

Empowering farmer groups in Yogyakarta, Indonesia, through a participatory development communication model

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Abstract The Participatory development communication model is a form of communication process among farming actors to achieve empowerment. In the era of openness and democratisation, participatory communication is an appropriate approach to encourage farmer groups to be fully empowered. With that, the objective of this research are as follows: formulate and develop participatory development communication models and strategy for empowerment. This study uses a positivistic paradigm with a survey method. The objects of farmer groups are scattered in various places and their characteristics are heterogeneous and widespread, making it suitable for a positivistic approach. The results of the study are: (a) Implementation of participatory development communication model for empowerment and influenced by the characteristics of farmer groups, the quality of information, the role of development agents, environmental support and the use of social capital; (b) strategy for increasing the implementation of participatory development communication: the quality of the characteristics of farmer groups, information, development agents, environmental support and social capital.

Keywords: empowerment model; farmer group; participatory development communication

INTRODUCTION

The development of the agricultural sector in Indonesia is an essential side of integrated national development. Agricultural development is the main and special priority that should be proclaimed in national development. The reason is that agriculture is the outermost sector of clothing, food and housing. Food is a basic human need related to life, because it involves the livelihood of many people. The agricultural sector contributes to economic development, such as higher household median incomes, more developed capital markets, and better physical infrastructure. Economic development as a constellation of phenomena that usually bring or accompany greater economic prosperity, (Jayachandran, 2022). More than half of Indonesia's population depends on agriculture for their livelihood. It is shown that more than half of Indonesia's territory is in rural areas, the population in rural areas is larger than urban residents. Rural areas have larger agricultural areas than other areas and are easily utilised by villagers as jobs (BPS 2022, 2023).

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Sustainable natural resource management and green urbanisation are essential as they help in the wise use of resources without unnecessary use and without affecting the needs of future generations. This happens due to the development of the times and dynamic changes in the global environment. (Zahoor et al., 2022). In addition, eight factors influence the weakness of agricultural development in Indonesia, these are- 1) post-harvest; 2) infrastructure; 3) farmer's mental attitude; 4) level of knowledge; 5) mastery of technology; 6). access to capital; 7) land ownership; 8) skill level (Yigibalom et al., 2020). These eight factors are closely related to the ability of human resource management as a driver of agricultural development and natural resource management as a form of agricultural development.

Agricultural development has been continuously proclaimed by the Government since post-independence beginning in the New Order era with the green revolution until it reached the peak of agricultural development progress with food self-sufficiency in 1984. However, after food self-sufficiency, agricultural development slumped again with a food crisis, along with the world food crisis. Agricultural development continues by trying to overcome the problem of domestic food security with agricultural revitalization policies. The agricultural sector is a very strategic and important component of the national economy, as it generates a large portion of the country's gross domestic product, provides most of its export revenues and employs millions of people. (Hidayah et al., 2022)

The agricultural sector continues to improve itself by disbursing various agricultural development programs aimed at increasing the empowerment of farming communities, especially in rural areas with the main target being reducing poverty. In 2007, an agricultural program called SL-PTT (Integrated Crop Management Field School) was launched with the main target being farmer groups engaged in food crops. This program has a participatory principle, meaning that all farming business actors are expected to participate directly in farming with the aim of this program increasing community empowerment towards community welfare (Technical Instructions SL-PTT, 2013). Empowerment of farming communities is expected to increase with the SL-PTT program, of course with a strengthening process, particularly through the participation of farmer groups in the implementation of participatory communication according to the principles of the program.

In facing the demands of increasing competitiveness in this era of globalisation, it is necessary to design a communication model and strategy for agricultural development that prioritises local communities with their cultural dimensions as power holders. The new paradigm of communication places farmer groups as the subject of development which has always been the object of development, the focus of agricultural development is directed at local communities. According to Guy Bessette, participatory development communication is a powerful tool to facilitate development, placing the community first in the development of community self-organisation. He argues that the term should be analysed in the context of facilitating the active involvement of various community groups, as well as other stakeholders involved and the many development and research institutions working with communities and decision makers (Ibuot et al., 2021). With the community participatory development communication model, the government, stakeholders, NGOs, community shops and development agencies are involved in deliberation to plan, implement, monitor and evaluate development programs. The deliberation model used is a dialogical communication model so that all those involved in development planning are responsible for the resulting program.

According to Kurniawan (2024), convergence communication is defined as various types of information that can produce and determine relationships between two or more individuals, so the act of communication must be studied according to the view that states who is related to whom. Communication convergence is more of a mutual interaction of social structures in making changes and contributing the best to common progress.

According to Tufte and Mefalopulos (Dwiki & Ashton, 2023), there are several stages of participatory development communication programs in empowerment that emphasise community and stakeholder participation in decision making related to their desired changes. Mefalopulos further emphasised that Participatory communication to encourage two-way communication among various participants in a program meeting that horizontal or two-way communication strategies that encourage direct and active community participation are the cornerstones of participatory development communication. Researchers (Amin, 2022) aim to address communication in developing community participation and carrying out the role of

communication in development. Development is the right alternative in overcoming various problems that arise in society. Communication has a central role in increasing community participation to contribute to planning and development.

