

Collaborative Livelihood Strategy: A Reflection of Social Network in Economic Activity (Case Study in Small Islands, Maluku Province, Indonesian)

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Abstract— Research was aimed to analyze the existence of household livelihood strategy and to identify agreements constituting livelihood strategy adopted by households in small island community. Data were collected from questionnaire given to 200 respondents who lived in five small islands, such as Ambon Island, Saparua Island, Gorom Island, Selaru Island, and Kisar Island. Respondents were selected with simple random sampling. Depth interview was also conducted with key informant in each island to verify questionnaire data. Some findings were then obtained. It was found that 83.5% respondents have built social network based on kinship, while 38.5% created network based on friendship and 48% was based on neighborhood. Agreement in network may take few forms such as borrow-lend activity (63%), output marketing (59.5%), and using farming output as collateral (42%). Therefore, it was concluded that kinship is the most influential base underlying the economic activity of community in small islands.

Keywords— economic behavior, social relationship, small island.

I. INTRODUCTION

The culture adopted by small island community is not emphasizing on one work only. Previous studies have suggested several ways of how to survive successfully in the environment, among others is by living with reliable resilience to cope with various conditions of changes at the surrounding. The most difficult change to be dealt with is climate change because it is mostly less predictable. Small island community still have local wisdoms they have conserved throughout times. Early local wisdom was dominated by land-based activity, whereas sea-based activity was only

a supplement. When population grows, sea-based activity becomes central with land-based activity as support. The ability to set both land-based and sea-based activities into good collaboration is then becoming a local wisdom distinguishing the community of small islands in Maluku.

The community of small islands have been throughout generations conserving genetic diversity of various plant species based on rainfall pattern in the environment where they live. In general, Maluku people have been familiar with both fixed and shifted farming. Farmers till their land for perennial plants, such as coconut, clove, and pepper, and these plants are usually grown in plantation. Farmers also cultivate short-term plants such as edible tubers, nuts, and dry-land rices. The selection of plants is describing the culture professed for a long time by local community. Farmers have been since the beginning understanding the importance of plant selection because it allows them to gain sustainable harvest from the commodities. Land-based activity has benefited from the availability of natural resources and it is definitely meaningful for livelihood strategy. Other reasons are related with small island characteristics such as water scarcity, uncertain climate, and restrictive control span preventing technological inputs, supplies, or yields (outputs) from accessing or being marketed on the islands.

Small island community also utilizes sea sides to satisfy their needs. Their activity on sea sides includes catching fishes, cultivating sea grass, and collecting sea products such as sea cucumber and lola. The exploitation of resources at both sea and land sides shows a fact that the community begins to understand their environment. The ability of

community to understand their surrounding environment is a proof that local wisdom exists and has been inherited to generations since which they conserve it until now. Natural resources at certain island can be limited due to the narrow extent of the island. Therefore, collaborative livelihood strategy is the most rational choice referring to Weber concept of Rational Choice Theory with Traditional Authority.

Rational choice values respected by small island community are absolute values and undeniable by any interventions. To stimulate the productive function of this community, a cooperation network involving many entities is then created to help "relieving" the burden of satisfying livelihood needs. Usually, the community works with local traders in several methods, such as through borrow-lend activity or having agreement on using either sea or land outputs as collateral. Some people perceive this agreement as benefiting the entities because it is a legacy of their parents. But, others consider it as harming community. Then, a simple question rises: "When they need money for important need (for example, tuition), what is the immediate source of help for them?" The answer is traders. The agreement made between community and traders is definitely mutualism because the community with urgent need could rely on traders to get immediate help.

[1] have noted that Russian global economic system has been in war with traditional economic system at North Caucasian. Slowly but sure, traditional economic system is forced to change due to the agitation of global economic. [2] indicated that cultural power still played important role in economic development, and therefore, traditional culture (Russian traditional lifestyle), if well managed, could help improving socio-economical development of the people. Moreover, [3] explained that company culture was closely related to company performance. The stronger is company culture internalized into company members, the more increasing is company performance. The reverse of this case also prevails. It begins clear that culture still plays important role in economic life. Similar finding was shown by [4] who asserted that small island community in West Southeast Maluku has applied various strategies to satisfy livelihood needs, and they choose proper commodity based on their parental legacy. They work on activity to maintain viability of the households. It must be an interesting topic if one

analyzes cultural agreement made for establishing economic activity in small island community. Therefore, the objective of this research is to analyze livelihood strategy conducted by the households in small island community and to identify agreements constituting livelihood strategy adopted by households in small island community.

