

SOCIAL NETWORK ANALYSIS ON THE MARKETING ASPECT OF VEGETABLE COMMODITIES IN THE KATENZO FARMER GROUP

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ABSTRACT

Low of relations between farmers and the market causes the marketing of vegetable commodities to not run optimally. The relationship between various marketing agencies and farmers produces a social network. Based on this, the social network in the marketing aspect is the main capital for the development of farming. The objectives of this study were (1) to identify the characteristics of farmer members of the Katenzo Farmers Group, (2) to analyze the structure of the social network on the marketing aspects of vegetable commodities in the Katenzo Farmer Group, (3) to analyze the position of actors in social networks on the marketing aspects of vegetable commodities based on the degree of centralism. at the Katenzo Farmers Group. This study used a qualitative research design with a case study approach. Samples were taken using census techniques to all member farmers, amounting to 13 people. The analysis method used is Social Network Analysis (SNA). The results of this study indicate that all respondents are male farmers who are included in the category of young farmers who have an average high school education level and have business experience under 5 years. The network structure that is formed is a personal radius network structure (Radial Personal Network), with the central actor is the Head and Public Relations Division of the Katenzo Farmers Group.

Keywords: Farmer groups, Marketing, Radial, Social network.

INTRODUCTION

Pangalengan District, Bandung Regency has long been known as a center for agricultural production with the main commodity, namely vegetables. The agricultural sector is the largest contributor to the total Gross Regional Domestic Product of Pangalengan District and is the

third largest contributor at the district level (Central Statistics Agency, 2018).

One of the important factors in developing the agricultural sector is marketing. The lack of relations between farmers and the market has made the marketing of vegetable commodities not run optimally. Whereas when marketing is carried out efficiently and fairly, overall

marketing can increase economic efficiency, increase producer profits and increase consumer satisfaction (Beierlein et al, 2014).

Sudiyono (2002) states that agricultural marketing is a process of commodity flow accompanied by the transfer of property rights and the creation of time, place and form, which is carried out by marketing institutions by carrying out one or more marketing functions. The relationship between the various marketing agencies and the farmers creates a social network.

Social networks are formed from interpersonal relationships, between individuals and institutions, as well as networks between institutions (Mudiarta, 2009). It is emphasized by Granovetter's statement that the displacement of economic behavior in social relations can be explained through social networks that occur in economic life. Based on this, social networks in marketing activities are the main capital.

The location chosen in this research is Margamukti Village, Pangalengan District, in which there is a horticultural farmer group called the Katenzo Farmer Group. Currently the Katenzo Farmers Group has 13 members, whose main commodity is vegetables.

The objectives of this study include: (1) Identifying the characteristics of farmers who are members of the Katenzo Farmers Group, (2) Analyzing the structure of social networks in marketing vegetable commodities in the Katenzo Farmers Group, (3) Analyzing the position of actors in social networks in marketing activities of vegetable commodities based on the degree of centralism in Katenzo Farmers Group.

The pattern of social relations between actors in a social network can be identified using Social Network Analysis (SNA) (Iriani, 2013). The size of the node proximity to each other node in the network analysis is the centrality (centrality). Centrality is divided into several parts, but this study uses three

centralities, namely: Degree Centrality, Closeness centrality, Betweenness Centrality (Eriyanto, 2014).

RESEARCH METHODS

This study uses qualitative methods with case study techniques. The research was conducted at the Katenzo Farmers Group, Pangalengan District in September-October 2020. The sampling technique in this study was carried out by means of a census, which is to take all individuals included in the system as samples. The sample of this research is all farmer members of the Katenzo Farmer group, amounting to 13 people.

Sources of data used in this study are primary data and secondary data. Primary data was obtained through direct interviews with farmers guided by questionnaires. Meanwhile, secondary data is obtained from the form of ready-made data that has been collected and processed by other parties. Social Network Analysis (SNA) is used to identify the network structure that is formed and to identify the degree of centrality of each actor involved in a network.

The means used among others by providing a code on each actor (Coding), the manufacture of a matrix table connectedness, then enter the matrix table and process the data using software UCINET VI version of 6716 and the end of the data ditamoilkan in the form sosiogram and also produced scores of degrees centralist of each actor. This sociogram is then used to see patterns of relationships and roles of individual farmers in social networks.

The variables that were operationalized to determine the characteristics of the respondents were age, gender, education level, business experience and the main commodity cultivated. The actors involved in social networks in marketing are actors involved in marketing cooperation activities, marketing discussions, exchange of information related to prices and markets, as well as actors involved in the sale of products.

RESULTS AND DISCUSSION

Results

General Description The Research Location.

