

THE ROLE OF FARMERS AND MIDDLEMEN IN THE PERSPECTIVE OF ACTOR NETWORK THEORY: STUDY OF ACTORS ON AGRICULTURAL PRODUCT DISTRIBUTION CHAIN IN KAPONAN VILLAGE, MAGELANG REGENCY, CENTRAL JAVA

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ABSTRACT

The agricultural sector plays a role in encouraging the social, economic and trade sectors in Indonesia. However, the income of workers of the agricultural sector, especially farmers, is lower than in other sectors. In addition to the length of the distribution chain, farmers' dependence on middlemen is also one of the factors responsible for the low income of farmers, including in Kaponan Village, Magelang Regency, Central Java Province. This study aims to (1) identify the actors involved in the distribution chain of agricultural products in Kaponan village and (2) explain the patterns of relationships between actors involved in the distribution chain of agricultural products in Kaponan Village. This research is a qualitative case study research involving eleven informants as primary data sources. The results showed that apart from the three main actors, namely farmers, farmer groups, and middlemen, there were other actors controlling access to sales of agricultural products to supermarkets, namely technology. The relationship between farmers and middlemen in Kaponan Village is a cooperative relationship that indicates a mutualistic relationship. The farmers in Kaponan Village did not feel disadvantaged by middlemen and this relationship does not create dependence, but they feel that middlemen help them provide access to sell their agricultural products.

Keywords: *actor network theory, distribution chains, farmers, middlemen, relationship patterns*

BACKGROUND

Indonesia is an agrarian country and the agricultural sector is the backbone of the economy which also plays a major role in boosting the social, economic and trade sectors. Badan Pusat Statistik (2021) or the Central Agency for Statistics noted that the agricultural sector contributed 12.6% to gross national product (GDP) or was the third largest sector after the industrial and trade sectors. Most of the livelihoods of the Indonesian population depend on the agricultural sector which plays an important role in improving people's welfare.

Based on data from the Badan Pusat Statistik (2021), the number of poor people living in rural areas is higher than in urban areas. In the last two years of 2020 and 2021, the number of poor people

in urban areas ranged from 11 to 12 million people, while the number of rural poor people ranged from 14 to 15.5 million people. It seems that the income of farmers who live in rural areas is relatively low when compared to other workers in urban areas. The publication of the Badan Pusat Statistik (2021) shows that the average income of the agricultural sector is the lowest compared to other sectors, i.e Rp. 1 million per month while average income for the industry reaches Rp. 1.7 million and Rp. 1.18 million per month for service sector.

According to Husna et al. (2020) this low income of farmers occurs because of the long distribution chain or marketing chain so that the added value of farmers is getting smaller. Another factor is the limited access of farmers in distributing agricultural products to consumers directly, resulting in their dependence on middlemen. This dependence is also indicated by the lack of knowledge of farmers which making them difficult to access high selling prices. It is well known that the trade of agricultural products in rural areas cannot be separated from the existence of middlemen.

The price gap between farmers and consumers is caused by the profit margins that exist at each level of the marketing chain (Husna et al., 2020). The long distribution chain of agricultural products from producers through middlemen has resulted in the high a price gap for consumers. The price of products monopolized by middlemen makes farmers in a position to be more disadvantaged than benefited. Due to the actions of middlemen who take advantage, farmers cannot control the distribution chain because of limited information, technology, and sufficient knowledge which makes the welfare of farmers low.

In rural areas, people who live as farmers are usually suffered from poverty. Based on employment data from the Badan Pusat Statistik (2021), the agricultural sector occupies the highest position as a sector that absorbs labor in Indonesia. In 2021, the workforce in the agricultural sector will reach 30% of the total population of Indonesia, followed by the trade sector in second place with a percentage of 19% of the total population of Indonesia. Ironically, farmers' incomes are still below other business sectors as previously stated, so it is necessary to empower farmers through farmer groups and conduct socialization to direct farmers to add value to their production. It is expected that farmers can improve their welfare and poverty in rural areas can be reduced.

The dependence of farmers on middlemen is reflected in: 1) the strong role of middlemen involved in the process of harvesting agricultural products, 2) The dependence of farmers on intermediaries is caused by various things, both middlemen and the farmers themselves, 3) strong social ties, which are often personal, and there is an effort to maintain the relationship, 4) the weak position of farmers so that they cannot get out of the zone depending on middlemen (Megasari, 2019). In addition, farmers basically become peasants or people who carry out economic activities to fulfill their daily needs (Mahmudah & Harianto, 2014). Farmers as peasants also apply subsistence ethics, i.e. applying actions to prioritize their safety. On average, farmers are more dependent on middlemen who are retailers, while large farmers are less dependent on middlemen because they have a bargaining position against middlemen compared to retail farmers (Mahmudah & Harianto, 2014). According to Hutabarat (2013), dependence can create exploitation, which can be seen when marketing is managed by middlemen for farmers. This attitude of exploitation is manifested by setting prices below the market price (benchmark), as well as gradual payments. Middlemen do not only control the marketing and capital systems. They also control the credit system.