A model is a representation of a phenomenon, not a phenomenon. A model is a form of illustration to make it easier for us to understand a phenomenon. A model abstractly represents important traits and omits unnecessary details of communication in the real world. A model is an analogous image that abstracts and selects parts of a whole (Hariyanto, 2021). Based on various concept descriptions of the model, the following is a model concept related to the communication process of participatory development. The communication model is a process of mutual influence-the influence between one element and another element imprinted in a social system. This means that the communication model should be designed within a system that aligns with the system's goals. Each element is interrelated with each other and strengthens each other's work to achieve the goals to be achieved. Therefore, the communication model formulated and developed is a process of mutual influence: the influence between communication actors in a communication system. To achieve the objectives of the participatory development communication process within the development communication model, a systematic path is forged to achieve effective results by preparing a strategy that is right on target.

(Anwar et al., 2022) Communication strategy functions as a bridge between organisations and external stakeholders utilising a diverse communication media tools. Furthermore, Anwar in his research applies a communication strategy based on collaboration between institutions and supported by digital media, building convergent communication, and providing excellent service. The government also uses marketing communication strategies based on the preparation of tourism messages, the use of media, communication strategies with characteristics, objectives, and strategic positions. According to Effendy (Anwar et al., 2022), communication strategy is a guideline for communication planning and management to achieve a goal. Strategy does not function as a road map that only shows direction but must show how operational tactics are. According to Cangara, the stages of communication planning include five stages, namely: Research, Planning, Implementation, Evaluation and Reporting (Anwar et al., 2022), (Pitts et al., 2022).

With the various concepts of communication strategies stated above, provide an overview of the communication strategies used in this study. The intended communication strategy is to plan and manage communication resources that will be used in the communication process in the management of rice farming to increase the empowerment of farmer groups. Communication resources are an important element that can produce a participatory development communication process, therefore it is important for farmers to carry out appropriate communication strategies in using these resources in order to achieve effective and efficient goals.

The implementation of participatory development communication in rice farming management is not enough just to carry out dialogue between farmer groups, but other elements are needed that are able to increase farmer group participation in the dialogue process. Farming management through a participatory development communication process is a fact in the field that the process is not only carried out in a participatory manner, but first socialisation about farming is carried out. This means that the farm management program is carried out with two models, namely linear and participatory. Therefore, to achieve the goal, the two models are combined by involving other elements that influence the implementation of participatory development communication.

To be more successful in the participatory communication process above, it is supported by findings (Gregoria A. Yudarwati a, 2022) explaining that collaboration and separation of powers can make decisions democratically and participatory. This model emphasises the importance of a participatory communication process by making the community the subject of development. The community embraces community assets in the form of local knowledge and contextual wisdom and characteristics of the collective community. This model offers a community-centric approach that encourages progressive community empowerment and ownership.

The method used in the process is a communication strategy using a systems approach, because the management of rice farming through a participatory communication process is in a

social system such as a concept (Carlson AB, Crilly PB, 2002), the communication system is a unity of a number of elements. The design of a communication strategy in the implementation of participatory development communication to increase the empowerment of rice farmer groups with a systems approach, starting with input is passed on to the process and will produce outputs and effects (outcomes).

Agricultural development is one of the efforts to empower farmers, which is a comprehensive system. This means that within the system, various elements must function effectively to achieve the goals of the system. The intended goal is that farmer groups/farming communities become empowered by professional agricultural development. Supported by the Farmer Empowerment Law in the form of a farmer empowerment policy to improve farmers' welfare, this policy prepares agricultural infrastructure to increase farmers' capacity and skills in increasing production, modern and sustainable agriculture. (Lukman Adam a b, Jia Jin b, 2022) To achieve this goal, the agricultural development process must be carried out by development actors together and the entire community can fully participate in the implementation of agricultural development. This process can be implemented properly, if all elements in the agricultural development system work together effectively. Cooperation can take place well through an effective participatory development communication process.

Based on the above background, the researcher has formulated the problem -what are the appropriate participatory development communication models and strategies for increasing the empowerment of farmer groups? The research objectives are as follows: To formulate appropriate participatory development communication models and strategies and to increase the empowerment of farmer groups.

METHODOLOGY

The research location chosen was Kulon Progo Regency and Sleman Special Region of Yogyakarta, because it organises farming with the rice GP-PTT program. The researcher chose the population with a group approach, namely farmer groups in Sleman and Kulon Progo districts who received the GP-PTT (Integrated Crop Management Application Movement) program. The research population was 268 farmer groups, by taking a sample of 170 farmer groups determined based on the Solvin formula(Kriyantono, 2022). Based on this formula by taking an error rate of 5%, a sample of 170 farmer groups was obtained.

The farmer group consists of administrators and members, so the researcher chose 1 administrator, and 2 active members are chosen randomly. The unit of analysis is the farmer group so that the scores of the questionnaire results are added up from 3 group members who represent the farmer group. Sampling using cluster sampling, the sample is determined proportionally specifically, Sleman Regency $115/268 \times 170 = 73$ groups and Kulon Progo Regency $153/268 \times 170 = 97$ groups. The research used a positivistic paradigm with a quantitative methodology, and the research method used is a survey. The data analysis was descriptive, while the impartial analysis used the SEM analysis model.

