be accepted.

There are some aspects produced by the Indepth interviews with the respondents as follows,;1) Aspects of Participation; (2) Aspects of Capital; (3) Aspects of Partnership; and (4) Aspects of Technology. The AHP result for the whole priorities of aspects in the strategy of strengthening the fishermen’s economy in Moro Demak Village, Bonang District, Demak Regency, indicates the sequence of aspects that have the highest priority to the lowest one as follows: Aspects of Participation (weight of 0.383), Aspects of

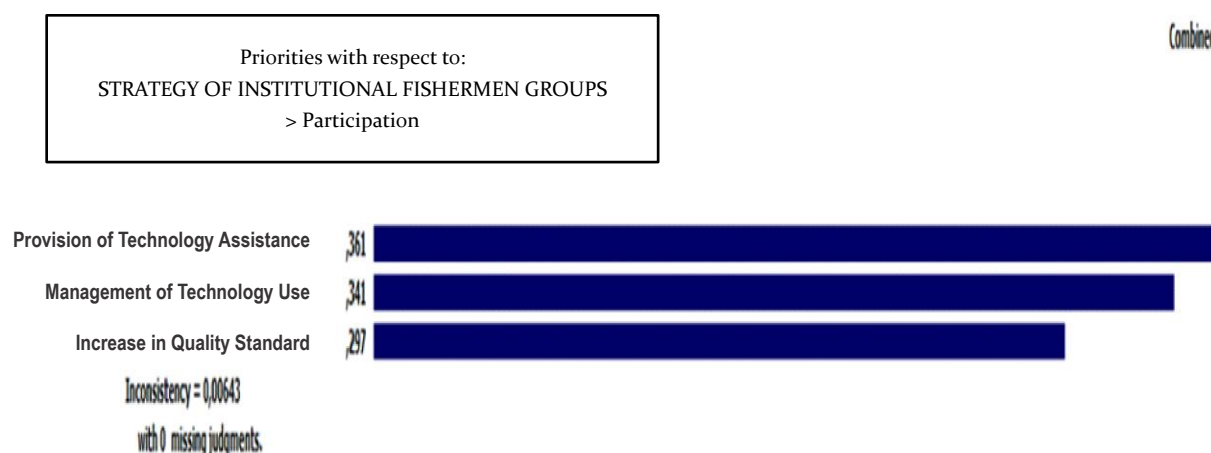


Figure 5. Weighting Value of Each Alternative of Aspect of Technology
Source: Analysis Result of AHP (Data Processed), 2015

Capital (weight of 0,249), Aspects of Partnership (weight of 0.226), and Aspects of Technology (weight of 0.141). The value of inconsistency ratio is 0.02 or less than 0.1 (the maximum), which means that the result of analysis can be accepted. For strengthening the fishermen’s economy in Moro Demak Village, Bonang District, Demak Regency, there are 12 alternatives of strategies produced based on the Indepth Interview with the respondents as follows: (1) The increase in the number of meetings, (2) The increase in the active participation, (3) The socialization of the importance of the groups, (4) The facilities provision from the government, (5) The provision of the soft capital, (6) The management of access to the capital, (7) The improvement of the partnership system, (8) The coordination among the institutions, (9) The management of the partnership system, (10) The increase in the quality standard, (11) The provision of the technology assistance, (12) The management of the use of technology. The result of AHP for the whole priorities of alternatives in the strategy of strengthening the fishermen’s economy in Moro Demak Village, Bonang District, Demak

Regency, indicates three sequences of 12 alternative strategies those are: the Socialization of the Importance of the Groups (weight of 0.211), the Increase in the Active Participation (weight of 0.117), and the Increase in the Number of Meetings (weight of 0.094). The value of inconsistency ratio is 0.02 or less than 0.1 (maximum limit), which means that the result of analysis can be accepted. This is in accordance with the research of Ermayanti (2014) saying that the high participation of the fishermen group will create a sense of ownership from the community on all activities getting higher. Indarti (2013) also said that the participation of the fishermen communities is required to run an institution particularly the cooperatives that have been established. Meanwhile, Ridwan (2012) stated that the role of groups is as the strategic base to improve the effectiveness of the implementation of the program, besides also to pay attention to the influence of the internal and external factors, which is strongly associated with the quality of resources and the local wisdom of each coastal area, in which among one coastal area with the others there are differences.