Kaponan Village is one of the villages in Pakis District, Magelang Regency. Kaponan is strategically located on the Magelang - Kopeng - Ketep tourist route and the conversion of Mount

Merbabu into a national park since 2008 has had a huge impact and development for the residents of Mount Merbabu National Park. Most of the Kaponan villagers rely on the agricultural sector to meet their daily needs. The agricultural products produced are vegetables. Although Kaponan Village is not located in remote areas where it is difficult to access transportation, there are still many farmers who choose to sell their products to middlemen.

Based on this problematic situation, identification of actors who play role in the distribution of agricultural products produced by farmers becomes important, because these actors also play a role in determining the selling price of the product. In term of novelty, study on the relationship between farmers and middlemen have been studied, for example by Hanifawati et al. (2018) who learned about the dependence of farmers into middlemen as a patron. While the study of Andika et al. (2020) highlights the deprivation of rights and welfare of the farmers by middlemen. In general, the relationship between the farmers and middlemen has been conducted. However, the role of ANT in identifying the network has not been paid attention.

Therefore, the research question that arises is "What is the role of actors along the distribution chain of agricultural products on the sale of agricultural products in Kaponan village?" These questions can be reduced to more specific questions, namely: (1) who are the actors involved in the distribution chain of agricultural products? and (2) What is the relationship pattern between the actors involved in selling agricultural products in Kaponan Village?". Therefore, this study aims to (1) identify the actors involved in the distribution chain of agricultural products in Kaponan village and (2) explain the patterns of relationships between actors involved in the distribution chain of agricultural products in Kaponan Village. Based on the results of this study, the actors involved in the distribution of agricultural products in Kaponan Village will be identified, explained the patterns of their relationship, and their respective roles, so that these results can be used to recommend efforts to increase the added value of farmers in order to increase the value of the farmers and welfare of farmers, especially in Kaponan village. The analysis of the research involves the Actor Network Theory (ANT) concern on the forming of network which involves human and non-human interactions. Therefore, ANT theory is sufficient to be used in this research as it can helps the researcher to identify the actors involved in the middlemen and farmers relationship.

RESEARCH METHODS

This study was conducted using qualitative methods, which involved the researcher as the key instrument, data triangulation and inductive/qualitative data analysis, emphasizing meaning rather than generalization (Sugiyono, 2015). In addition, the use of non-numeric data, qualitative research seeks to interpret these data in order to gain an understanding of people's experiences, meanings, and relationships of the population who is the subject of research. Qualitative research intends to describe and interpret an event from the point of view of the individual or population being studied so that later concepts or theories can be generated (Mohajan, 2018).

Based on this understanding, this research was conducted using qualitative methods with the following considerations: (1) identification of actors needs to be carried out with a more persuasive and in-depth approach, which requires a good introduction to informants, (2) the experiences and motivations of each actor involved in the distribution chain of agricultural products will be very different from one another, as well as related to the pattern of relationships between actors, thus it

needs to be explored in depth, and (3) this research looks at the actors as part of the distribution chain or a complete system. The strategy for this research is a case study as this research seeks to answer explanatory research questions, by focusing on contemporary events, and do not involve control over the behavior of the research subjects (Yin, 2003).

