

Factors Affecting Horticultural Farmer Empowerment Programs in Telaga Jaya Subdistrict

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Abstract

This study aims to analyze the effect of communication factors, human resource competence, financial resources, and program implementers' attitudes through management mediation on the effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency. This is a quantitative study. The subjects in this study were 90 people. The data source was primary data obtained through questionnaires. Data analysis was quantitative descriptive analysis and SEM-PLS. Communication, human resource competence, financial resources, the attitude of program implementers, and the management of the horticultural farmer empowerment program have a significant effect on the effectiveness of the horticultural farmer empowerment program by 85.40%. Similarly, the factor of program management has a significant effect of 82.20%. The results of the indirect effect show that the management of the horticultural farmer empowerment program can only serve as a good mediator for human resource competency.

Keywords: Horticulture, Empowerment, Village Funds

INTRODUCTION

The Ministry of Villages, Disadvantaged Regions, and Transmigration encourages the use of Village Funds to achieve food security in an independent, collaborative, and sustainable manner in accordance with the mandate of the Village SDGs. The Food Security Program is directed at (1) increasing the affordability and adequacy of diverse, high-quality, nutritious, and safe food; (2) increasing the productivity and income of farmers and fishermen by strengthening their capacity, improving access to production inputs, providing agricultural and fisheries infrastructure, and encouraging mechanization and the use of

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technology; (3) diversifying food and nutritional quality; (4) improving the business climate and competitiveness; and (5) strengthening sustainable food systems (Food Estate development) (Ministry of Agriculture Strategic Plan, 2022).

Village Funds are one of the policy instruments introduced by the government to improve development in rural areas in Indonesia (Agustina et al., 2019; Elmina et al., 2022). These Village Funds are provided to villages with the main objective of improving the welfare of village communities, including farmers. The agricultural sector is one of the sectors that has remained resilient amid the pandemic. As a pillar of the food sector, agriculture has continued to grow positively while other sectors have contracted. This is because 93% of Indonesian farmers are poor, making the role of village governments in poverty alleviation through agricultural sector interventions crucial (Hirawan & Verselita, 2020).

Empowering farmers in horticultural commodity cultivation is very important given the great potential of this sector in contributing to income and food security at the local and national levels (Harahap et al., 2023; Prasetyono et al., 2017). However, even though Village Funds have been allocated for farmer empowerment programs, there are still many challenges and problems that need to be overcome in order for these programs to run effectively. Therefore, this study aims to examine the effectiveness of the use of Village Funds in supporting horticultural farmer empowerment programs in various villages in Indonesia.

Communication by organizers plays a crucial role in determining the effectiveness of farmer empowerment programs, especially in the context of horticultural farmers who often face challenges in accessing information and adopting innovations. Effective communication, such as the delivery of clear, targeted, and two-way information, enables farmers to understand the program's objectives, the benefits of agricultural technology, and resource management strategies, thereby increasing active participation and the application of the knowledge gained. Conversely, poor communication, such as a lack of feedback or language that is not appropriate for the farmers' level of understanding, can lead to miscommunication, low motivation, and program failure in achieving long-term outcomes, such as increased productivity and economic welfare (Untari et al., 2022; Wewra et al., 2024).

Human resources are a very important element for achieving the goals of any government organization. When a government organization is filled with competent employees, it will be very easy to achieve the goals of that government organization. Therefore, the first task of the government at this time is to achieve and improve the quality of human resources in every existing government agency. (Akmul et al., 2023; Jafar et al.,

2023). The better the human resources, the easier it will be to achieve the intended target, which in this case is the effectiveness of farmer empowerment.

Village Funds, as a financial resource, play a very important role in empowering farmers, increasing agricultural productivity, and reducing economic inequality in rural areas (Damar et al., 2021; Wahyuddin et al., 2020). This not only benefits farmers, but also the community as a whole and national food security. The effectiveness of Village Funds in supporting farmers can also contribute to overall village development. Improved farmer welfare will create a domino effect in driving better economic and social development in rural areas and contribute to more optimal farmer exchange rates in accordance with established standards.

Gorontalo Regency, as one of the regions in Gorontalo Province, has been severely affected by the Covid-19 pandemic, which has caused the loss of jobs through layoffs (PHK). According to the online news portal medcom.id, there are workers who have been laid off and workers who have been furloughed (Pondalos & Santi, 2021), resulting in a significant increase in unemployment rates in Gorontalo Regency. To address this issue, the utilization of village funds can be maximized for various productive activities in the agricultural sector, particularly horticultural farming, which is dominant in Telaga Jaya Subdistrict and serves as the primary agricultural economic activity. Regarding the effectiveness of the use of village funds in horticultural farmer empowerment programs, research was conducted on village governments in Telaga Jaya Subdistrict. Observations show that the management of village funds still faces problems such as corruption, misuse of funds, and lack of transparency, and even the allocation of funds for the agricultural sector is still very minimal. Empowerment programs that are designed in general terms without considering the specific needs of the village or Telaga Jaya Subdistrict have the potential to fail to achieve the expected results, especially since farmers are often not actively involved in the planning and implementation of the programs. This condition causes farmers to lack a sense of ownership of the program, resulting in suboptimal impact.