II. METHOD OF RESEARCH

2.1. Time and Location of Research, and Sampling Method

Research was located in five small islands in Maluku Province, and these islands were Ambon Island, Saparua Island, Gorom Island, Selaru Island, and Kisar Island. Each island was represented by one sample village selected purposively. It included Hila Village (Ambon Island), Ihamahu Village (Saparua Island), Mida Village (Gorom Island), Adaut Village (Selaru Island), and Lebelau Village (Kisar Island). The selection of this sample was made based on economic activity done by farmers and fishers in the islands. The community in five villages mostly works in agriculture as their dominant activity, and fishery or non-agriculture is only side job. Research was conducted gradually, in August 2015 (in Kisar Island), October 2015 (in Gorom Island), March 2016 (in Saparua Island), April 2016 (in Selaru Island), and June 2016 (in Ambon Island). Each location is represented by 40 respondents, and therefore, five villages give the author with 200 respondents. All respondents are selected in simple random manner and all of them work as farmer and fisher. Key informant is chosen from each village to explore further the answers of respondents. Key informant is decided based on their involvement in the agreement made by farmers and fishers at sample village.

2.2. Data Collection and Data Analysis

Data collected from questionnaire given to respondents [5] or obtained from depth interview with key informant [6] are called as primary data. Those acquired from participative observation [7], [5] are known as secondary data. Participative observation requires the author to go deep into the daily life of community in order to listen words and to distinguish actions shown by community as the subject. Data analysis uses Simple Tabulation to describe conditions and characteristics of research location. The processed data are shown on the table and diagram to facilitate the analysis.

III. RESULT AND DISCUSSION

3.1. Collaborative Livelihood Strategy

The selected collaborative livelihood strategy would be the function of various income sources. Some income sources of the households in

small island community can be used collaboratively to satisfy the needs of food, cloth, shelter, child tuition, and custom ritual. The function of each income source is shown in Table 1.

Table.1: Collaborative Livelihood Strategy, Income Source, and Function

No	Income Source	Function	Number of Respondent	Percentage (%)
1	Crop farming	Mostly are for household consumption, and few are sold for other needs.	200	100.0
2	Plantation farming	Child tuition, cloth	139	69.5
3	Livestock	Custom ritual, such as community trial, marriage, and funeral	118	59.0
4	Sea grass	Child tuition, cloth and shelter	40	20.0
5	Captured fishery	Food, child tuition, and shelter	107	53.0

Source: Result of research (2015-2016, processed)

The table above describes the variety of livelihood strategies adopted by households in small island community. All households exploit crop farming as their main source of household food. Some commodities are planted, such as edible tubers, corn, nuts, and dry-land rice. The selection of commodity is made based on climate condition of each island or because it is the legacy of their parent. Somehow, it is always difficult to replace certain commodity with other commodity. It is not surprising then if the households in small island community still profess their ancestral habits or legacies. Referring to the table above, it is clear that community need for food is definitely fulfilled because the main focus of crop farming is indeed to satisfy food need of the households. Thus, it can be said that food scarcity is impossible in small islands of this research.

Plantation farming may support this finding. Main commodities of plantation are coconut, clove, nutmeg and orange (especially in Kisar Island). Coconut is the most favorite plant and the condition of small island is very conducive for growing coconut. Also, coconut is the biggest contributing commodity to the fulfillment of child tuition and cloth.

3.2. The Use of Income by Households in Small Island

The increase of economic activity implies on positive impact to the household income. This income is then arranged to satisfy various needs including food, child tuition, cloth, shelter, custom ritual, and daily needs. Clear description is given in the following table.