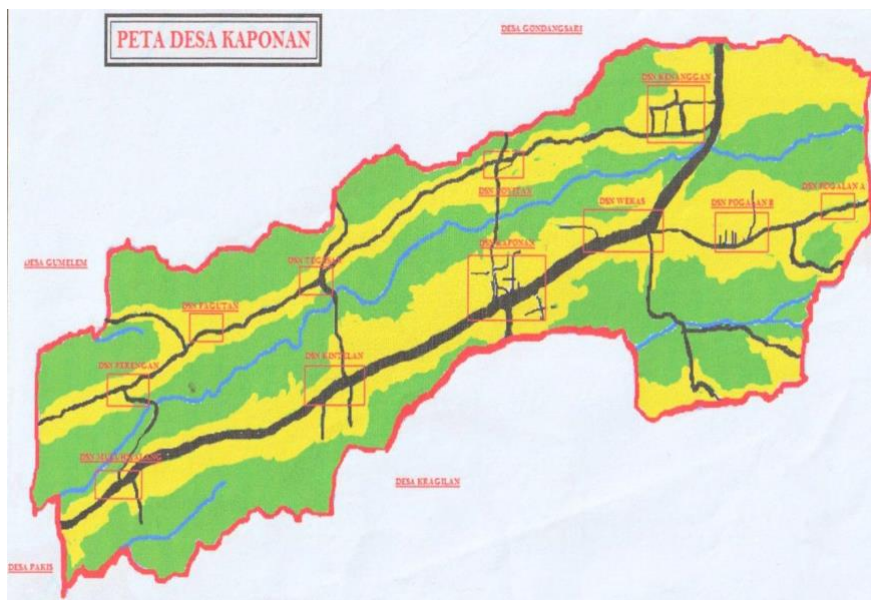


Figure 1. The Map of Kaponan Village
(Source: The Government of Kaponan Village, 2022)

This research was conducted in Kaponan Village, Pakis District, Magelang Regency, Central Java Province. This location was selected because: first, Kaponan village is one of the villages with high agricultural potential and the majority of the population are farmers who having relationships with middlemen; second, the majority of farmers sell their agricultural products to middlemen; third, there is access for researchers to reach and conduct the research in the location.

Kaponan village consists of 235 families and in average each family consists of three persons (per May 21, 2021). It is estimated that 40% of the villagers are farmers and 60% are students and elders. The farming sector of Kaponan village is dominated by vegetable and the main commodity is chilli. Most of all farmers sell their commodities without post-harvest treatment and sell them to the middlemen or traditional market.

This study collects primary data and secondary data. Primary data was collected through fieldwork, which means that researchers went directly to the field to make observations and in-depth interviews with informants. A total of eleven informants were involved in this research, and they consisted of one person representing the village government, two informants representing the administrators of the Farmer Group, three farmers who were members of the farmer group, three farmers who were not the members of the farmer group, and three middlemen. Interviews were conducted for 15 to 40 minutes for each informant. Interview recordings were compiled into interview transcripts, then analyzed descriptively. The names of the informants are written as initials to maintain their confidentiality. The results are presented in narrative form. The research stages are explained based on the following flow chart (Figure 2).

The first step in this research is preliminary observation in order to get an overview regarding the research area in term of the activities of the community as a farmer, and other supporting information. When the observation is adequate, the collected information could be used to identify some problems in the observed area. Among some issues or problems which may arise, there is an interesting problem related to the relationship between farmer and middlemen which could be explored further.

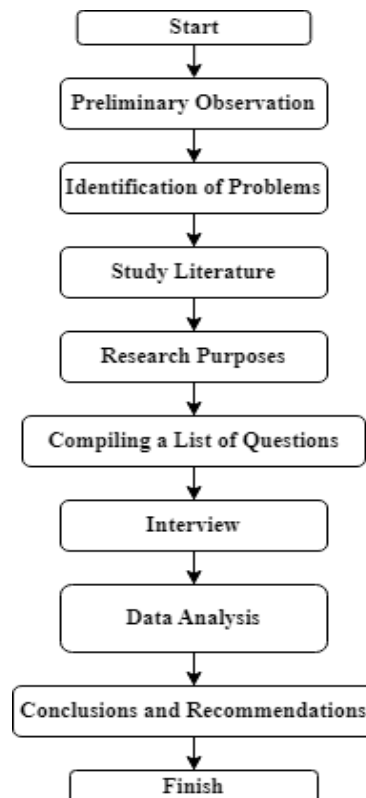


Figure 2. The Flowchart of The Research

Following the previous steps are study literature in order to formulate the research purposes. The research questions are broken down into some technical or operational questions that can be used as a guidance for interview. After the interview (data collection), the data was analyzed and interpreted in order to be concluded and seek for recommendation. In this research, the analysis was conducted using qualitative method instead of quantitative in order to identify the network in the relationship between farmers and middlemen. As previously mentioned, the ANT was used as guiding theory. The technical analysis itself was conducted based on the qualitative analysis process as explained previously. However, considering this research was a qualitative in nature, which involves eleven informants as what we usually call “sample” the conclusion could not be used for the purpose of generalization. In other words, the conclusion is relevant only for the farmers in Kaponan as the case study.

RESULT AND DISCUSSION

Actors in Distribution Chain of Kaponan Village's Agricultural Products

Farmers

This study found three actors in the distribution chain of agricultural products in Kaponan Village, namely farmers, farmer groups, and middlemen. There are Kaponan village farmers who become informants who have long been farmers with more than 20 years of experience, there are also farmers in the range of 15-20 years, but some are farmers for less than 15 years. One of the informants who became a farmer for less than 15 years (BD) had experience working as an employee in a company, but later chose to become a farmer.