Furthermore, many horticultural farmers in the Telaga Jaya sub-district of Gorontalo Regency have limited knowledge and skills in effective agricultural techniques. This can hinder the effective use of Village Funds allocated by the village government in an effort to strengthen farmers' welfare and village food security. Horticultural farmers in Telaga Jaya District, Gorontalo Regency, need adequate access to seeds, fertilizers, pesticides, and modern agricultural technology, but not all farmers have equal access to these resources, especially if village funds are not managed properly, namely if BUMDes (Village-Owned Enterprises) still play a minor role in various agricultural business needs, even though BUMDes has great potential for profit in the agricultural sector. Based on the above

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description, a study is needed to examine the effectiveness of the utilization of village funds () for horticultural farmer empowerment programs in Telaga Jaya Subdistrict, Gorontalo Regency.

The concept of effectiveness is key in evaluating the extent to which a program achieves its objectives. Research by Anantanyu et al. in (Ledjab et al., 2025) shows that the effectiveness of development programs in the agricultural sector is greatly influenced by three main factors: accuracy of targets, sustainability, and community participation.

LITERATURE ANALYSIS AND METHODOLOGY

This study was conducted in Telaga Jaya Subdistrict, Gorontalo Regency, which consists of 5 villages, namely: Luwoo, Hutadaa, Bunggalo, Bulota, and Buhu. The research sample consisted of horticultural farmers, village officials, village supervisory bodies, and BUMDes managers, totaling 90 people. For the analysis stage, multiple linear regression analysis was used with the help of the SEM-PLS tool, which is a field of statistical study that can test a series of relationships that are usually difficult to measure simultaneously. SEM is a multivariate analysis technique that combines factor analysis and regression (correlation) analysis, with the aim of testing the relationships between variables in a model, both between indicators and their constructs and between constructs. PLS (Partial Least Square) is a component- or variance-based structural equation model of SEM. PLS is an alternative approach that shifts from a covariance-based SEM approach to a variance-based approach. The following is the SEM-PLS equation for the " " (Ulum et al., 2014) :

$$Z = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 Z + \varepsilon$$

Where:

Y = Effectiveness of the Horticultural Crop Farmer Empowerment Program

A = Constant, the value of Y when X = 0

$\beta_1 - \beta_5$ = Regression coefficients, which indicate changes in the value of Y when there are changes in the values of X and Z

X₁ = Communication

X₂ = Human resource competency

X₃ = Financial resources

X₄ = Program implementer

attitude

Z = Program Management

E = Error term, which is the error rate of the estimator in the study

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RESEARCH AND RESULTS

Coefficient of Influence Values (*Inner Model*)

The Partial Least Square function can be grouped into two types, namely the inner model and the outer model. The outer model is more geared towards testing validity and reliability. Meanwhile, the inner model is more geared towards regression, which is used to assess the influence of one variable on another. Path analysis and Structural Equation Analysis using Smart PLS are used to show how strong the effect or influence of independent variables is on dependent variables. Meanwhile, the coefficient of determination (R-Square) is used to measure how much endogenous variables are influenced by other variables. The results of the analysis of the R Square level for the entire equation are presented below:

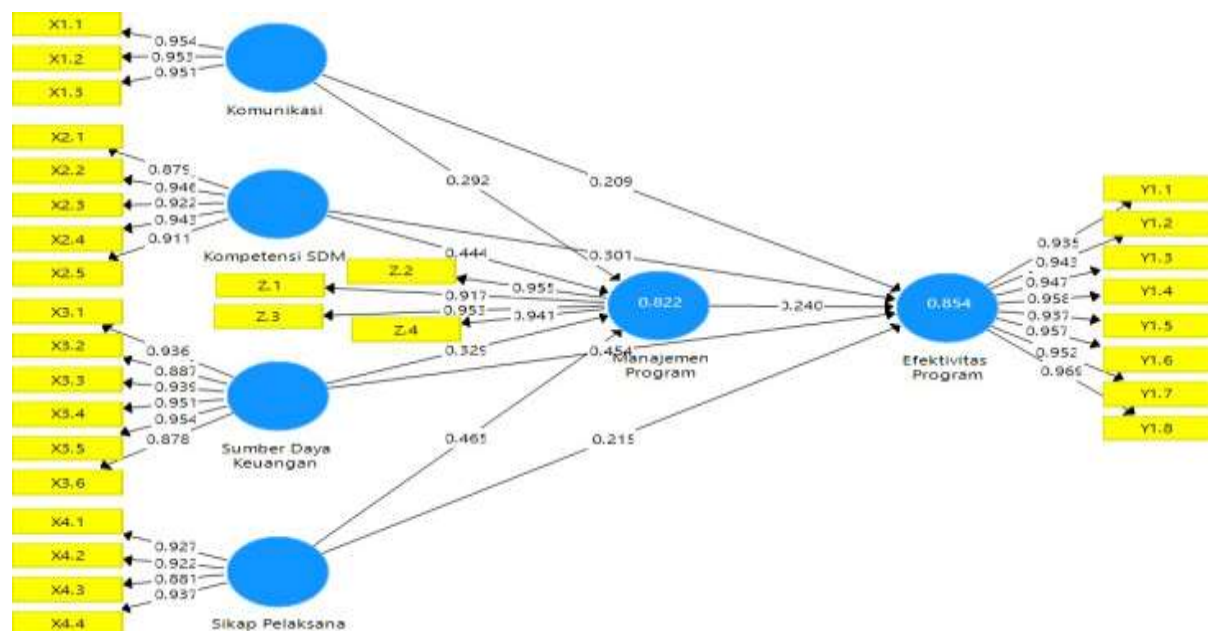


Figure 1 Partial Least Square (PLS) Algorithm

Based on the figure above, the determination results can be described as follows:

- The influence of communication, human resource competence, financial resources, and the attitude of implementers on the management of horticultural farmer empowerment programs**

Overall, it can be interpreted that the R Square value of 0.822 means that 82.20% of the influence of communication, human resource competence, financial resources, and implementer attitudes on the management of horticultural farmer empowerment programs in Telaga Jaya District, Gorontalo Regency. Meanwhile, the remaining 17.80% is influenced

by other variables outside the research model. The coefficient of determination result of 82.20% is greater than the standard coefficient of determination of 66.70%, indicating that Communication, Human Resource Competency, Financial Resources, and Implementer Attitude toward the Management of the horticultural farmer empowerment program is substantial, meaning that there is a significant simultaneous influence from the four variables, which further means that the equation meets the *goodness of fit* test.

b. The influence of communication, human resource competence, financial resources, implementer attitudes, and horticultural farmer empowerment program management on the effectiveness of horticultural farmer empowerment programs

Overall, it can be interpreted that the R Square value of 0.854 means that 85.40% of the influence of Communication, Human Resource Competence, Financial Resources, Implementer Attitude, and Management of the horticultural farmer empowerment program on the effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency. Meanwhile, the remaining 14.60% is influenced by other variables outside the research model. The coefficient of determination of 85.40% is greater than the standard coefficient of determination of 66.70%, meaning that communication, human resource competence, financial resources, implementer attitudes, and horticultural farmer empowerment program management on the effectiveness of the horticultural farmer empowerment program fall within the substantial realm, meaning that there is a significant simultaneous influence from the three variables, which further implies that the equation meets the goodness-of-fit test.

Hypothesis Testing Results

Overall, it can be interpreted that the R Square value of 0.854 means that 85.40% of the influence of Communication, Human Resource Competency, Financial Resources, Implementer Attitude, and Management of the horticultural farmer empowerment program on the effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency. Meanwhile, the remaining 14.60% is influenced by other variables outside the research model. The coefficient of determination result of 85.40% is greater than the standard coefficient of determination of 66.70%, indicating that Communication, Human Resource Competency, financial resources, implementer attitudes, and horticultural farmer empowerment program management on the effectiveness of the horticultural farmer empowerment program () fall within the substantial realm, meaning there is a significant simultaneous influence from the three variables, which further implies that the equation meets the goodness-of-fit test.

Table 1. Hypothesis Testing Results

Type of Influence	Effect	t Statistic	P-Value
Direct	Communication->Program Management	1.771	0.077 ^{ns}
	Human Resource Competency->Program Management	3.299	0.001***
	Financial Resources->Program Management	1,873	0.062 ^{ns}
	Attitude of Implementers->Program Management	2.486	0.013**
	Communication->Program Effectiveness	1.595	0.111 ^{ns}
	Human Resource Competency->Program Effectiveness	2.667	0.008***
	Financial Resources->Program Effectiveness	3.376	0.001
	Attitude of Implementers->Program Effectiveness	1.331	0.184 ^{ns}
	Z->Program Effectiveness	2.266	0.024**
Indirect	Communication->Program Management->Program Effectiveness	1.442	0.150 ^{ns}
	Human Resource Competency->Program Management->Program Effectiveness	1.997	0.046**
	Financial Resources->Program Management->Program Effectiveness	1.516	0.130 ^{ns}
	Attitude of Implementers->Program Management->Program Effectiveness	1.442	0.150 ^{ns}
^{ns} not significant *. Significant at the 0.1 level (2-tailed). **. Significant at the 0.05 level (2-tailed). ***. Significant at the 0.01 level (2-tailed).			