RESULTS AND DISCUSSION

Participatory Development Communication Model

Quantitative data was obtained Based on the research conducted in the field. So to interpret the quantitative data, a model analysis was carried out in the form of SEM analysis. This study is processed through an analysis of the factors that influence the behaviour of farmer groups in implementing participatory development communication to increase the empowerment of rice farmer groups. Analysis by SEM method using LISREL 8.70 software (Habibi, 2023). The model suitability test shows that the hybrid model obtained is a good fit as shown in Table 1. The model generated through research is applied to the population of farmer groups. The analysis produces a structural model as shown in the following figure 1.

| Table 1. Testing the goodness of fit model | | | |
|--|---------------|---------|------------|
| Goodness-of-Fit | Cut-off-Value | Results | conclusion |
| RMSEA | ≤ 0.08 | 0.07 | good fit |
| GFI | ≥ 0.90 | 0.91 | good fit |
| CFI | ≥ 0.90 | 0.91 | good fit |
| IFI | ≥ 0.90 | 0.91 | good fit |

Source: Author (2024)

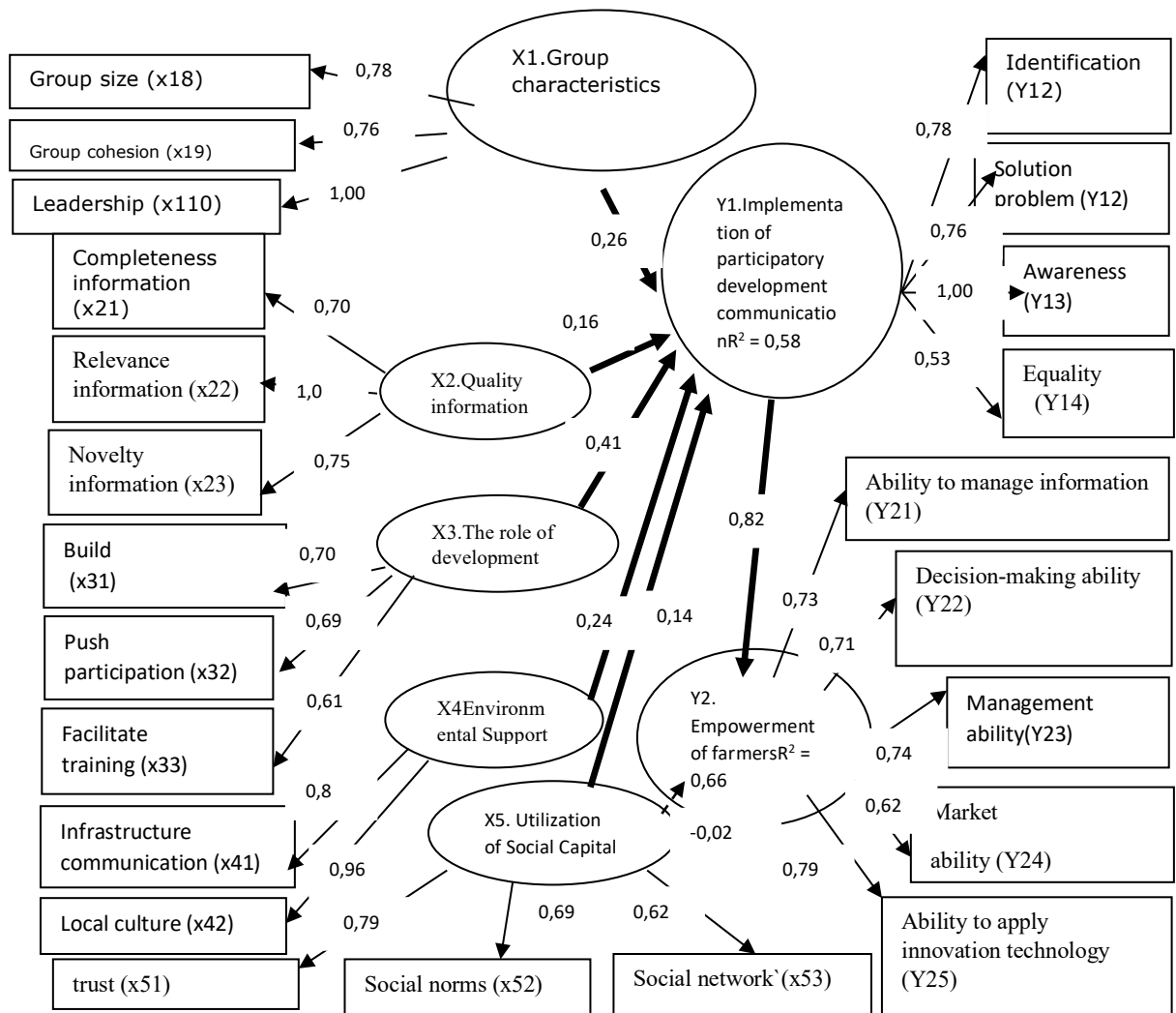


Figure 1. Structural model and factors that influence the implementation of communication participatory development and the level of empowerment of farmer
Source: Author (2024)

