

THE POTENTIAL OF BLACK PEPPER FARMER GROUPS : ONE OF THE STRATEGIC POLICIES IN STRENGTHENING FARMER GROUPS

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ABSTRACT

One spice that has many functions and benefits is pepper. Pepper is widely cultivated by farmers involved in farmer groups. The role of farmer groups as institutions is able to coordinate the marketing of black pepper so as to improve the bargaining position of farmers. The aims of this study were to the potential of black pepper farmer groups in East Lampung. To obtain the necessary data, this research uses a survey method. The data used in this research are primary and secondary data, which are then processed using qualitative methods. The main data was collected through direct observation at the research location as well as in-depth interviews with 21 administrators and members of the Sido Makmur farmer group, which were conducted using questionnaires from June to October 2022. Data analysis to answer the objectives using qualitative descriptive analysis To analyze problems and analysis potentials faced by farmer groups in increasing market expansion using qualitative descriptive analysis and Focus Discussion Groups (FGD) in order to find internal factors (strengths and weaknesses) and external factors (opportunities and challenges) faced by farmer groups Sido Makmur in increasing the expansion of the black pepper market. The characteristics of farmers include the average age of productive age, the average level of formal education of junior and senior high school graduates, the average area of land cultivated by farmers is above 1 ha, as well as internal and external factors as strategic analysis variables (internal factors: farmer's social capital consists of social networks and good trust, institutions, sufficient group capacity, group characteristics in the form of capital, profits, and limited resources, and external factors: External Factors Policy, where several stakeholders have been assisted in the transfer of science and technology).

Keywords: Black pepper; Farmers characteristic; Lampung province; Potential farmers group

INTRODUCTION

One spice that has many functions and benefits is pepper (Berliana & Supriyatna, 2019). The "King of the spices," black pepper (*Piper nigrum* L.), is a valuable export-oriented spice crop that is prized for its berries, which are both black and white, as well as for its essential oil, oleoresins, and other value-added products (Thampi & Bhai, 2017). Data for 2019 shows that Indonesia ranks third as a pepper exporting country, behind Vietnam and Brazil (Balqis & Yanuar, 2021). With its position as one of the largest pepper production centers in Indonesia, Lampung has contributed significantly to the economic growth of the community and region (Anwar *et al.*, 2018). Thus it was concluded that pepper is in great demand and in demand. Lampung's nickname as



Tanoh Lado has been around for more than half a century (Imadudin, 2016). One of the districts that is the largest supplier of black pepper to the world is East Lampung district. 80% of East Lampung black pepper production is exported abroad. One of the pepper production centers in Lampung Province, East Lampung Regency also received assistance for the development of national pepper plants of 500 ha in 2015 and 550 ha in 2016 (Directorate General of Plantations 2016). However, according to (Ministry of Agriculture, 2020) in recent years, the value of Indonesian pepper exports to several European and American countries has begun to decline. The decline in the volume of Indonesian pepper exports is due to low product quality standards. Because the production system of Indonesian farmers is still conventional, microorganism contamination is one of the causes of low quality pepper. Therefore, when entering the international market, it is very important to pay attention to pepper quality standards because this will increasingly influence selling prices and market demand. This is because demand for Indonesian pepper is very sensitive to price changes (Mahdi and Suprehatin, 2021).

Sukadana Baru Village is one of the villages in Marga Tiga District, East Lampung. Sukadana Baru Village has the largest pepper fields and produces more pepper than Surya Mataram Village. However, the level of pepper productivity in Sukadana Baru Village is in second place, at 0.51 tons/ha, which is still considered low considering the potential production of black pepper per hectare reaches 4 tons (Ambarwati *et al.*, 2020). Sukadana Baru Village has 23 farmer groups. One of the farmer groups is called the Sido Makmur farmer group. Farmers who are members of the Sido Makmur farming group have problems marketing their black pepper. Farmers are faced with an oligopsony market structure. According to Pradyatama *et al.* (2019) the pepper price determination that occurs is predominantly controlled by the parties who buy the pepper, furthermore Fitrah (2013) explained that farmers do not have enough capital to improve the quality of their pepper, so they sometimes sell it to collectors with low quality.