Source: PLS Processing, 2024

Based on the table above, the results of the hypothesis testing can be interpreted by classifying the effects of the variables:

Direct Influence

1) The Effect of Communication on the Management of Horticultural Farmer Empowerment Programs

The t-statistic value for the effect of communication on the management of horticultural farmer empowerment programs was 1.771 with a probability value (P-value) of 0.077. When compared, the t-count value of 1.771 is smaller than the t-table value of 1.989. The P-value is greater than the probability value of 0.05 ($0.077 > 0.05$), so H_{a1} is

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rejected, meaning that communication has a positive but insignificant effect on the management of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency. The positive effect means that the better the communication, the better the impact on the optimization of the management of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency.

This insignificant effect means that many farmers in rural areas have low literacy and education levels, which makes it difficult for them to understand the technical information conveyed through communication. Open communication between farmers and program organizers is sometimes hindered by cultural norms or social hierarchies. For example, farmers may be reluctant to voice their opinions or ask questions out of respect or fear of being considered ignorant. These social barriers can reduce the effectiveness of communication in conveying important information and obtaining the feedback needed to improve the program.

Managers also need to optimize communication, which plays a very important role in optimizing the management of horticultural farmer empowerment programs. When communication between all parties involved, including the government, agricultural extension workers, farmers, and the private sector, runs smoothly and effectively, information and knowledge can be disseminated more efficiently. This allows farmers to gain faster and more accurate access to information on the latest agricultural techniques, proper fertilizer use, and best practices in pest and disease management. In addition, good communication also enables constructive feedback. Farmers can easily convey the problems or obstacles they face to extension workers or related parties, so that appropriate and quick solutions can be provided. With effective communication, the programs designed can be implemented more efficiently and the results achieved will be more optimal, bringing great benefits to the welfare of farmers and the development of the agricultural sector in the region.

2) The Influence of Human Resource Competency on the Management of Horticultural Farmer Empowerment Programs

The t-statistic value of the influence of human resource competence on the management of horticultural farmer empowerment programs was 3.299 with a probability value (P-value) of 0.001. When compared, the t-count value of 3.299 is greater than the t-table value of 1.989. The P-value is smaller than the probability value of 0.05 ($0.001 < 0.05$), so H_{a2} is accepted, which means that human resource competence has a positive and significant effect on the management of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency. A positive effect indicates that more competent

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human resources will have an impact on the management of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency.

Increasingly competent human resources will have a positive impact on program management. Human resource competence covers various aspects, ranging from technical knowledge, practical skills, to managerial and effective communication skills. When agricultural extension workers, program staff, and farmers have high competence, each stage of the empowerment program can be carried out more efficiently and effectively. In-depth and up-to-date technical knowledge is very important in horticultural crop management. Competent human resources are able to apply modern agricultural techniques, such as the proper use of fertilizers and pesticides, the selection of superior plant varieties, and efficient irrigation methods. Thus, agricultural productivity and quality can be significantly improved. Proficient practical skills are also key in daily operations. Well-trained farmers can practice proper cultivation, manage land effectively, and utilize agricultural equipment optimally. This not only increases crop yields but also reduces the risk of losses due to errors in agricultural practices.

Good managerial skills enable program organizers to plan, organize, direct, and supervise empowerment activities in a more structured manner. Competent staff can manage resources more efficiently, ensuring that every aspect of the program, from budgeting and procurement to distribution, runs according to plan. Effective communication skills are vital in ensuring that the necessary information is conveyed clearly and well understood by all parties involved. Competent agricultural extension workers can explain new technologies and methods to farmers in an easy-to-understand manner, thereby minimizing errors and increasing farmers' acceptance of innovation.

Competent human resources can also encourage more productive collaboration and partnerships with various parties, including the government, research institutions, and the private sector. This effective collaboration can open access to more resources, knowledge, and technology, which will ultimately strengthen empowerment program management. Human resource competence is a key factor that determines the success of horticultural farmer empowerment program management in Telaga Jaya District. With competent human resources, programs can be implemented more effectively, efficiently, and sustainably, providing optimal benefits for improving farmer welfare and agricultural sector development.

3) The Influence of Financial Resource Competency on the Management of Empowerment Programs for Horticultural Farmers

The t-statistic value of the influence of financial resources on the management of horticultural farmer empowerment programs was 1.873 with a probability value (P-value) of 0.062. When compared, the t-count value of 1.873 () is smaller than the t-table value of 1.989. The P-value is greater than the probability value of 0.05 ($0.062 > 0.05$), so H_{a3} is rejected, which means that financial resources have a positive but insignificant effect on the management of horticultural farmer empowerment programs in Telaga Jaya District, Gorontalo Regency. A positive effect indicates that the management of the horticultural farmer empowerment program in Telaga Jaya Subdistrict, Gorontalo Regency, will improve in line with the adequacy of financial resources.