Table.2: The Impact of the Increasing Economic Activity on Income

No	Income Source	Income Average/Year (IDR)**	Use of Income (%)*					
			1	2	3	4	5	6
1	Crop farming	1,684,000	50					50
2	Plantation farming	2,230,000		70	30			
3	Livestock	1,500,000					100	
4	Sea grass farming	2,530,000		60	20	20		
5	Captured fishery	9,850,000	70	15		15		

Source: Result of research (2015-2016, processed)

Note*):

1 = Food Consumption; 2 = Child Tuition; 3 = Cloth; 4 = Shelter; 5 = Custom Ritual; 6 = Daily Needs; ** = in monetary unit

Above table shows that child tuition dominates the use of household income over other needs. The tuition is mostly related with the continuity of child study after graduating from Senior High School. Higher education remains only in Ambon City and it definitely requires huge costs to cover. Copra farming, sea grass farming, and captured fishery, also contribute greatly to the continuity of child study.

Custom ritual always involves livestock (pig and cattle) as the funding source. Every ritual, such as marriage, birth, and funeral, often requires the relatives of the host to share contribution. Besides using livestock as the custom animal, the ritual also compels the host to provide local alcohol beverage called *sopi*. Therefore, custom ritual always incurs great cost to the host. Community trial for diverging society norms, such as adultery, also uses livestock for settlement.

Food is only derived from crop farming and captured fishery. Mostly, the harvest of crop farming is used for household consumption, and few, if any, are sold to satisfy other daily needs, including the supplement of main food. The haul of

captured fishery is mostly consumed as household food, and the remaining is sold to fulfill needs of child tuition, snack and shelter. At certain times, shelter must be fixed and repaired, and the funding is taken from captured fishery and sea grass farming. Although most parts of the house are collected from the forest, but the construction of permanent house would need materials bought from the store, and these materials include cement, zinc plate and iron bar.

As also shown in Table 2, households prepare specific strategy to fulfill their needs. The selected work must be functional to the fulfillment of needs. It is then clear that the preferred livelihood strategy is collaborative which combines several sources of income. If one source is failed or disrupted, other source may cover the needs.

3.3. Networks in Collaborative Livelihood Strategy

Collaborative livelihood strategy is made of networks which are differentiated based on kinship, friendship, and neighborhood. The following table illustrates this position.

Table.3: Networks in Collaborative Livelihood Strategy

No	Network Models	Number of Respondents (Person)	Percentage (%)
1	Kinship Based Network	167	83.5
2	Friendship Based Network	77	38.5
3	Neighborhood Based Network	96	48.0

Source: Result of research (2015-2016, processed)

Kinship based network, according to Barnes (1969), is differentiated into two, respectively total network and partial network. Total network is when all parts of the network are owned by single individual, and this would cover various contexts or living aspects of the community. Partial network is a network owned by individual to be used for certain living aspect, such as for political affair, religion, genealogy, and others. Respondents (including farmers and fishers) create network with their customers based on kinship. All relatives are included regardless they may have same or different profession. Strong kinship network can produce a strong social unit. Indeed, strong network among them would facilitate them in selling crop harvest and fish haul. They are also given easier access to borrow-lend activity, especially when they need starting capital. Borrow-lend agreement is almost always found in all research locations. More clear description is shown in Table 4.

Friendship based network, pursuant to [8], is a network connecting someone with some others into a less official relationship. The word “friendship” means that the relationship would make friend as a requirement. As Wolf said, the households do not concern too much with the sale price of their commodities they sell because they always use their friend to market their farming commodities. In such relationship, friendship would require honesty and cooperation to produce good trading activity for the commodities.

Neighborhood based network, as explained by [9], [10], and [8], is a network relating someone with some others who live around the house, and who are perceived as neighbor. This perspective declares that the marketing of plantation commodities and sea products (sea grass and fish) often relies on neighbors who are familiar with network out of village. So far, the collaboration of these three networks is apparently presented in five

research locations. The following table provides the detail.