Margamukti Village has an area of 2,613,049 hectares or 9.57% of the total area of Pangalengan District. The topography of the Margamukti Village area is a slope/ridge with an altitude of 1,484.99 m above sea level. Most of the Margamukti Village area is community/protected/state forest land and tegal/garden/field/huma land. The total population of Margamukti Village reaches 17,437 people, most of whom work in the agricultural sector.

Margamukti Village is a center for producing several superior commodities in Pangalengan District, these commodities include: tomatoes, mustard greens and carrots. The land area for tomato plants in Margamukti Village is the highest land area compared to other villages with a land area of 114 hectares and a total production of 26220.22 tons. Apart from that, Margamukti Village is also a mustard plant producing center which has an area of 130 hectares and a total production of

30,290.28 tons. Carrot plants produced in Margamukti Village reached 34,544.54 tons from an area of 151.89 hectares.

General Description of Katenzo's Farmer Group

The Katenzo Farmer Group is a farmer group located in Pangalengan District. The Katenzo Farmer Group brings together horticultural farmers as members. Katenzo comes from the Sundanese language, namely "Katenjo" which means visible, it is hoped that someday the Katenzo Farmer Group will be able to be seen by many and can improve and develop the welfare of its members.

Initially, the Katenzo Farmers Group was formed based on friendship. Several members of Katenzo's Farmers Group are playmates who often hang out together. Finally, because each of them is a farmer, an idea emerged to form a farmer group. Member cooperation has been established since 2010, but the inauguration of the Katenzo Farmer Group by the Agriculture Service began in 2017. The Katenzo Farmer Group was also inaugurated by the village head of Margamukti through decree 145.4/SK.06/III/2017.

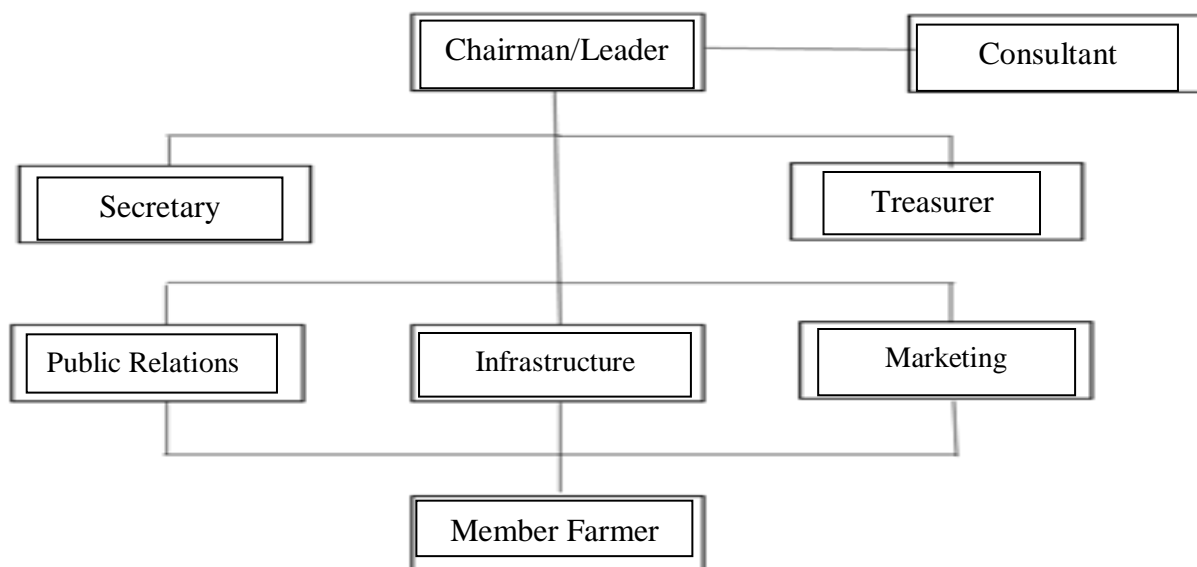


Figure 1. Organizational structure of the Katenzo Farmer Group

The Katenzo Farmer Group was formed with the aim of helping small farmers. Most of the farmers who are members of the Katenzo Farmers Group have relatively small land areas, starting from 70 tumbak. The formation of the Katenzo Farmers Group, which has been inaugurated by the Department of Agriculture, is expected to be able to bridge government assistance which is very helpful for its members.

The total area of the Katenzo Farmer Group reaches \pm 9.6 Ha, whose activities are more directed at cohesiveness and mutual cooperation in order to increase horticultural production, especially in the cultivation of baby bean plants. Through cohesiveness and togetherness in synchronization the planting pattern is aimed at facilitating the eradication of pests.