In this buying and selling transaction, collecting traders determine prices based on estimates of water content that they make without any tools. Therefore, it is necessary to play the role of farmer groups as institutions that are able to coordinate the marketing of black pepper so that they can increase the bargaining position of farmers. Listyati *et al.* (2014) explained that the oligopsony market structure, where traders have a stronger bargaining position, can be overcome by efforts to strengthen institutions at the farmer level. According to Hartanti *et al.* (2021) that it is important to strengthen institutions or innovate to diversify pepper-based products that can be produced in Indonesia. Hidayanto *et al.* (2009) and Listyati *et al.* (2014) stated that the development of farmer institutions is very important for several reasons: (1) farmer institutions can solve many agricultural problems; (2) provide continuity in efforts to disseminate technology or technical knowledge to farmers; (3) preparing farmers to compete in a more open economic structure; and (4) the existence of farmer cooperation which can increase the efficiency of farmer resource use.

Seeing the importance of institutional strengthening to improve the quality of black pepper and improve the bargaining position of black pepper farmers. Novalia *et al.* (2021) explained that the strategy used to develop the pepper trade system could be carried out through several activities including strengthening the institutions of pepper farmer groups. According to (Hasan, 2009) the potential a group has can be divided into two, namely internal factors and external factors. Internal factors include land/natural resources, social capital, group capacity, member characteristics and external factors consisting of the Plantation Service, Livestock and Fisheries Service, PPL Guidance, other institutions, education and training and marketing access. However, before increasing the role of institutions, it is necessary to identify the potential of farmer groups as resources that will run institutions effectively and efficiently. Hermanto & Swastika (2011) explains that building group strength can

improve the role and function of the group. This can encourage the behavior of its members to achieve group goals.

The aim of this research is to the potential of black pepper farmer groups in East Lampung. The novelty of this research is because it will look at the institutional potential of black pepper producing farmers. The potential possessed by members of farmer groups can be a provision in strengthening farmer groups so that farming institutions can help improve farmers' bargaining position so that pepper farmers can increase the selling price of pepper.

METHOD

To obtain the necessary data, this research uses a survey method. The data used in this research are primary and secondary data, which are then processed using qualitative methods. The main data was collected through direct observation at the research location as well as in-depth interviews with 21 administrators and members of the Sido Makmur farmer group, which were conducted using questionnaires from June to October 2022. Data and information were collected through observation, field observations, interviews, and research focus. Secondary data is obtained as comparison material from literature, data from government institutions or related agencies, articles, journals and previous research. In addition, researchers observed the behavior of farmer group members when marketing black pepper products. The goal is to determine the potential the group has. In-depth interviews were conducted with respondents and other informants to collect information about group characteristics, farming businesses and problems faced. Age, level of formal education, area of land cultivated by farmers, and internal and external factors owned by farmer groups. Internal variables include social capital, group capacity, and group characteristics, and external variables include PPL guidance and marketing (Hasan, 2009). Explanation of the characteristics of farmer group members in increasing market expansion using descriptive analysis. According to Dewi & Joka (2020) and Moleong (2021) that qualitative research uses many subjective elements, such as informants, research subjects, and researchers themselves. Therefore, they are included in the category of interpretive inquiry.

RESULT AND DISCUSSION

Respondent Characteristics

Farmer characteristics describe how farmers run their farming business and determine the success of their farming business. The characteristics of black pepper farmers also illustrate the problems faced by the Sido Makmur farmer group. The characteristics of farmers include age, level of formal education, area of land cultivated by farmers, as well as the potential possessed by farmers (internal and external factors) as strategic analysis variables (internal factors: social capital, group capacity, group characteristics) and (external factors: PPL and marketing guidance).

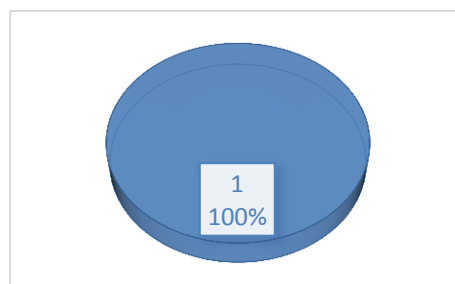


Figure 1. Age of respondents
Source: Data processed, 2023

Age greatly influences a person's mindset, emotionalism and rationalism. Productive age determines decision making regarding membership in farmer groups or membership in other organizations. According to (BPS, 2015) Productive age is workers aged 15 years – 65 years. Based on the following picture, it can be seen that all respondents are farmers of productive age.