Most of the farmers in Kaponan Village have their own land to carry out their agricultural activities. Farmers in Kaponan Village grow various vegetables on their land, such as chili, cabbage, tomatoes, broccoli, mustard greens, carrots, and others. In Kaponan Village, the superior agricultural products are chilies, tomatoes, and cabbage. Nevertheless, the informants agreed that the main agricultural commodity is chili.

The farmers usually sell their produce directly without post-harvest processing for the products because according to them, in addition that it will takes a long time, they also do not know how to process chilies, tomatoes and cabbage. Most of the farmers are traditional farmers and elders who of very limited knowledge in post-harvest processing. Similar results are reported by Kurniati et al (2019) who found that limitations of farmers in Sukasari village, Kepahiang, in term of knowledge and skill causes their inability to process their harvest into other products.

Some farmers in Kaponan village sell their harvests directly to the market, but there are farmers who sell the products through the middlemen. Farmers sell their produce to the market when the amount of harvest is small and they need money immediately to be used to meet their daily needs. In addition, they sell their harvests directly to the market because the sometimes the selling price is quite high, and even higher than the price determined by middlemen.

“Agricultural products are sold to middlemen, the reason is to save transportation costs and save time because the vegetable market is a bit far, so now we have to go to Ngablak/Tegalrejo. In the past, there was a market here. I sold the products to middlemen to avoids the risk that the market price will fall when the supply is large.” (BD, February 28, 2022).

However, not all farmers sell their crops to the market. There are farmers who choose to sell them to middlemen. The reason which motivated them to sell their agricultural products to middlemen is to avoid or minimalize technical matters to transport their own crops to the market, such as having to rent a car which also costs money. It is known that traditional market in Kaponan village is not operating, therefore farmers sell their agricultural products at the Ngablak traditional market, which is quite far away. When farmers have to sell their agricultural products at the Ngablak traditional market, they face obstacles, especially transportation costs. Hence, they choose to sell their harvest to middlemen because in that way they are not bothered by transportation matters, especially because the buying price of middlemen and market buying prices, in their experience, are not always too different. In this way, they can also save time to do more productive things. As explained by Muzakki

and Nurhayati (2016), farmers think that selling vegetables to middlemen is the right step in selling vegetables in large quantities. This is because farmers do not incur additional costs for transportation to bring vegetables to the market. The farmers in Kaponan village also have not sold their harvests directly to supermarkets. Even though there are those who aspire to one day be able to penetrate supermarkets, they admit that they still face several obstacles. These constraints include the types of commodities being sold by supermarkets which are usually different from those planted by farmers, and even the supermarkets often do not need large quantities, as well as the requirement to receive only qualified commodities which often cannot be met by farmers. Another obstacle faced by farmers if they want to reach supermarkets is the absence of network that can bring or introduce their products to supermarkets. Thus, the problems faced by farmers tend to be related to commodities, demand for commodities, and access to supermarkets.

Farmer Groups

There are farmers in Kaponan Village who join farmer groups. Male farmers are usually members of the Tunas Harapan Farmers Group consists of twenty-four members, while female farmers are members of the Tunas Muda Farmers Group that consists of fifty members. These two farmer groups meet each other every thirty-five days and also conduct meetings with the Merbabu Farmers Association (the organization that oversees the Farmers' Group in Pakis and Ngablak sub-districts). The existence of this farmer group is quite helpful for farmers. They provide capital through savings and loan businesses managed by the group, distribute supports from government, and provide agricultural training for members of the groups.

“Quite helpful, especially in term of providing chemical fertilizers, preparing pesticides and lending capital to farmers in the form of money.” (TR, March 19, 2022)

According to the informant, the existence of this farmer group is sufficient to help farmers, especially in providing fertilizers, preparing pesticides, and lending capital to farmers in the form of money. Government aids used as supporting facilities for farmer groups, which include arco, tractors and farmer cards to obtain chemical fertilizer assistance. However, there are also informant who were once members of farmer groups but later resigned or were no longer active members because they felt they did not get benefit from the farmer groups in the form of governmental support which they did not receive when they needed it most.