The Katenzo Farmer Group has a fairly high opportunity because the Katenzo Farmer Group is a fairly fertile area, so it can increase agricultural production. The irrigation that is owned is quite good and well maintained which provides a big enough opportunity to increase productivity. The institution contained in the Katenzo Farmer Group is a formal institution. The organizational structure of the Katenzo Farmer Group can be seen in Figure 1.

The organizational structure of the Katenzo Farmer Group consists of a chairman, secretary, treasurer, and a number of sections or fields. The number of members of the Katenzo Farmers Group is 13 people. Each field in the management structure of a farmer group is filled by one to two managers. Each device performs its duties and functions.

Characteristics of Respondents

All members of the Katenzo Farmer Group are young farmers with an age range between 23-39 years. The majority of young farmers who are members of Katenzo fall into the age category of 31-35 years, namely 46%, which means they are still in the very productive age category.

All members of the Katenzo Farmer Group are also male farmers, while the Katenzo Farmer Group does not have female farmers. The level of formal education of farmers belonging to the Katenzo Farmer Group is in the majority of high school / equivalent levels, namely 69%. The lowest level of formal education is at the SD / equivalent level at 15%. Meanwhile, the highest level of formal education is at the undergraduate level at 15%.

The main commodity that 62% of respondents cultivated was Baby Beans / Kenyan Beans, while 15% of respondents cultivated Tomato and Japanese Spinach / Poleng as the main commodity. Red cabbage is the main commodity with the smallest percentage cultivated at 8%.

62% of respondents had business experience with business experience under 5 years. The farmers who are members of the Katenzo Farmers Group are young farmers, where their farming experience is not that long. Meanwhile, only 15% were experienced farmers or had \geq 10 years of business experience.

Analysis of Social Networks in Marketing

Analysis of social networks in marketing in this study was carried out on the Katenzo Farmer Group which has 13 members. The marketing process for the vegetable commodity farmers of the Katenzo Farmers Group involves many parties, so that before carrying out the sociometric analysis, all actors in the network are given a code in the form of a number. The interaction between farmer members of the Katenzo Farmer Group and external parties involved in the marketing process can be seen in Figure 2.

The structure of the social network draws the flow of goods and information from one farmer to another. and from actors outside the system. The social network structure of the Katenzo Farmer Group's marketing activities is more open because the clicks formed by the participants are still exchanging

information. Participants who socialize among such social structures are called by Rogers and Kincaid (1981) a personal network of fingers (Radial Personal Network). Personal networks that spread (radial) have a low degree of integration, but are open to their environment.

In Figure 2, you can see several nodes that are the center of the other nodes. These nodes can be identified as opinion

leaders because other actors in the network socialize with the opinion leader. Opinion leaders can also be identified using the concept of the degree of centrality Eriyanto (2014), namely Degree Centrality, Closeness Centrality and Betweenness Centrality. The degree of centralism of social networks in the marketing of vegetable commodities from the Katenzo Farmer Group can be seen in Table 1.

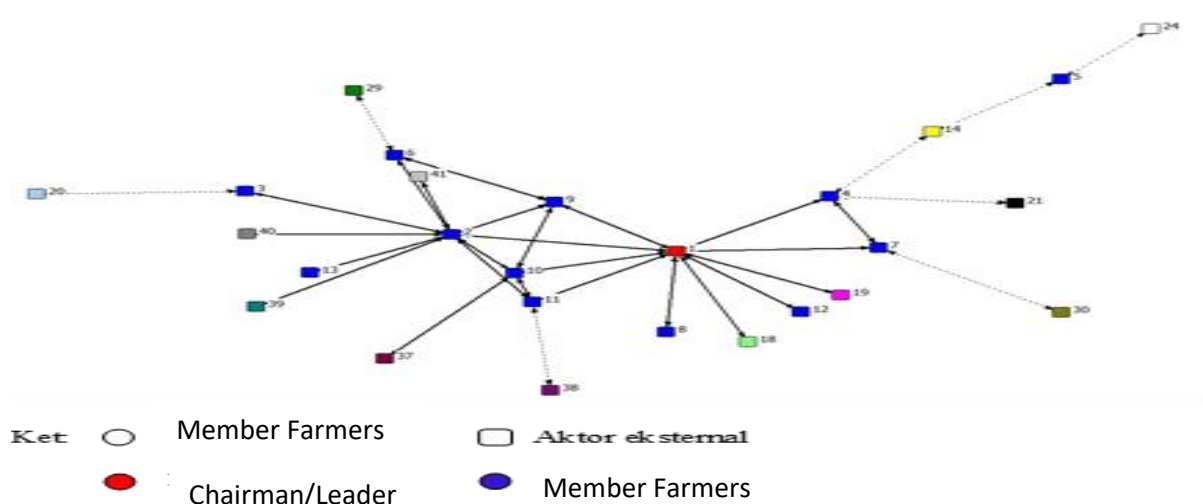


Figure 2. Social Network Structure in Marketing of Vegetable Commodities Katenzo Farmers Group The