Table 4. Agreements in Collaborative Livelihood Strategy

No	Forms of Agreement	Number of Respondents (Person)	Percentage (%)
1	Borrow-Lend Activity	126	63.0
2	Output Marketing	119	59.5
3	Using Farming Output as Collateral	84	42.0

Source: Result of research (2015-2016, processed)

The agreement is not unilaterally made but created by the consent of the entities. Farmers, fishers and collector-traders have built agreement for long time. Borrow-lend activity is settled after selling the harvest to the lender because the harvest is used as the collateral by farmers or fishers. Not all of them do this, but mostly their network is created based on kinship, and this kinship is often used as the collateral in borrow-lend activity. Farmers and fishers often submit some their farming output to traders as the precondition of agreement in output marketing. They trust these traders because the latter has been helping them to market their farming outputs and fishes. In other hand, outputs are sold to the lender to settle borrow-lend activity. The price is cheaper than the price received by farmers or fishers if they sell themselves to the market center in district town. However, transportation cost is quite prohibitive to

them, or possibly they have tight schedule or are too busy to do the selling. Therefore, they make agreement with traders who are willing to lend them monies. Besides for capital loan, borrow-lend activity is also initiated for urgent necessities such as child tuition and custom ritual. In consistent to this finding, [11] conceded that by empowering the resilience of individual and community, then socioeconomical vulnerability would be reduced. This effort can be enforced by establishing the sophisticated community based on culture, morality and solidarity.

3.4. Economic Sociology Approach in Collaborative Livelihood Strategy

The attributes of economic sociology approach in collaborative livelihood strategy is described in the following table.

Table.5: Economic Sociology Approach in Collaborative Livelihood Strategy

No	Economic Sociology Approach	Characteristics	Actors
1	Coherence	Helping others, honest, sharing information, and trust to each other are done on collective norms.	Producers of local alcohol beverage (sopi) and traders
2	Supply intensity process	Trust, cooperation, and social exchange are built for long time, and thus, price is determined with mutual trust.	Orange farmers and traders
3	Clientelization process	Borrow-lend activity may involve harvest as the collateral.	Farmers with local traders
4	Patron-Client	Capital assistance is given in exchange for the privilege on output sale.	Farmers and the company as nutmeg buyer
5	Cultural value	The participation of women in fulfilling household needs is increasing.	Women and income

Source: Result of research (2015-2016, processed)

It seems that economic sociology approach in collaborative livelihood strategy is quite relevant to be applied to small island community. The concepts of coherence, supply intensity, clientelization, patron-client, and cultural value, were suggested by [12] and [13], and these are clearly evident in economic activity of small island community.

Through these economic sociology concepts, the selected livelihood strategy must successfully keep households resilient because social agreements determine the selection of strategy. Such resilience may decline or even vanish if economic indicators are used as measurer. The relationship at household level between husband and wife, in a form of man

and woman, would then grow into relationship at community level in a form of agreement between two entities which is created based on sociocultural characteristic of each. The stronger is the sociocultural agreement, then the more certain is that livelihood strategy should fulfill household needs. [14] used Institutional Economic Theory to explain the role of knowledge in the change of European economic after the integration of European countries into European Union. Consistent to this statement, [15] has concluded that participation as the important aspect in social capital is very determining to organizational quality. The study on social network done by [16], has shown that social network is very influential to the change of social behavior perspective among individuals. The agreements made by farmers with traders were subjected to the study by [17], and they found that agreements between farmers and entrepreneurs were related closely with village isolation and personal profile.

IV. CONCLUSION

This research concludes that social relationship is often considered as the guidance in the economic activity of community. To the community of small islands, their network cannot escape from the legacy inherited by their parent. The strength of networks which are created based on kinship, friendship and neighborhood is mostly robust enough. Moreover, kinship is the strongest base that underlay the establishment of network.

There are 83.5% respondents who admit that they create kinship based network while networks based on friendship and neighborhood are developed by 38.5% and 48% of them. Agreement in network could take forms of borrow-lend activity (63%), output marketing (59.5%), and using farming output as collateral (42%). Meanwhile, kinship is the most influential base underlying the economic behavior of small island community.

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