The result is insignificant because many other aspects also influence the success of empowerment programs besides finance, such as the availability of knowledge and technology, human resource skills and competencies, and community support and participation. For example, poorly trained farmers or lack of access to modern agricultural technology can hinder the effectiveness of programs even if there are sufficient funds. Nevertheless, adequate financial resources are the backbone that supports the success of horticultural farmer empowerment program management in Telaga Jaya Subdistrict. With sufficient and well-managed funds, the program can be run more smoothly, effectively, and sustainably, bringing significant positive impacts on the welfare of farmers and the development of the agricultural sector in Telaga Jaya Subdistrict.

The availability of sufficient and well-managed financial resources is a crucial factor in ensuring the smooth running and success of empowerment programs. Adequate financial resources enable the implementation of various activities necessary to achieve program objectives, ranging from training, equipment provision, to product marketing. Good financial management also ensures transparency and accountability in the use of funds. With transparent management, all parties involved can monitor and evaluate the use of funds effectively, avoid misuse, and ensure that every penny invested brings maximum benefits to the program.

4) The Influence of Implementers' Attitudes on the Management of Horticultural Farmer Empowerment Programs

The t-statistic value of the influence of implementers' attitudes on the management of horticultural farmer empowerment programs was 2.486 with a probability value (P-value) of 0.013. When compared, the t-count value of 2.486 is greater than the t-table value of 1.989. The P-value is smaller than the probability value of 0.05 ($0.013 < 0.05$), so H_{a4} is

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accepted, which means that the attitude of the implementers has a positive and significant effect on the management of the horticultural farmer empowerment program in Telaga Jaya Subdistrict, Gorontalo Regency. A positive influence indicates that the attitude of the implementers contributes positively to the management of the horticultural farmer empowerment program in Telaga Jaya Subdistrict, Gorontalo Regency.

The positive and professional attitudes of program implementers, including agricultural extension workers, field coordinators, and project leaders, have a major impact on the success and sustainability of the program. A responsive and caring attitude towards farmers' needs is very important. Implementers who show sincere concern and responsiveness to farmers' problems and needs can build strong and trusting relationships. When farmers feel listened to and cared for, they are more motivated to actively participate in the program and apply the advice or technology provided. A proactive attitude in finding solutions also plays an important role. Proactive implementers do not just wait for problems to arise, but also strive to prevent them through careful planning and appropriate initiatives.

Therefore, a positive, professional, and highly dedicated attitude plays a key role in the management of horticultural farmer empowerment programs in Telaga Jaya District. This attitude not only increases farmer trust and participation but also ensures that every aspect of the program is carried out properly, effectively, and sustainably, thereby providing a significant positive impact on the welfare of farmers and the development of the agricultural sector in Telaga Jaya District, Gorontalo Regency.

5) The Influence of Communication on the Effectiveness of the Horticultural Farmer Empowerment Program

The t-statistic value for the effect of communication on the management of horticultural farmer empowerment programs was 1.595 with a probability value (P-value) of 0.111. When compared, the t-count value of 1.595 is smaller than the t-table value of 1.989. The P-value is greater than the probability value of 0.05 ($0.111 > 0.05$), so H_{a4} is rejected, which means that communication has a positive but insignificant effect on the effectiveness of the horticultural farmer empowerment program in Telaga Jaya Subdistrict, Gorontalo Regency. A positive effect indicates that communication and coordination in the use of village funds for farmers will have a positive impact on increasing the effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency.

Effective communication and coordination in the utilization of village funds are very important to improve the effectiveness of the horticultural farmer empowerment program in Telaga Jaya Subdistrict. With transparent, coordinated, and participatory management, the designed programs can run smoothly, be on target, and have a significant positive impact

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on farmer welfare and agricultural development. However, the insignificant impact is suspected to be due to a lack of trust and strong relationships between farmers and program implementers. If farmers do not trust extension workers or program implementers, even good communication will not be effective. This trust among farmers means that village funds are often used only for certain parties, such as unfair assistance for farming communities, where farmers with large plots of land receive less assistance than farmers with smaller plots.

A more positive impact means that when village funds are managed well through transparent communication and efficient coordination between all parties involved, the result is a more focused, measurable program implementation that meets the needs of farmers. Good communication ensures that all stakeholders, including the village government, agricultural extension workers, farmers, and the wider community, understand the objectives and plans for the use of village funds. Clear information about fund allocation, the types of activities to be funded, and the expected benefits can help reduce misunderstandings and increase community support for the program. Thus, farmers will be more involved and motivated to actively participate in empowerment programs. Effective coordination between various related parties is essential to ensure that village funds are used optimally. Through good coordination, program activities can be planned and implemented in a more structured manner. For example, coordination between agricultural extension workers and farmers can ensure that funds are used for relevant training, the purchase of needed agricultural tools, or the development of agricultural infrastructure such as irrigation and crop storage warehouses. Thus, every expenditure of village funds will provide maximum results and directly benefit farmers.