“I used to be [a member of a farmer group], but I feel it when there is a need but government support has not available, finally I became uninterested. In the past, the expectation was that if we sold the harvest, the price would be all the same for farmers, but I waited for about a year, everyone was still selling in their own way. What the farmer wanted is that if he planted, he will know how much would he harvest and how much profit would he make. Thus, farmers can plant with a lot of cost. I joined a farmer group because I want a contract, for example, to produce this kind of plant. Then, we would like to be ensured that when its come to harvest time, we could get financial benefit of certain amount, so we can put an effort to produce for a certain quantity. However, because I waited for about ten years it was still just like the current way, so I took a break from the farmer group. Previously, I was registered and then we were informed that we would be given seeds, and others. However, as I said earlier when

I wanted to plant, there was no support for me in the form of seeds, but when I don't plan to plant, the seeds are distributed, yet the seeds have an expiration date, so that's why I'm no longer a farmer group member.”
(PW, March 19, 2022).

In addition to the role of farmer groups as described earlier, farmer groups also assist farmers in distributing agricultural products, but in limited quantities because supermarkets only require limited supplies and only certain types of vegetables are requested, such as tomatoes, lettuce, broccoli, and lotus. In fact, the yields of farmers belonging to the Kaponan Village farmer group are very large, therefore it is impossible for the harvest to be distributed entirely to supermarkets. Finally, many farmers in Kaponan Village distribute their products to middlemen or and to traditional markets.

However, Kaponan village farmer groups do not play a role in marketing agricultural products for members and non-members. It's just that there is one member who is part of the Kaponan village farmer group management who has a network to market agricultural products with greater added value, namely by selling them in supermarkets. However, not all of the crops produced by Kaponan village farmers can be distributed to these supermarkets because supermarkets limit the quantity and quality of the supply of vegetables that come in. This is in accordance with research (Ramadhani et al., 2019), on the Boyolali farmer group which stated that the marketing volume at the Pangudi Bogo farmer group was not appropriate in terms of productivity, from 80 tons/season only less than 40% were able to market while marketing is the spearhead of the business world.

Tengkulak

According to the Indonesia Dictionary, *tengkulak* or middlemen or intermediary traders are traders who buy agricultural products and so on from farmers or first owners. There are many middlemen or middlemen in Kaponan Village who assist farmers in distributing agricultural products. Some of the informants who became middlemen in this study were small-scale middlemen and some were large-scale middlemen. The motivation of informants to become middlemen varies, for example there are those who want to be independent and increase their income and there are also those who want to help farmers collect agricultural products so that farmers are not manipulated by irresponsible middlemen. There are middlemen who re-market the produce from farmers to wholesalers and then wholesalers who will export the produce out of town. However, there are also middlemen who distribute them directly to supermarkets.

“I am just a worker here. Then there is a company, namely PT.ABC which held a meeting for merchants. Our managers were invited to see the ozonation process, then after the guests saw the system and the results, then they just messaged us: “Sir, excuse me, I'm asking for this [technology] and so on. Like that”. Allright, we sell technology from D University. We offer the ozonation technology, then we will check the results, and offer it to supermarkets. It turned out that the supermarkets were interested because they had approached the organic vegetable [market]. What we have been doing here in Kaponan Village is this: We get the vegetables from the farmers. We collaborate with the KWT (*Kelompok Wanita Tani*) of this village, the Kaponan Women Farmer Group. We inform them that we get order from the supermarket. The company cooperates with farmers to produce the vegetables, then our farmers reap the products, which later are processed using an ozonation technology and then sent to the supermarket. The point is that in our area, the agriculture is non-organic, which means they

are produced using chemicals. Then we have technology to remove 80-90% of pesticides. It is useful to process vegetables which previously was produced using chemicals into organic. Why can they be organic because they are processed by ozonation technology, and after the process it will be fresher and the pesticide will be reduced almost 90%. The point is that there will only be 10% pesticide residue left. This will result the best quality, because supermarkets don't want low quality vegetables, otherwise they will be returned or returned. If it is happened, the rest that doesn't received by the supermarket will be sold into the traditional market. The ozone process is actually not expensive because it is aimed at providing healthy vegetables, which is the main goal of our agriculture here, if the price is not to be manipulated by middlemen. Because of what? If farmers are manipulated by middlemen, automatically our farmers' lives will continue to be difficult. With this goal, we want to accommodate the farmers here, so they must be willingly to be directed to plant other commodities and not just chili peppers. We plant according to market needs, instead of according to our will. By this way, we can develop our farmer. This means that farmers are fostered to do planting, the main thing is that they must be good. We also provide production inputs (Production Facilities). Organic production and other inputs, right; so that farmers know that organic goods are more durable and better than non-organic ones. The important thing is that we provide awareness to farmers that in the end this company will hold the farmers. This means that the partnership is: farmers are given facilities such as capital and others, and we will handle the post harvest business. The important thing is that farmers will follow the suggestion from the company.” (TN, May 13, 2022)

One of the informants who became a middleman in Kaponan village worked for the company. The company partners with farmers, particularly from the Tunas Muda Farmers Group. The purpose of this company is to partner and foster farmers, one of which is for the welfare of farmers so that they are not deceived or harmed by middlemen who like to seek their own profit. As a partner, this company provides capital and coaching facilities to farmers to improve the quality of agricultural products and to grow the types according to market needs instead of growing the same commodity over and over. As middlemen, they will buy agricultural commodities from the Farmers Group, process vegetables with ozonation technology which is believed to reduce pesticide residues, and then sell them to supermarkets. If there are agricultural commodities that are not absorbed by supermarkets, these commodities will be resold to traditional markets.