Tabel 1. Level Centralist

level Centralist	Kode	Skor	Position
<i>Degree</i>	01	0.4	Chairman/Leader
<i>Centrality</i>	02	0.4	Public Relations
	10	0.2	Treasurer
<i>Closeness Centrality</i>	01	0.5	Chairman/Leader
	02	0.5	Public Relations
<i>Betweenness Centrality</i>	10	0.4	Treasurer
	01	0.6	Chairman/Leader
	02	0.4	Public Relations
	04	0.2	Secretary

Degree Centrality is used to describe the level of popularity of an actor in a social network, this centrality is useful for finding actors who has an important role in terms of communication collaboration. Based on the calculation results of UCINET 6, it can be identified that the actor with the value Degree Centrality highest is actor number 1 (score 0.4), actor

number 2 (score 0.4), and actor number 10 (score 0.2).

Actor number 1 is the head of the Katenzo Farmers Group, who is also a dealer / collector. He is often used as a reference for member farmers to discuss marketing and pricing information. He also frequently shares information related to marketing with the members of the

Katenzo Farmers Group. If there are problems related to marketing on the farmer's member farmer's business, he is often a place for sharing to solve these obstacles.

In addition, most of the farmers who are members of the Katenzo Farmers Group also sell their products to him. The products he collects are then sold to suppliers to be distributed to both local markets and markets outside the island. This makes actor number 1 has the highest level of popularity, both in sharing marketing information and in providing the market.

Actor number 2 is in the community relations sector of the Katenzo Farmers Group, which is also a vegetable collector or dealer. The scale of actor number 2's vegetable buying and selling business is quite large, because he has quite a lot of market networks. He is a collector of both exclusive vegetables and local vegetables. This causes most of the member farmers to sell their products to him.

Wide market access has made him often used as a reference for discussions related to marketing information and the obstacles that occur in member farms. He is also very open to market information and price information, so that many member farmers feel comfortable discussing markets and prices with him.

Closeness Centrality describes how close the actor is to all other actors in the social network. Based on the results of UCINET 6 calculations, it can be identified that the actor with the Closeness Centrality highest score is actor number 1 (score 0.525), actor number 2 (score 0.520), and actor number 10 (score 0.454).

Actor number 1 and actor number 2 are farmers who are often used as references for discussions related to marketing. The actor is considered to have a lot of information because as a collector or dealer, these actors have wide market access. The actor is also open to market information and current price information. Almost every day member farmers interact with actor number 1 and actor number 2 to

sell or deposit their produce so that they have a high enough closeness to member farmers.

Betweenness Centrality is used to measure and show the level of an actor as an intermediary for the relationship between actors and actors in a social network. Based on the calculation results of UCINET 6, it can be identified that the actor with the value Betweenness Centrality highest is actor number 1 (score 0.628), actor number 2 (score 0.488), and actor number 4 (score 0.290).

Actor number 1 and actor number 2 are vegetable collectors or dealers. The actor in this case becomes a liaison or intermediary between the market and member farmers. Member farmers sell their produce to collectors, then collectors will then distribute their produce to the target market. The actor is in charge of contacting the market and planning each existing marketing process.

Discussion

Based on the research results, the involvement of other actors in The Katenzo Farmer Group is the main key because the marketing requires the role of related actors. The results of this research are consistent with Sulistiawati's research in 2014 which shows that the highest degree of centrality in a farmer group is a leader. But the results of this study are inversely proportional to Ellyta's research in 2017 which shows the formation of personal network structure interlocking centralized. This means that this network pattern consists of individuals who are homophilic but are less open to the environment. Meanwhile, this research shows the formation of a personal radius network structure (Radial Personal Network). Personal networks that spread (radial) have a low degree of integration, but are open to their environment.

CONCLUSION AND SUGGESTION

Conclusion

The social network on the marketing aspect of vegetable commodities at Katenzo Farmers Group forms a personal

network structure of fingers (Radial Personal Network). Personal networks that spread (radial) have a low degree of integration, but are open to their environment. The central actor in the marketing aspect is the Head and Public Relations Division of the Farmer Group, Katenzo, who is also a dealer / collector.

Suggestion

Farmers who are members of the Katenzo Farmers Group should be able to further expand the market network so that marketing activities do not only rely on a few actors. Member farmers should also strengthen good relations with fellow farmer members and external parties so that they are able to produce a higher degree of integration even though the network is open.

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