6) The Influence of Human Resource Competence on the Effectiveness of the Horticulture Farmer Empowerment Program

The t-statistic value of the influence of human resource competence on the management of horticultural farmer empowerment programs was 2.667 with a probability value (P-value) of 0.008. When compared, the t-count value of 2.667 is greater than the t-table value of 1.989. The P-value is smaller than the probability value of 0.05 ($0.008 < 0.05$), so H_{a6} is accepted, which means that human resource competence has a positive and significant effect on the effectiveness of the horticultural farmer empowerment program in Telaga Jaya Subdistrict, Gorontalo Regency. The positive results show that human resource competence has a very good implication for the optimal effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency.

When agricultural extension workers, program staff, and farmers have a high level of competence, various aspects of the empowerment program can run more smoothly, be more focused, and produce maximum results. Competence in problem solving and adapting to environmental changes is also very valuable. Agriculture is a very dynamic field, where conditions and challenges can change suddenly. Competent human resources are able to respond to these challenges quickly and effectively, find innovative solutions, and take the necessary steps to maintain the sustainability of the program. Human resource competence is a key factor in improving the effectiveness of horticultural farmer empowerment programs in Telaga Jaya Subdistrict. With agricultural extension workers, program staff, and farmers who have a high level of competence, programs can run more efficiently, produce better results, and have a more significant impact on the welfare of farmers and agricultural development in Telaga Jaya Subdistrict, Gorontalo Regency.

7) The Influence of Financial Resources on the Effectiveness of the horticultural farmer empowerment program

The t-statistic value of the influence of financial resources on the management of horticultural farmer empowerment programs was 3.376 with a probability value (P-value) of 0.001. When compared, the t-count value of 3.376 is greater than the t-table value of 1.989. The P-value is smaller than the probability value of 0.05 ($0.001 < 0.05$), so H_a is accepted, which means that financial resources have a positive and significant effect on the effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency. The positive result shows that financial resources have a positive impact on improving the effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency.

Adequate financial resources enable program organizers to provide timely and targeted technical assistance. For example, farmers can receive assistance in the form of high-quality seeds, fertilizers, or pesticides. This assistance helps farmers cope with challenges such as pest and plant disease attacks, thereby increasing crop yields. Sufficient funds enable the program to conduct regular monitoring and evaluation. By monitoring and evaluating the program's progress periodically, organizers can identify weaknesses and opportunities for improvement, as well as make the necessary adjustments to increase the program's effectiveness. Therefore, sufficient financial resources are very important in increasing the effectiveness of the horticultural farmer empowerment program in Telaga Jaya Subdistrict. With prudent and transparent management, these funds can provide tangible benefits to farmers, helping them increase their productivity, income, and welfare in Telaga Jaya Subdistrict, Gorontalo Regency.

8) The Influence of Implementers' Attitudes on the Effectiveness of the Horticultural Farmer Empowerment Program

The t-statistic value of the influence of the implementer's attitude on the management of the horticultural farmer empowerment program obtained a result of 1.331 with a probability value (P-value) of 0.184. When compared, the t-count value of 1.331 is smaller than the t-table value of 1.989. The P-value is smaller than the probability value of 0.05 ($0.184 < 0.05$), so H_0 is rejected, which means that the attitude of implementers has a positive but insignificant effect on the effectiveness of the horticultural farmer empowerment program in Telaga Jaya Subdistrict, Gorontalo Regency. Positive results show that the better the attitude of the implementers, the better the impact on increasing the effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency.

A good attitude creates a positive work environment, strengthens the relationship between implementers and farmers, improves professionalism and program implementation quality, and promotes effective collaboration and teamwork. Therefore, it is important to continue to encourage and support the development of a good attitude among program implementers so that the empowerment program can have a greater impact on farmers. However, this has not been significant, presumably due to the lack of farmer involvement and participation. Although the attitude of implementers can be important, the effectiveness of the program also depends heavily on the level of farmer participation and involvement in the empowerment process. If farmers are not actively involved in the planning, implementation, and evaluation of the program, the positive impact of the implementers' attitude may be limited.

Program implementers who have a responsible attitude will ensure that funds are used transparently and accountably, activities are carried out according to the predetermined schedule, and program results are continuously monitored and evaluated to ensure the achievement of the desired objectives. A good teamwork attitude enables program implementers to work together synergistically to achieve common goals. Collaboration between various parties, including local governments, research institutions, non-governmental organizations, and local communities, becomes more effective when program implementers have an open, inclusive, and proactive attitude in building harmonious working relationships.