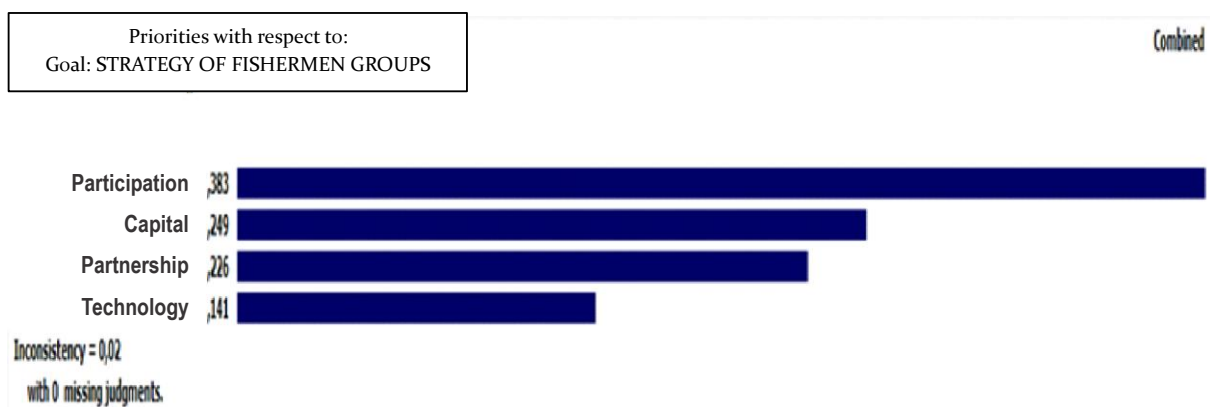


Figure 6. Priority of Aspects

Source: Analysis Result of AHP (Data Processed), 2015

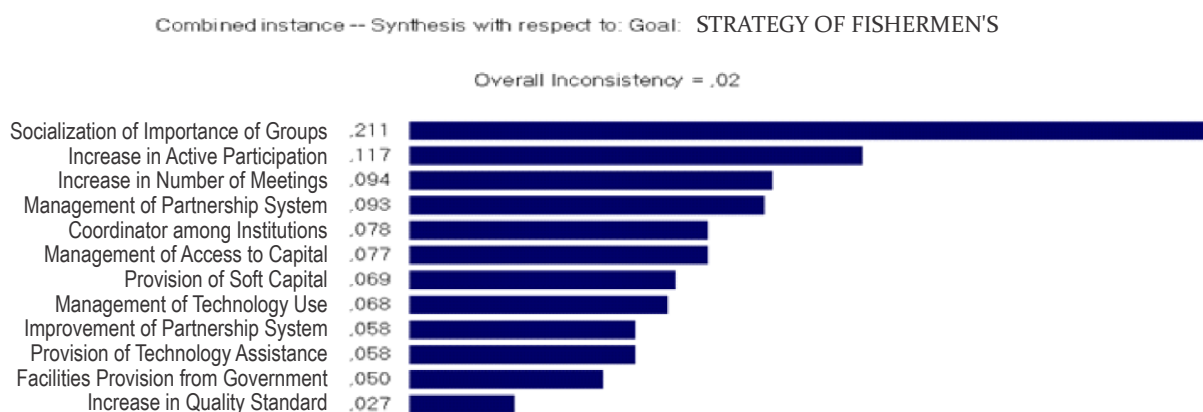


Figure 7. Priority of Alternatives in Strategy of Strengthening Fishermen Group

Source: Analysis Result of AHP, 2015.

CONCLUSION

1. The result of the research produce five criteria or aspects in the strategy of strengthening the fishermen's economy as follows: (1) Aspects of Participation; (2) Aspects of Capital; (3) Aspects of Partnership; and (4) Aspects of Technology.
2. The analysis result of AHP indicates the sequence of criteria or aspects that have the highest priority to the lowest one those are the Aspects of Participation, the Aspects of Capital, the Aspects of Partnership, and the Aspects of Technology.
3. The result of research produces 12 strategies of strengthening the fishermen's economy as follows: (1) The increase in the number of meetings, (2) The increase in the active participation, (3) The socialization of the importance of the groups, (4) The facilities provision from the government, (5) The provision of the soft capital, (6) The management of access to the capital, (7) The improvement of the partnership system, (8) The coordination among the institutions, (9) The management of the partnership system, (10) The increase in the quality standard, (11) The provision of the technology

assistance, (12) The management of the use of technology.

4. The priority of alternatives in the strategy of strengthening the fishermen's economy indicates the three highest sequences of 12 alternatives of strategies those are: the Socialization of the Importance of the Groups, the Increase in the Active Participation, and the Increase in the Number of Meetings.

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