Based on Figure 1, the SEM test results show that there are five factors that influence the behaviour of farmer groups in the implementation of participatory development communication for farmer group empowerment, these are- farmer group characteristics, quality of information, role of development agents, environmental support and utilisation of social capital. And the level of empowerment of farmer groups is influenced by the implementation of participatory development communication. The above findings are reinforced by researchers (Ratriyana et al., 2022) development communication oriented to the completion of infrastructure development by involving youth in planning the use of renewable energy as a symbol of youth empowerment in rural communities. Research made by Oktarina et al. (2022) states that the participatory communication of female farmers in the urban farming program is at a moderate criterion as seen from the atmosphere of dialogue, dialogue participation, and the level of convergence. Factors that have a significant effect on participatory communication are formal education, land area, empowerment competence, exposure to communication media, and institutional support.

In the direction of the findings, there are only a few other variables that also affect participatory communication. Ibuot et al. (2021) explained that communication participation is establishing relationships with local communities, bringing together local communities to identify development problems, and preparing communication for solutions to problems

identified by local communities. This activity is based on the theory of participatory communication which emphasises dialogue or two-way communication. As a means to provide consensus for sustainable action in development activities. There is a difference with Ibout's findings above with the following research findings (Gebeyehu & Jira, 2023). The findings show that participatory communication can mobilise society. Development agents and scientists have less influence on the implementation of participatory development communication because of the top-down process. In addition, farmers are not given enough time due to a lack of interaction and communication regarding agricultural problems.

Participatory Development Communication Model in Improving Farmer Group Empowerment

Based on the various concepts about the communication model described in the literature review above, the researcher intends to discuss the ideas of this research in a communication model based on farmer community participation as an effort to increase the empowerment of farmer groups. Based on the SEM analysis of the hypothetical model from empirical data, accompanied by a qualitative explanation, it found a relationship between the variables of the implementation of participatory development communication and the empowerment of rice farmer groups. The implementation of participatory development communication which is manifested by: Problem identification stage, solution to farming problems, self-awareness and equality between farmer groups in the deliberation process has a positive influence on the empowerment of rice farmer groups in Kulon Progo and Sleman Regencies. Meanwhile, the implementation of participatory development communication is directly influenced positively by variables such as: characteristics of farmer groups, quality of agricultural information, role of development agents, environmental support and utilisation of social capital. Supported by research (Amin, 2022), a participatory approach is the right step psychologically to facilitate communication with the community. This will increase the ideas, creativity, and competence of the community in communicating their opinions on the planned and implemented development programs

Based on this analysis, it is possible to develop a participatory development communication model as an effort to increase the level of empowerment of farmer groups. The empowerment of farmer groups is the outcome of the communication objectives of participatory development manifesting actions rather than merely knowledge and attitudes. This means that farmer groups are able to manage agricultural information that has been received from other parties, are capable to make joint decisions regarding farming, are able to manage rice farming, are able to market their farms, and are able to implement agricultural innovation technology in the form of more modern rice cultivation. In line with the findings of the research, according to Sugito et al. (2022), this means that community empowerment requires support and participation from various parties such as farmer women groups, extension workers and facilitators as the main actors, the government with its policies and budgets, then the private sector or companies with their CSR programs. Participatory communication is the key to success in designing and implementing empowerment with CSR programs. Companions, extension workers, and village heads carry out harmonious dialogical communication that needs to be maintained for cooperation and maintain cohesiveness in the implementation of the program.

In line with the research (Suharti et al., 2022), by showing that a participatory communication model is very strategic to empower urban farming families. Participatory communication provides an opportunity for the community, in this case the urban farming family, to determine the form of empowerment, as well as with whom to partner. The audience has a community, a business network that plays a role in providing ideas and support in developing their business, so that it is successful and can help empower the local community.

The empowerment of farmer groups can be enhanced through elements or variables of the implementation of participatory development communication that is carried out effectively and efficiently by fellow rice farming actors. Simultaneously, what causes the implementation of participatory development communication to increase cannot be separated from several communication behaviours carried out by farming actors. The elements that give this influence are group characteristics, quality of program information, the role of development agents, environmental support and the use of social capital. The description of the SEM analysis, which is equipped with the qualitative description above, the following can be designed a participatory

development communication model as an effort to increase the empowerment of rice farmer groups as shown in the following figure 2.