9) The Effect of Horticultural Farmer Empowerment Program Management on the Effectiveness of Horticultural Farmer Empowerment Programs

The t-statistic value of the influence of horticultural farmer empowerment program management on horticultural farmer empowerment program management obtained a result of 2.266 with a probability value (P-value) of 0.024. When compared, the t-count value of 2.266 is greater than the t-table value of 1.989. The P-value is smaller than the probability value of 0.05 ($0.024 < 0.05$), so H_{a9} is accepted, which means that the management of the horticultural farmer empowerment program has a positive and significant effect on the effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency. The positive result shows that good management in a program will also have a positive impact on the effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency.

Effective management involves careful planning, systematic organization, coordinated implementation, continuous monitoring, and comprehensive evaluation (). Good management in a horticultural farmer empowerment program in Telaga Jaya Subdistrict, Gorontalo Regency, has a very positive impact on the overall effectiveness of the program. With thorough planning, systematic organization, coordinated implementation, continuous monitoring, and comprehensive evaluation, the program can run efficiently, achieve its objectives, and have a significant impact on the welfare of farmers and agricultural development.

Indirect Influence

1) The Influence of Communication Through the Management of the horticultural farmer empowerment program on the effectiveness of the horticultural farmer empowerment program

The t-statistic value for the indirect effect of the Communication variable is 1.442 with a probability value (P-value) of 0.150. When compared, the t-count value of 1.442 is smaller than the t-table value of 1.989. The P-value is greater than the probability value of 0.05 ($0.150 > 0.05$), so H_{a10} is rejected, which means that communication through the horticultural farmer empowerment program management has a positive but insignificant effect on the effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency. This shows that the management of the horticultural farmer empowerment program has not been able to intervene in communication regarding the effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency.

One of the main reasons why program management has not been able to mediate communication is the lack of holistic integration between program management and communication. Although program management focuses on program planning, implementation, and evaluation, communication strategies are often not directly integrated into the management process. This can result in important information not being effectively conveyed to stakeholders, including farmers, thereby affecting the overall effectiveness of the empowerment program. To improve the effectiveness of the horticultural farmer empowerment program in Telaga Jaya Subdistrict, Gorontalo Regency, it is important to strengthen the relationship between program management and communication. This involves the integration of a holistic communication strategy into the program management process, a deep understanding of the needs and tendencies of stakeholders, addressing cultural or social barriers, and the allocation of adequate resources for communication. Thus, program management can function as an effective intervening factor in communication, thereby increasing the overall effectiveness of the farmer empowerment program. (Wahyudin et al., 2019)

2) The Influence of Human Resource Competence Through Horticultural Farmer Empowerment Program Management on the Effectiveness of Horticultural Farmer Empowerment Programs

The t-statistic value of the indirect effect of the human resource competency variable is 1.997 with a probability value (P-value) of 0.046. When compared, the t-count value of 1.997 is greater than the t-table value of 1.989. The P-value is smaller than the probability value of 0.05 ($0.046 < 0.05$), so H_{a11} is accepted, which means that human resource competence through horticultural farmer empowerment program management has a positive and significant effect on the effectiveness of horticultural farmer empowerment programs in Telaga Jaya Subdistrict, Gorontalo Regency. These results show that the management of the horticultural farmer empowerment program is capable of increasing the influence of human resource competence on the effectiveness of the horticultural farmer empowerment program in Telaga Jaya District, Gorontalo Regency.

Program management that is responsive to environmental changes or community needs can help human resources develop relevant and adaptive competencies. By identifying new trends or challenges in horticultural agriculture, program management can design training or competency development programs that are in line with actual needs in the field. This enables agricultural extension workers and program staff to remain relevant and effective in supporting farmers. The management of horticultural farmer empowerment programs has great potential to increase the influence of human resource competencies on

program effectiveness in Telaga Jaya Subdistrict, Gorontalo Regency. By designing relevant training programs, facilitating the optimal use of competencies, providing appropriate incentives, and being responsive to environmental changes, program management can create an environment that supports the sustainable development of human resource competencies, thereby contributing significantly to the success of farmer empowerment programs.

3) The Influence of Financial Resources Through Horticultural Farmer Empowerment Program Management on the Effectiveness of Horticultural Farmer Empowerment Programs

The t-statistic value of the indirect effect of the financial resources variable is 1.516 with a probability value (P-value) of 0.130. When compared, the t-count value of 1.516 is smaller than the t-table value of 1.989. The P-value is greater than the probability value of 0.05 ($0.130 > 0.05$), so H_{a12} is rejected, meaning that financial resources through the management of horticultural farmer empowerment programs have a positive but insignificant effect on the effectiveness of horticultural farmer empowerment programs in Telaga Jaya District, Gorontalo Regency. These results indicate that the management of the horticultural farmer empowerment program has not been able to serve as a good intermediary for internal financial resources in terms of the effectiveness of the horticultural farmer empowerment program.