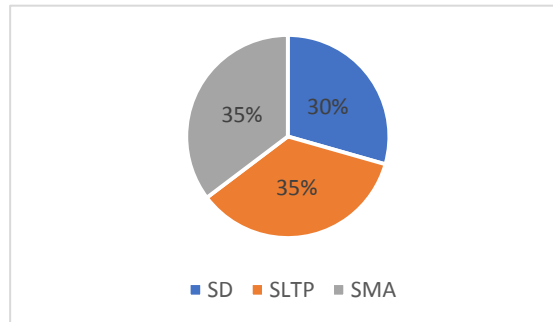


Figure 2. Education level of respondents
Source: Data processed, 2023

The level of education is very important for farm management. The level of education influences farmers' mindset in involvement in farmer groups. Apart from that, education also influences the level of ability to absorb information about the surrounding environment. Farmers with higher education have broader knowledge and insight. The following is a picture of the education level of respondents belonging to black pepper farmer groups in East Lampung. Based on Figure 2, it can be seen that the average respondent farmer is a junior and senior high school graduate.

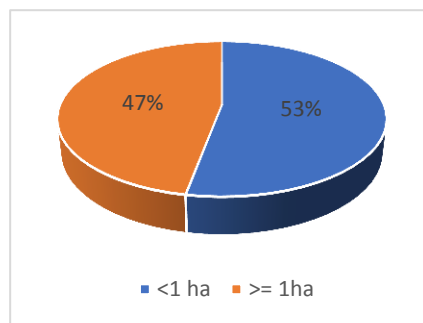


Figure 3. Distribution of Respondents' Garden Land Area
Source: Data processed, 2023

In the agricultural production process, land holding area is very important. Farmers' production and efficiency are closely related to the size of their land holdings. The use of inputs or production factors will be more effective on large areas of land than on narrow areas of land. The land area used by respondents at the research location is described below. Black pepper farmers in Marga Tiga District are not smallholders because the average size of their plantations is 1.14 ha. Smallholder farming households are households that use less than 0.5 hectares of land, according to BPS (2015).

Characteristics of Black Pepper Farming

The distribution of respondents' answers regarding the characteristics of pepper farming can be seen in Table 1. Based on the results of the analysis, it can be seen that on average the respondent farmers have been carrying out pepper farming activities in East Lampung for a long time and these farming activities were pioneered by the community's own initiative. Farming activities do not involve labor outside the

family even though the average farming area exceeds 1 ha of pepper plantation. So far, pepper marketing has not been assisted in its marketing by farmer group institutions, this is in accordance with the explanation (Novalia *et al.*, 2021) that pepper farmers still sell their crops individually because there is no awareness of organizing or forming groups, so farmers have a weak bargaining position. Collecting traders still determine the price of pepper. Farmers sell their pepper harvest to collecting traders, with payment always in cash and carry. Currently, respondents have taken advantage of the integration of agriculture and animal husbandry. Farmers have raised chickens which are then processed into organic fertilizer and then collected by farmer groups to be commercialized so as to gain profits outside of the pepper business.

Table 1. Distribution of respondents' answers regarding the characteristics of black pepper farming

No	Information	Conclusion
1	Long time carrying out pepper farming activities	7-22 Years
2	Involvement of family members in farming	Doesn't involve
3	Average pepper yield per week	50-100 Kgs
4	Sale of pepper products	To Toke seller
5	Development of garden farming until this year	Keep Going Down
6	Average income from pepper each month	500 thousand- 1 million
7	Group assisted marketing	Not helpful
8	Jammed payments from sales tokens	There isn't any
9	Pioneer of pepper plantation business	Society itself
10	Utilization of garden land and resources for livestock	It's already a chicken farm

Source: Primary data processed, 2023

Potential of Farmer Groups

Shaliha *et al.* (2017) explained that strategies that can be implemented in developing white pepper agribusiness include increasing the role of institutions at the farmer level, and marketing. Therefore, there is a need for knowledge about the potential of institutions or farmer groups as a driving force for the realization of pepper development. The potential possessed by group members is divided into 2 factors, namely internal factors and external factors (Hasan, 2009).