The middlemen of Kaponan Village get a relationship by selling produce which they think is of good quality, but there are also those who get acquainted one by one and some build relationships by holding exhibitions. The work system of middlemen is to buy farmers' agricultural products and then middlemen sell them to wholesalers or supermarkets by adjusting the prices prevailing in the market or with prices that have been set at supermarkets, so the middlemen cannot set the price beforehand. It's just that special treatment is needed for agricultural products that will be marketed to supermarkets to ensure their quality. A study conducted by Purnawan et al. (2021) shows that middlemen have a role in connecting farmers to the final market, so that farmers can get cash quickly. However, farmers receive lower prices because intermediaries take advantage of the difference in prices obtained from farmers' prices and selling prices to large intermediaries or factories. Middlemen also have problems with the unpleasant experience of dealing with farmers.

“Unpleasant experiences sometimes occur, such as badmouthing. For example, the farmer brought an actually a bad item to me, but he said the item he brought was good, and he gave

incorrect information to other farmers, so that other farmers didn't believe me in selling their products." (YM, March 19, 2022)

Most middlemen in Kaponan Village do not provide capital loans to farmers directly. However, if farmers need additional capital they are willing to provide loans without providing interest on the loan. This finding is different from research conducted by Hutabarat (2013), which states that middlemen control the marketing and capital systems and control the credit system for farmers. Agribusiness partnership models often provide smallholders with credit, production inputs, information, and other tools to help them meet the needs of the production process (Priandika et al., 2015). However, none of the farmers and middlemen in Kaponan Village who were involved in this research had a written pattern of cooperative relations. Farmers and middlemen only carry out the buying and selling process without any legal-binding contracts.

“Sometimes I provided capital loans, sometimes I did not because I don't provide credit. If someone needs loan for farming, I can borrow him or her, but it depends on whether the person who borrows is responsible or not, and I don't give loan interest. Therefore, I just provide a loan without interest.” (SR, February 27, 2022)

The network between actors in the distribution of agricultural products can be seen in Figure 2. Figure 2 shows the actors who act as Farmers (P), Farmers Groups (KT), Middlemen (T), Technology (T), Supermarket Traders, and Traditional Market Traders. In this case, farmers can be divided into two, namely farmers who are members of farmer groups and farmers who are not members of farmer groups. Both farmers who are members of farmer groups and who are not members of farmer groups have relationships with several middlemen. Figure 2 shows that although there are several middlemen (who are represented in the scheme by three people), there are middlemen who already have access to the technology (ozonization) and there are those who do not. The access to the ozonation technology has a real impact on the quality of the product, so that the ozonized product is more acceptable to traders in supermarkets. On the other hand, middlemen who do not process their products with ozonation have not been able to sell agricultural products to supermarkets, so they only sell them to traditional markets.

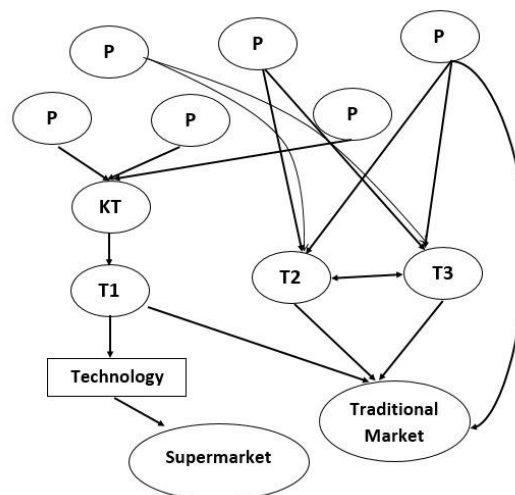


Figure 3. The Network Pattern Among Actors of Agricultural Products in Kaponan Village (P: Farmer; KT: Farmer Group; T: Middleman)