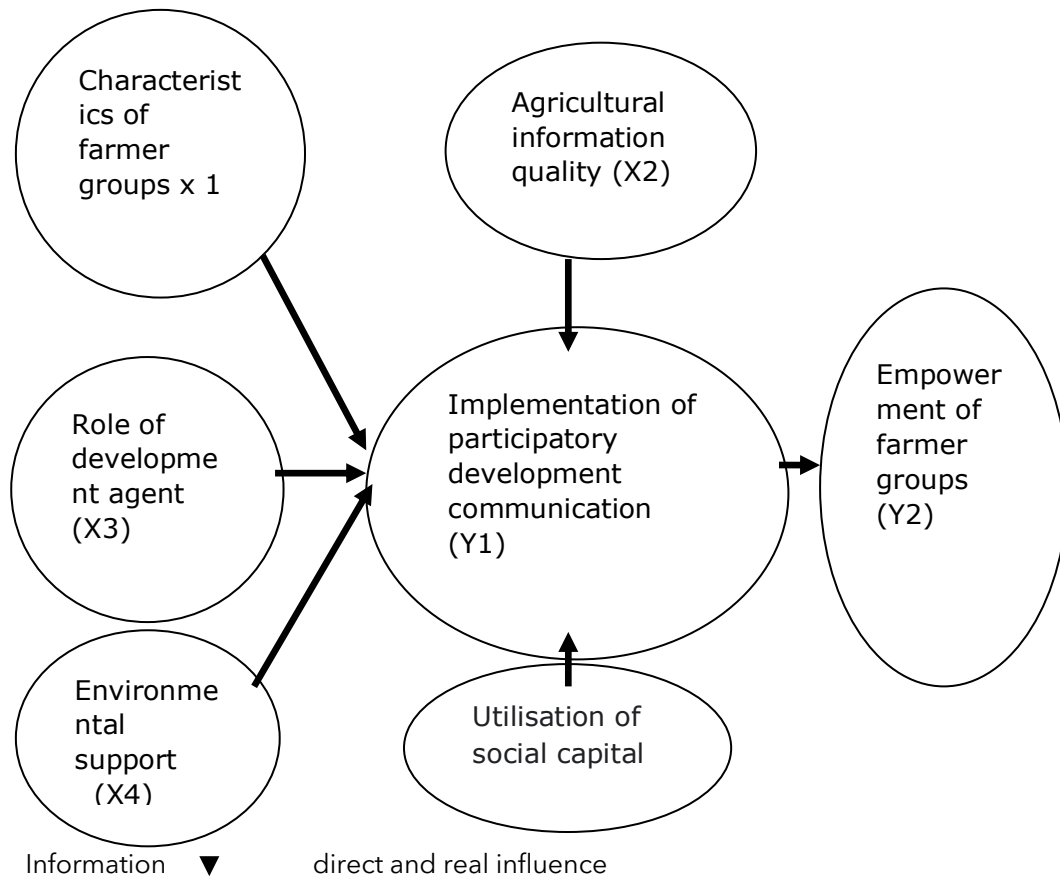


Figure 2. The participatory development communication model for empowerment of rice farmer groups
Source: Author (2024)

The participation of farmer groups in the implementation of participatory development communication is influenced by elements or variables: characteristics of farmer groups, quality of information, role of development agents, environmental support and utilisation of social capital. The magnitude of the influence of these elements varies, some are large, and some are small, including: the characteristics of farmer groups have an effect of 0.26 or 6.76 percent, the quality of information is 0.16 or 2.56 percent, the role of development agents is 0.41 or 16.81 percent, environmental support 0.24 or 5.76 percent and the use of social capital 0.14 or 1.96 percent. The five instruments that influence the implementation of participatory development communication, the role of development agents, have a dominant influence of 16.81 percent. The results showed that the implementation of participatory development communication was in the low category, especially on three indicators namely: problem solving, awareness and equality. This low level is due to the low number of variables that affect the implementation of participatory development communication, such as group characteristics, information quality, role of development agents, environmental support, and the use of social capital. The five variables are the role of development agents in a high category and the use of social capital also has a high category but in the element of social capital there is a low category, specifically social networks. Group size is in the low category while group cohesion and leadership are in the high category. These three indicators reflect the characteristics of the group.

In the direction of research of Matoneng & Falo (2022)., it shows that social capital will increase if conditioned by the empowerment of convergent communication through indicators of dialogue level, interaction level, and participation level. The author's research findings state that the actors who play a stakeholder role in the author's research are agricultural extension agents almost in line with the research (Sulaiman et al., 2023), finding that the unique characteristics and aspirations of stakeholders have a significant influence on the communication

process of participatory development planning. Stakeholder communication in rural development planning, by improving communication with local governments. The quality of development planning and programs, at the grassroots level, depends on the competence of stakeholders, their ability to articulate interests based on the genuine needs and challenges of society, and their capacity to transform them. interests in public policy through effective communication with government organisations.

The quality of information is in the low category which is reflected in the completeness of the information in the low category, the relevance of the information in the high category and the newness of the information in the low category. The environmental support variable reflected by the communication infrastructure is in the high category meaning that there are communication facilities available, local culture is in the low category meaning low utilisation of local culture in farming management. And the last is the social capital variable that is reflected by social trust is in the high category, social norms are in the high category meaning that farmers are obedient to existing social norms, and social networks are in the low category meaning that farmers are less in contact with social groups in cooperation for rice farming.

Based on the magnitude of the influence of the elements of communication behaviour, a development strategy can be made to increase farmer participation in the implementation of participatory communication with the aim of increasing the empowerment of farmer groups. The strategy intended in this paper will be described further below:

Participatory development communication strategy for farmer group empowerment

Figures 1 and 2 show that: the empowerment of farmer groups is influenced by the implementation of participatory development communication; the characteristics of farmer groups influence the implementation of participatory development communication, the quality of agricultural information, the role of development agents, environmental support and the use of social capital. Based on the factors that influence and are influenced in the participatory development communication model as an effort to increase the empowerment of farmer groups, a strategy is formulated which is an operational description of the model that has been formulated above.