Internal factors

Internal factors influence the formation of strengths and weaknesses (S and W). This factor is related to what happens in the group, which also influences the formation of group decisions. Hasan (2009) describes that these internal factors include various management functions including social capital, group capacity, and group characteristics.

1. Social capital

Farmer group social capital is the assets, values and businesses formed by farmer groups based on similar interests and environmental conditions (society, economy, resources), which also determine the development of farmer group activities (Widodo & Sugiyanto, 2015; Harahap & Herman, 2018). According to Tedjaningsih & Sufyadi (2020) there is a relationship between social capital variables and together they have a real relationship between the social capital owned by farmers and the sustainability of farming. Fraser *et al.* (2021) Economic empowerment and strengthening social capital together can improve welfare and reduce poverty. Social capital consists of trust, institutions, and social networking (Putnam, 1995).

a. Social network

Based on the table, it can be seen that members of black pepper farmer groups in East Lampung generally have carried out social networking. One form of application of social networks is participation, reciprocal exchange between rubber farmers and toke, solidarity, and cooperation between rubber farmers who are trying to improve their quality of life (Syofian *et al.*, 2020). Black pepper farmers in Marga Tiga sub-district are collaborating with the government in obtaining assistance with pepper seeds. Respondent farmers have the perception that the savings and loan cooperatives currently within the group can be developed and have the potential to be developed more widely. Group members generally have good interpersonal communication with fellow members, this is formed due to frequent interactions in the form of regular meetings held by the group. These group activities provide very useful benefits for members.

Table 2. Distribution of respondents' answers regarding the social networks of black pepper farmer group members

No	Information	Conclusion
1	Collaboration with other parties in farming	Collaboration with the Government
2	Respondents' perceptions about institutions with which they can collaborate	Cooperative Institution
3	Communication with fellow group members	Often
4	Joint activities carried out by groups	Have activities
5	The group is active and provides benefits	Active and useful

Source: Primary data processed, 2023

b. Trust

Trust, also known as mutual trust, is the willingness to take risks in social relationships that is based on the belief that others will act in accordance with expectations and will not do something detrimental to oneself or the group (Harahap & Herman, 2018; Rumagit *et al.*, 2019). Trust has emerged within farmer groups. Group members collaborate with related agencies or other institutions as a form of trust in the government. There is a sense of mutual need by both parties. The role of the department and academics in charge of transferring technology is to really help farmer groups find solutions to the problems of stem rot, root rot, production processes that comply with GAP and procedures for drying black pepper. Apart from that, members of farmer groups have very close relationships, this relationship is very beneficial because members can share information or knowledge gained.

Table 3. Distribution of respondents' answers regarding the trust of black pepper farmer group members

No	Information	Conclusion
1	In starting a collaboration	Based on need
2	The basis for cooperation is carried out	Shared needs
3	Kinship factors influence the collaboration that is established	Influential
4	The close relationship between members exceeds that of farmer groups	Limited to farmer groups
5	Members who were invited to collaborate were disappointing	Never

Source: Primary data processed, 2023

c. Institutions

Institutions consist of farmer values, standards, sanctions and institutional rules (Syofian *et al.*, 2020). The existing institutions in the Sido Makmur farmer group are that the group has rules for providing financing to farmer groups and if farmers violate the rules set by the group, the respondent farmers will receive sanctions set by the group.

2. Group capacity

Planned social change, institutional capacity development aims to encourage innovation and change (Anantanyu, 2011). In this case, group capacity is divided into 3, namely capacity in terms of capital, profits and resources.

a. Capital

Capital has a very important role in farming productivity and farming income (Langit & Ayuningsasi, 2019; Hermawan & Andrianyta, 2013; Pradnyawati & Cipta, 2021; Puspita, 2020). Based on Table 4, it can be seen that the average pepper farming capital or 53% of respondents comes from farmer group capital. Farmer groups have a loan cooperative which provides capital loans to members of the farmer group. The loaned capital is in the form of fertilizer or other production factors. Cooperatives also provide money lending services. The profit sharing given is 2% of the monthly loan. The form of member solidarity is reflected in helping each other in capital lending activities. If a member wants to borrow more than the borrowing limit, another member must be involved in borrowing so that the accumulated loan becomes larger.