If examined with the Actor Network Theory, it appears that the actors along the distribution chain of agricultural products are not all human individuals. As written by Latour (1996) and Hapsari et al. (2017), that in this theory, networks are not only composed of human entities, but also non-human entities. In this study, it appears that technology is an actor that can control other actors – also known as actans (Hapsari et al., 2017) – because with technology, these agricultural products can be accepted by supermarkets. This shows that product prices are not only determined by the volume of production or the role of middlemen who often play with prices, but also by mastery over technology because technology can improve product quality, which in turn also has an impact on gaining access to supermarkets. Another finding presented in Figure 2 also shows that middlemen who have access to technology and supermarkets prefer to cooperate with farmers who are members of farmer groups than farmers who work independently. This preference is probably due to the ease with which farmers can coordinate if they are in a group compared to if they are alone. This means that through farmer groups, farmers can actually get the opportunity to produce higher quality products that can be sold to supermarkets.

The Role of Marketing Agency in Agricultural Commodities Marketing by Farmers

Marketing institutions are business units or individuals who carry out marketing activities, distribute services and agricultural products to end users, have networks and connections with commercial organizations and/or individuals. Marketing institutions arise from the need for consumers to get the product they want according to the time, place and form. Institutional support for agricultural system development plays an important role in the functioning of each subsystem. Farmer's social capital, including cooperative networks, mutual trust and cooperation, and cooperative arrangements within the agricultural system, influence success. In relation to the development of agricultural trade institutions, it is necessary to analyze input factors, farming, products, marketing and trade policies (Nuraini et al., 2016).

Farmers have various options to choose a marketing agency as a sales target that sets a different price than the price set. Where it affects their acceptance, so that farmers have a certain marketing agency. Marketing is considered as one of the economic activities that affect farmers' income, and one of these activities is to consider the effectiveness of marketing activities. When marketing requires costs there will be price differences or differences between producers and consumers. The occurrence of profits in each marketing chain makes the percentage of farmers different in each marketing channel. Price increases at the consumer level are often not passed on to farmers or producers due to ineffective marketing channels (Nikmaturomah et al., 2016). The number of institutions involved in the marketing of an agricultural product leads to greater marketing benefits. If the trade margin increases, it will affect farmers' income. If there is information, it will be worse if there is price asymmetry. This will in turn affect the transfer of prices from the reference market to a lower market, where the final farmer's price will be the lowest (Anindita and Baladina, 2017).

Marketing institutions, both from producers and traders will also be interconnected. This is in accordance with research conducted by Dewi et al. (2021), which described the marketing institutions involved in clove marketing in Bali including producers - collectors - wholesalers - end users. Research by Nikmaturohmah et al. (2016), also shows that effective marketing channels are the 2nd marketing channel (farmers – small wholesalers - wholesalers - distributors) and the 5th marketing channel (farmers - wholesalers - distributors). Marketing channels Farmers – collectors – wholesalers

– consumers are also relatively and more efficient channels compared to other channels (Permadi, 2017). While Yuniarti et al. (2017) found that in term of rice marketing, there are four actors involved, i.e. the farmers, the rice mills, village collectors, and retails. The research conducted by Ebewore and Idoge (2015) concluded that the effectiveness of marketing channels is only through retailers with higher prices than institutions through intermediaries and retailers. So that high price fluctuations at the marketing agency level will create opportunities for price manipulation, especially by market players who have the power to influence prices. Price transmission information can provide concrete evidence of market competition, decision making and price efficiency, and marketer behavior, which ultimately shows the effectiveness of market marketing channels (Sukiyono & Asriani, 2020).

Study of Trisna et al. (2021) indicates that vegetable marketing in Bali could be accommodated using e-commerce. However, the farmers indicated in the study are usually young farmers who can use information technology easily and who are more receptive to innovation compared to the elder farmers (Trisna et al., 2021).

The Relationship Between Farmers and Middlemen

The relationship between farmers and middlemen according to the farmer's point of view is a relationship that occurs because of trust between them. For some farmers, this relationship causes dependence, because like it or not, farmers have to follow the prices determined by middlemen or because farmers cannot sell their own products so they have to ask for help from middlemen. This is in line with the opinion put forward by Russell (1987) that the presence of middlemen in the agricultural system results in dependence between farmers and middlemen because farmers do not have the knowledge as that of middlemen and this also applies to farmers in Kaponan Village. However, there are also farmers who say that this relationship does not result in dependence. According to the middleman's point of view, the relationship between farmers and middlemen is a cooperative relationship and has become a market law because middlemen help farmers sell agricultural products and middlemen also benefit from this relationship.