The participatory development communication strategy for increasing the empowerment of rice farmer groups is a formulation designed from deductive studies and empirical testing of SEM (structural equation modelling) analysis. The analysis study above found that there are five variables that have an influence on the implementation of participatory development communication, the influence of these five variables is not large enough, specifically only 16% for the role of development agents but other variables below 10%. The five independent variables, each indicator that reflects these variables, have a low category, two variables overall have a low category, namely the quality of information and environmental support. This is related to the low level of the five variables that affect the implementation of participatory development communication, which causes the low participation of farmers in the implementation of participatory development communication and the low level of farmer empowerment.

A strategy was designed to increase farmer participation in the implementation of participatory development communication as an effort to increase farmer group empowerment. The intended strategy is certainly related to some of the weaknesses of the variables that affect the implementation of participatory communication to increase farmer empowerment, the strategy is designed as follows: 1). Strategies to increase farmer participation in the implementation of participatory communication through improving the characteristics of farmer groups related to group size; 2). Strategies to increase participation in the implementation of participatory development communication through improving the quality of information; 3). Strategies to increase farmer participation in implementing participatory development communication through improving the elements of the role of development agents; 4). Strategies to increase farmer participation in the implementation of participatory development communication through increased environmental support; 5). Strategies to increase farmer participation in the implementation of participatory development communication through the effective use of existing social capital in the community.

Findings in the field related to strategies to increase the participation of farmer groups in the communication of participatory development to achieve the empowerment of farmer

communities through several strategies. The strategy is to improve the character of farmers, the quality of agricultural information, innovation agents, environmental/cultural support, and social capital owned by farmer groups. This finding is supported by research (Suryono et al., 2023) of the Sragen Business school student group empowerment model through non-formal education on entrepreneurship and local cultural communication. The following is an illustration of the design of a participatory development communication strategy to increase the empowerment of farmer groups (Figure 3).

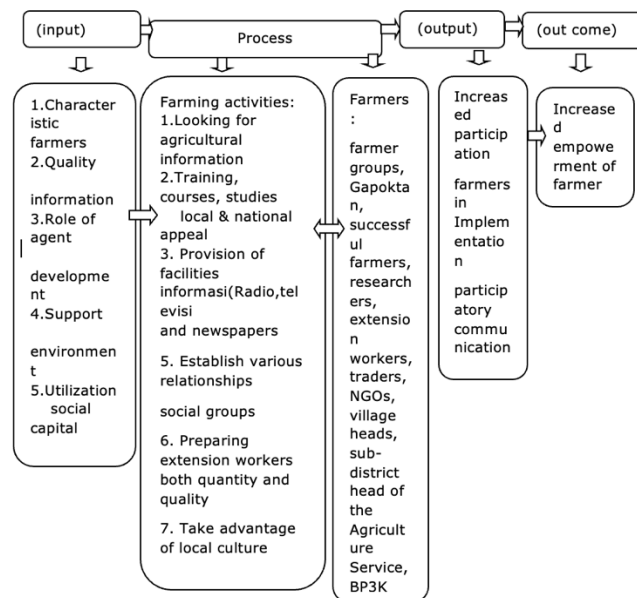


Figure 3. Design of development communication strategy participatory to increase the empowerment of farmer groups
Source: Author (2024)

The design of a strategy for developing farmer participation in the implementation of participatory development communication to increase the empowerment of farmer groups with a systems approach based on system performance has been described in a literature review. System performance starts from the input (input) is forwarded to the process and will produce the output (output) and the effect (outcome). To produce the right strategy, it is first analysed the environmental conditions that affect the processes in the system. Analysis of deficiencies and priorities that need to be improved based on the results of SEM analysis. The strategy is designed based on the model obtained from the SEM analysis as shown in Figure 3 above.

Based on Figure 3, the inputs in the design of the strategy for developing farmer participation in the implementation of participatory development communication are: characteristics of farmer groups, quality of agricultural information, role of development agents, environmental support and utilisation of social capital. The characteristic of farmer groups that should be improved is group size. Based on field findings, the group size is in the low category. The variables of information quality that should be improved are the completeness of the information and the newness of the information because these two indicators are in the low category. The role of development agents that should be improved is facilitating farmer training because this indicator is in the low category. The environmental support variable that should be improved is the effective and appropriate use of local culture, because this indicator is in the low category. The social capital utilisation variable that should be improved is social network because this indicator is in the low category.