The reason why program management has not been able to serve as an effective intermediary for financial resources is likely due to a lack of effective financial planning and management. Even if internal financial resources are available, if they are not managed properly, for example due to a lack of careful budget planning, a lack of transparency in the use of funds, or a lack of accountability in financial reporting, the expected benefits of these financial resources will not be realized. To enhance the role of program management as a good intervening factor for internal financial resources in the effectiveness of horticultural farmer empowerment programs, there needs to be improvements in financial planning and management, increased coordination between program management and the finance team, a better understanding of program needs and priorities, the implementation of effective financial performance measurement and evaluation mechanisms, and responsive adaptation to changes in the external environment. Thus, program management can be more effective in optimizing the use of internal financial resources and increasing the effectiveness of the horticultural farmer empowerment program in Telaga Jaya Subdistrict, Gorontalo Regency.

4) The Effect of Implementers' Attitudes Through Horticultural Farmer Empowerment Program Management on the Effectiveness of Horticultural Farmer Empowerment Programs

The t-statistic value of the indirect influence of the implementer's attitude variable is 1.442 with a probability value (P-value) of 0.150. When compared, the t-count value of 1.516 is smaller than the t-table value of 1.989. The P-value is greater than the probability value of 0.05 ($0.150 > 0.05$), so H_{a13} is rejected, meaning that the attitude of implementers through the management of horticultural farmer empowerment programs has a positive but insignificant effect on the effectiveness of horticultural farmer empowerment programs in Telaga Jaya District, Gorontalo Regency. These results show that the management of the horticultural farmer empowerment program has not been able to effectively mediate the attitude of internal implementers towards the effectiveness of the horticultural farmer empowerment program.

The reason why program management has not been able to become a good intermediary for implementers' attitudes is suspected to be due to a lack of communication and active involvement with internal implementers. Effective program management requires open two-way communication between management and internal implementers. Without effective communication, management cannot deeply understand the attitudes, needs, or problems faced by internal implementers, making it difficult to design appropriate interventions. To improve the role of program management as a good intervening factor for the attitudes of internal implementers towards the effectiveness of horticultural farmer empowerment programs, more focused and coordinated efforts are needed. This includes increasing understanding of the role of implementer attitudes, communication and active involvement with internal implementers, support and incentives from management, and attention to organizational culture and social norms that can influence implementer attitudes. Thus, program management can be more effective in shaping and strengthening attitudes that support the effectiveness of horticultural farmer empowerment programs in Telaga Jaya Subdistrict, Gorontalo Regency.

Based on the above descriptions, it can be concluded that communication, human resource competence, financial resources, implementer attitudes, and horticultural farmer empowerment program management have a significant effect on the effectiveness of horticultural farmer empowerment programs by 85.40%. while the factor of program management for horticultural farmer empowerment also has a significant influence of 82.20%. The indirect influence shows that program management for horticultural farmer empowerment can only serve as a good mediator for human resource competency.

These results are in line with the opinion of the Ministry of Village, Development of Transmigration that the fund distribution program in the livestock and agriculture sectors is a program that greatly helps the family economy, however, the implementation of these livestock and agriculture programs is still not optimal in terms of management, so the government must also allocate village funds to build access roads to livestock and agricultural locations. As a result, the community also gets involved or works together in building roads to these locations. Optimizing program management through communication, human resources, financial resources, and effective implementation attitudes will help create a supportive environment for the successful implementation of empowerment programs. With a holistic and coordinated approach to all these aspects, empowerment programs will be able to achieve a significant impact in improving the welfare of farmers and agricultural development.

All of these factors can interact through management mediation, which plays an important role in coordinating, directing, and facilitating the overall implementation of the program. (Pradana, 2022) states that the problems faced by farmers include limited agricultural land, fertilizer prices that are considered too expensive, and, most importantly, pest infestations on agricultural land. The solution expected by farmers is training on new planting methods and pest control by the relevant agencies. With effective management, the positive effects of these factors can be synergistically combined to achieve maximum effectiveness in the horticultural farmer empowerment program. Good management involves careful and focused planning. With careful planning, the empowerment program can be clearly defined, including the objectives, strategies, and steps needed to achieve them. This will help avoid wasting resources and ensure that empowerment efforts are focused on the real needs of horticultural farmers.

CONCLUSION

Communication, human resource competence, financial resources, implementer attitudes, and horticultural farmer empowerment program management have a significant effect on the effectiveness of horticultural farmer empowerment programs by 85.40%, while factors related to horticultural farmer empowerment program management have a significant effect of 82.20%. The indirect effect shows that the management of horticultural farmer empowerment programs can only serve as a good mediator for human resource competency.

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