“The relationship between farmers and middlemen has been a long-standing market law here, but we don't see middlemen as something negative because there are still many middlemen who think about the welfare of farmers. Without middlemen, farmers cannot work, even though there are one or two manipulative middlemen. The price which is usually manipulated is the chili price, for example Rp. 35 thousand per kilos in the morning, this afternoon it can reach the price of Rp. 30 thousand per kilos even in the afternoon it can decrease again. Actually, it is normal for the price to be up and down, but I say there is a business mafia. Therefore, if the company run smoothly, we can the cut distribution channels, which means that the commodities produced by farmers can directly sold to consumers. Currently, farmers go first to village middlemen and the middlemen sell the products to traders who want to sell them to the market. This practice involves several stages. If, for example, one count for the price of a stage is increased by Rp. 1000, then if the products were passing 4 stages, the price had been increased to Rp. 4000.” (HR, March 13, 2022).

According to the farmer group's view, the relationship between farmers and middlemen is quite good. They need each other because currently access to the vegetable market from Kaponan Village is quite far so that the middlemen are very helpful in distributing products. However, the weakness of farmers is that they cannot determine the price, even though they object to it, they still

can't do anything. The limitation that occurs is actually a transportation problem, bringing agricultural products to a far market will increase the input costs of agricultural products so that farmers prefer to sell them to middlemen even though the price is lower than the standard market price.

"Yes, the main thing is that the relationship between middlemen farmers is good, because access to markets is far away. There used to be a Kaponan market, but now the market is inactive, the vegetable market, so we, the farmers, follow the price set by the middlemen. In my opinion sometimes farmers are disadvantaged because they can't determine the price. They sell it, but just don't know how much it costs. So the weakness is that farmers cannot set prices." (SG, February 27, 2022).

Similar to the results of research conducted by Imaniar and Brata (2020), the results of this study state that the relationship between salak farmers and middlemen in Sigaluh Village has been going well until now because the relationship that exists is not only a work relationship but there are long-standing kinship relationships from a sense of trust passed down from generation to generation by farmers' parents who also entrusted the harvest to the middlemen's family at that time. The social impact of the patron-client relationship between salak farmers and middlemen is a harmonious relationship between the community, salak farmers and middlemen with mutual help and respect. The relevant government agencies can provide exit access for salak farmers so that the price of salak which cannot be fixed on each farmer can have a set price so that farmers do not feel disadvantaged and have free access to the market. The relationship between farmers and middlemen according to the village government has become a daily routine because selling agricultural products will only take a little time if they go through middlemen.

"Such a model – the relationship between farmers and middlemen – has become the daily life of farmers to middlemen, and middlemen to consumers. It will create a surfeit if farmers have to sell their products directly to the consumers. For example, if the farmers harvest a ton of vegetables, it will take a long time if the vegetables will be sold directly to consumers. Whereas, if it is sold through middlemen, it will only takes one day. If vegetables are sold directly to consumers, it will take a long time in addition the risk that the vegetables will be spoiled." (BA, March 13, 2022).

This study found that the relationship between farmers and middlemen was not interpreted badly by both parties, even though there were farmers who felt dependent on middlemen. The study conducted by Sudrajat et al. (2021) show that 95% of farmers in Kubu Raya - West Kalimantan have a positive perspective on middlemen because middlemen assist farmers in selling and transporting their agricultural products. The dependence of farmers on middlemen may be due to the role of middlemen in connecting farmers to the market, so that farmers can get money quickly as happened to farmers in Sanggau, West Kalimantan, even though farmers' products are purchased at low prices (Purnawan et al., 2021). Sudrajat et al. (2021) also reported attachment to middlemen in farmers with high income levels, because this attachment is a farmer's strategy to avoid risk in selling their products.

CONCLUSION AND SUGGESTION

This study found three main actors in the distribution chain of agricultural products in Kaponan Village, namely farmers, farmer groups, and middlemen, in addition to technology, supermarket traders, and traditional market traders. The role of technology as an actor is important because it can affect the quality of agricultural products so that they can be accepted by supermarkets. The role of middlemen in the distribution chain of agricultural products is to assist farmers in completing technical matters such as transportation, so that farmers can save costs for product transportation and save time. The relationship between farmers and middlemen in Kaponan Village is a cooperative relationship that requires each other. This relationship does not create dependence of farmers on middlemen even though there are weaknesses experienced by farmers who cannot determine product prices. But on the other hand, there are benefits that are felt by farmers from middlemen, such as cutting transportation input costs, transportation techniques and distribution time. However, it should be note since this research is a qualitative study, the conclusion can not be generalized. The conclusion is relevant only for the Kaponan village as the location of the study. Further study requires the farmer empowerment in term of implementation of technology, post harvesting treatment, and partnership of middlemen and farmers

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