Table 4. Distribution of respondents' answers regarding the capital of black pepper farmer group members

No	Information	Conclusion
1	Origin of capital for pepper farming	Farmers
2	Capital assistance or seeds from other parties	Local government
3	Financial assistance	Farmer group cooperatives
4	The group helps with capital or finance	Help
5	Fellow members help if a member has capital difficulties	Help each other

Source: Primary data processed, 2023

Farmer cooperatives in groups provide benefits and if developed with member commitment they can have a positive impact on farmers. Rahayu & Harahap (2018), and Indarti (2015) explained that agribusiness cooperatives function to protect farmers from vegetable price levels, give farmers a bargaining position in marketing vegetable products, and can also function as a capital provider, helping farmers in cases of loss of land and shelter to resolve their financial problems.

b. Profit

Based on Table 5, it can be seen that the selling price and quality level of black pepper are determined by the buyer. This indicates that the market structure faced by farmers is an oligopoly market. Farmers have a low bargaining position so they are unable to determine the price of their crops. This is in line with the research results (Pradyatama *et al.*, 2019). that the behavior of the black pepper market in West Lampung. In terms of determining and establishing dominant prices, marketing institutions act as buyers, but still reach price agreements through a negotiation process. According to members of the farmer group, the price of black pepper has fluctuated in recent years, reaching IDR 30,000 per kg. Farmers feel that the selling

price of black pepper is so cheap that 64.71 percent of respondents think that income from black pepper does not meet their needs or is not feasible.

Table 5. Distribution of respondents' answers regarding group members' business profits black pepper farmer

No	Information	Conclusion
1	The standard price set for the sale of pepper	Set by the buyer
2	The party that determines the level of black pepper	Buyer
3	Prices are determined by mutual agreement	Prices are determined by mutual agreement
4	Income meets needs	Does not meet the

Source: Primary data processed, 2023

c. Resource

Resources influence company growth (Amam *et al.*, 2019). Based on Table 6, it can be seen that 23.53 percent of respondents stated that the average workforce required for pepper farming is 3 people who come from the workforce in the family. Natural resources at farming locations really support the productivity of black pepper farming, but respondent farmers face capital problems when they have to rejuvenate old pepper (Sari *et al.*, 2022).

Table 6. Distribution of respondents' answers regarding the resources of black pepper farmer group members

No	Information	Conclusion
1	Labor required in pepper gardening	3 people
2	Natural resources support farming	Support
3	Perceived obstacles in rejuvenating old pepper	Capital

Source: Primary data processed, 2023

External Factors

External Factors The policy explains that in strengthening farmer group institutions there must be external factors originating from parties outside the farmer group (Central Government, Regional Government, Business World, non-governmental organizations, extension workers, and so on).

Table 7. Distribution of respondents' answers regarding external factors of black pepper farmer group policy

No	Information	Conclusion
1	Initial knowledge of gardening	Parent
2	Sharing of knowledge and new technology	Will share abilities
3	PPL and related departments teach technology	Once
4	Training from other parties	Once
5	Apart from the government, which party provides training	Private companies

Source: Primary data processed, 2023

Based on Table 7, it is known that 41 percent of respondents stated that their initial knowledge of pepper farming at the research location was the knowledge of their parents. Farmer members also share knowledge and transfer technology to improve black pepper farming. Farmer technology transfer comes from many stakeholders, including related agencies, PPL, and academics who carry out the tridharma of community service.

CONCLUSION

The characteristics of farmers include the average age of productive age, the average level of formal education of junior and senior high school graduates, the average area of land cultivated by farmers is above 1 ha, as well as internal and external factors as strategic analysis variables (internal factors: capital farmer's social network consists of social networks and good trust, sufficient group capacity, group characteristics in the form of capital, profits, and limited resources, and external factors: External Factors Policy, where several stakeholders have been assisted in the transfer of science and technology).

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