The next step after all the input elements is corrected according to the criteria that needed to be improved to carry out the processes that are in the system. The process involves implementing a strategy aligned with the variables that needed an improved process. These are the steps: 1). Communication strategy through improving the characteristics of farmer groups; 2). Communication strategy through improving the quality of information; 3). Communication strategy through increasing the role of development agents; 4). Communication strategy through increasing environmental support; 5). Communication strategy through effective use of

social capital. The findings of the study of H. et al. (2024), communication strategies in the form of a synergistic communication model that integrates training, mentoring, financial support, and regulatory frameworks to foster self-reliance, reduce poverty, and ensure sustainable development. The study also highlights the need to engage all stakeholders in a coordinated effort to drive the success of Indigenous Papuan empowerment, ensuring that development initiatives are aligned with local needs and cultural contexts

The completed activity process is expected to achieve an output in the form of increased participation of farmer groups in the implementation of participatory development communication which is reflected in: increased participation of farmer groups in the communication process at the problem identification stage, increased participation of farmer groups in the communication process at the stage of discussing problem solutions, increasing awareness to farmer groups to want to participate in the communication process in group deliberation, eliminating the level of status differences (social, economic, political, educational and environmental), upholding equality respecting the rights of others, democratisation in conveying aspirations/opinions.

The next expectation as an impact or effect resulting from the process of implementing participatory development communication is the act of communication in the form of increasing the empowerment of rice farmer groups. Increased empowerment of rice farmer groups which is reflected in: farmer groups can manage the information received, are able to manage their farming business, are able to market the results of their farming business. The findings of the study of Astawa et al. (2022), explain that the communication strategy in community empowerment is analysed into 5 (five) basic components in the form of: the sender of the message is the village apparatus to the community. The message conveyed was in the form of information through primary communication channels as a form of socialisation of the empowerment program. Secondary communication is the delivery of information through official letters addressed to each Banjar, through the official website of Singapadu Village. The following is a clear description of several participatory development communication strategies through various improvements to the basic elements that affect the implementation of participatory development communication as an effort to increase the empowerment of rice farmer groups.

Strategy to Increase Participation in the Implementation of Participatory Development Communications through Improvement of Group Characteristics

Characteristics of farmer groups as reflected by group size, group cohesion and group leadership. The group size in the implementation of farming activities is in the low category, specifically the group size is less effective in terms of the communication process at the deliberation level, so this indicator needs to be improved or improved. While the indicators of group cohesion and leadership are in the high category, they do not need to be improved.

The strategy of implementing participatory communication through increasing or improving the characteristics of farmer groups. Research who prepared a participatory communication strategy through preparing small farmers to participate in the application of participatory communication to increase the empowerment of small farmers. The strategy carried out is to distribute the members of the farmer group effectively and efficiently. Therefore, the farmer group members are distributed equally to each group, based on educational, economic, experience and social levels. Findings (Siriwan JIANCHATCHAWANWONG1, 2024) research reveals that the Banwa Housewives Group conducts participatory communication in the development of community products. This includes joint thinking/joint planning, joint policy formulation, joint implementation, joint allocation and benefit sharing, as well as joint monitoring and evaluation to improve the design of Batik cloth bags.

Furthermore, placing group members proportionally according to effectiveness in the deliberative process means that each group has not too many or too few members because it will affect the participatory communication process, enabling farmer groups as a space for dialogue to discuss agricultural issues according to the culture of the people of Yogyakarta who like to gather and consult together.

The above strategy shows the placement of farmer group members based on the characteristics of group members based on education, economy and experience. In line with the findings of the study (Sulaiman et al., 2024) it is explained that the placement of stakeholders or

organisers of participatory communication is based on the results and analysis of stakeholder age, social status, organisational experience, and motivation to participate in development planning deliberations, so that a design model is built that displays the characteristics of stakeholders who can support participatory communication by designing and implementing development programs.

Strategies to Increase Participation of Farmers' Groups in the Implementation of Participatory Development Communication through Improving the Quality of Information

The quality of program information is a variable that has a positive and direct effect on the participation of farmer groups in the implementation of participatory development communication in farmer group meetings. The quality of information is reflected in the completeness of information, relevance of information and newness of information. There are two instruments that reflect the quality of information that has a low category, namely information completeness and information freshness. These two instruments are categorised as low or incomplete information received, and information received is less interesting, so improvements need to be made. The improvement in question is to complete the information thoroughly and in detail and make the information interesting so that farmers are interested in knowing it. The steps that need to be taken are:

Preparing special agricultural print media in the form of newspapers, magazines, and agricultural brochures, because with these special media the information presented is always complete and detailed. These media must be permanent and sustainable so that farmers can always access complete, new and interesting information to use. The availability of new agricultural information will make people interested in reading and listening to it. Furthermore, prepare electronic media such as television and radio, provide special agricultural broadcasts with the right broadcast time so that they are easily accessible to farmer groups. Broadcasts in this media must be permanent and continuous so that farmers can always access complete and detailed information.

Preparing information sources from agricultural experts by adding extension workers and researchers. The existence of these experts means that the information conveyed can be more complete and detailed. Furthermore, prepare information sources from agricultural experts by preparing adequate and professional agricultural extension workers and agricultural researchers who are always ready to help farmer groups in providing complete and detailed agricultural information. The existence of these experts means that the information presented can be complete and more detailed, as well as new and interesting information for use by farmer groups.

Strategies for participation in communication through print and electronic media as well as preparing information sources from agricultural experts or researchers, by improving the quality of information. This strategy is in line with the research conducted by Muniruddin et al. (2024). This study confirms that traditional isolated communities have a major impact on poverty alleviation. This training and socialisation strategy mainly aims to improve the independence, awareness, and skills of community members. This strategy aims to increase the use of local wisdom and mutual respect for talents, create constructive conversations in the community to facilitate shared learning and cooperatively achieve community economic development and empowerment.

Strategy to Increase Participation in the Implementation of Participatory Development Communications through Increasing the Role of Development Agencies

Elements of the role of development agents are elements that have a positive and direct and dominant influence on farmer group participation in the implementation of participatory development communication in farmer group meetings. The role of development agents is reflected by building farmer awareness, encouraging farmer participation, and facilitating training. There is one instrument that reflects the role of development agents who have a low category, namely facilitating training. One of these instruments is categorised as low or not facilitated in rice farming management training, so improvements need to be made. The improvement is meant to facilitate training by extension workers as an effort to increase the knowledge of farmer groups about rice farming management. The findings of the study are different from the findings above as shown in the following study made by Gebeyehu & Jira

(2023) that shows that if applied correctly, development actors and agricultural experts believe that participatory communication is essential in mobilising communities. However, the routine does not allow development agencies and experts to use a participatory approach. In addition, farmers are not given enough time due to a lack of interaction and communication regarding agricultural problems. Farmers and development agents do not have continuous, programmatic, and frequent contact. Communication between development agents and high-level agricultural experts is mostly top-down in nature

The role of development agents is important for the communication process, that only certain people have the ability to mobilise society, especially in participating. Therefore, it prepares enough extension workers to provide training or assistance for farmers. In addition to enough, more proportional extension workers are needed, which means placing extension workers according to their competence or expertise, especially now that the extension sector has embraced polyvalent extension workers. Each extension worker must provide counselling in various fields such as livestock, fisheries and agricultural extension carried out by one extension worker. Prepare training for farmer groups on an ongoing basis facilitated by related agencies, such as the Agriculture Office and extension workers. In line with the findings (Rodiah, Dida, 2022), shows that the dialogical communication process between the women heads of families and PEKKA administrators reveals their problems and receives support to solve their problems. Through interpersonal communication, women heads of families can position themselves as subjects. Interpersonal communication in the PEKKA program, both as practice and knowledge sharing, is considered effective as a means of empowering women heads of families.

Preparing agricultural extension workers as participatory communicators in every farmer group meeting. Agricultural extension workers build awareness of farmer groups to recognize the potential of farmers and their knowledge abilities so that they are willing and aware to participate in the implementation of participatory development communication. Agricultural extension workers encourage farmer groups to develop a dialogue on rice farming problems and their solutions. Researcher (Nurkomala et al., 2023) The role of Community Empowerment Institutions (CEI) in realising development is as a forum for community participation in development planning and implementation, activities to formulate community aspirations in development planning are usually carried out through deliberations involving all CEI administrators in Tanjung Karang Permai Village and dynamiser.

Strategy for Increasing Participation in the Implementation of Participatory Development Communications through Increasing Environmental Support

Environmental support is an element that has a positive and direct influence on farmer group participation in the implementation of participatory development communication in farmer group consultations—environmental support reflected by the communication infrastructure and local culture. Local cultural instruments that reflect environmental support have a low category. The strategy that needs to be improved is to increase environmental support in the efficient and effective use of local culture.

The environment's carrying capacity is an element where the communication process takes place, so it is important to pay attention to its existence because it is one of the elements that affect the communication process. Environmental factors that affect communication include the physical environment, socio-cultural environment, psychological environment and time dimension. The steps that need to be taken are:

Providing counselling and socialisation to all farmer groups for the process of awareness of the importance of using local culture effectively and efficiently, the local culture in question is mutual cooperation, cooperation, and good manners. This means making modifications in such a way but the essence or meaning of the culture is maintained and remembered by the people. With this cultural renewal, people will no longer hesitate to take advantage of this culture.

Strategy for Increasing Participation in the Implementation of Participatory Development Communications through Increasing the Utilisation of Social Capital

The social capital variable is an element that has a positive and direct influence on farmers' participation in the implementation of participatory development communication in farmer group consultations. The utilisation of social capital is reflected in social beliefs, social norms and social networks. One of the indicators that reflects the use of social capital has a low category,

namely social networks. With a low category, the strategy that needs to be carried out is to improve these indicators by increasing the use of social capital from the aspect of social networks. The steps that need to be taken are:

Social norms that are no longer in line with the times, especially the development of agricultural innovation technology need to be updated according to the needs of farmer groups. Furthermore, make cooperation agreements with various agricultural professional organisations and with agricultural entrepreneur groups to increase agricultural productivity. Expanding social relations with social groups, especially agricultural expert groups, through meetings, training courses, comparative studies. Finally, forming farmer group cooperatives that are economically oriented as well as democratic and participatory to strengthen social networks for cooperation.

CONCLUSION

The participatory development communication model in improving farmer group empowerment is a process of influencing the characteristics of farmer groups, the quality of information, the role of development agents, environmental support and the use of social capital on the implementation of participatory development communication in farming management, which produces an output in the form of increasing farmer group empowerment. Based on the communication model that occurs, a participatory development communication strategy is obtained for the empowerment of farmer groups through improving: the quality of group characteristics, the quality of information, the role of development agents, environmental support and the use of social capital.

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