

INFLUENCE OF PERCEPTION, PARTICIPATION AND IMPLEMENTATION CORPORATE SOCIAL RESPONSIBILITY PROGRAM OF PT. NUSA HALMAHERA MINERALS ON NORTH HALMAHERA FARMERS' INCOME

Yunelfi Musraino Hohary, Lasmono Tri Sunaryanto, Yuliawati

Master of Agricultural Sciences, Faculty of Agriculture and Business,
Satya Wacana Christian University
email correspondence: 532019001@student.uksw.edu

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ABSTRACT

The agricultural industry is crucial for the national economy's growth, and the government is committed to advancing development policies. However, challenges persist, necessitating collaboration between the private sector, government, and other stakeholders. This study examines the impact of the Corporate Social Responsibility program on farmers' income in North Halmahera Regency. The study was carried out specifically in the districts of Kao Teluk, Malifut, Kao, Kao Barat, and Kao Utara, between December 2022 and March 2023. The data utilized in this study were gathered through interviews and a questionnaire administered to one hundred respondents, specifically farmers who had benefited from the Community Development and Empowerment of Corporate Social Responsibility program and were deliberately selected using a purposive sampling method. The research employed the Structural Equation Model approach for data analysis and processing, utilizing Microsoft Excel and the SmartPLS application version 4. According to the study's findings, farmer participation and perceptions significantly and positively impacted the implementation of the Corporate Social Responsibility program. Similarly, smallholder participation, perceptions, and the execution of the Corporate Social Responsibility program have a substantial and favorable impact on farmers' income. Enhanced farmer participation is directly proportional to improved farmer perception, thereby facilitating the successful execution of the CSR program and guaranteeing favorable outcomes, impacts, and agricultural sustainability—thereby augmenting farmers' incomes.

Keywords: *perception, participation, implementation, farmer income*

INTRODUCTION

The agriculture sector assumes a vital and important position in contributing economic sustenance to the nation. The agricultural sector is consistently expected to make significant contributions in various areas, such as providing sustenance, supplying industrial raw materials, generating bioenergy, absorbing labour, and preserving the environment. Given this obligation, the government continues to enact various agricultural development initiatives. The Ministry of Agriculture's Strategic Plan for the period 2020–2024 establishes strategic priority objectives for agricultural development, which comprise the following: implementing and capitalizing on scientific and technological advancements; establishing infrastructure and facilities tailored to agricultural requirements; augmenting human capital and farmer institutions; and allocating a development budget that is both accountable and efficient. With this, it is hoped that agricultural commodities will become more competitive and that the quality of strategic foods for the nation will be ensured.

Amidst the high expectations for the direction of agricultural development in Indonesia, there are still many serious problems that need to be addressed and solutions found. The Ministry of Agriculture, in its analysis of the problems and potential of the agricultural sector in Indonesia based on the 2018 census, stated that until now, farming conditions are still dominated by small land ownership and small-scale operations, limited access to capital, low levels of education, knowledge and mastery of technological innovations, as well as limited market access in local markets.

North Halmahera is one of the districts in North Maluku Province with significant agricultural potential. The agricultural land area reaches 130,035 hectares and contributes an average of 23.02 percent to the Gross Regional Domestic Product from 2017 to 2021. However, in reality, the potential of the agricultural sector does not correspond to the conditions of the farmers. Farmers still face difficulties in developing farming, especially in terms of capital, training and mentoring, the use of agricultural tools and machinery, as well as marketing their produce.

Based on the 2020 Performance Report of the North Halmahera District Government, it is mentioned that there are still many obstacles and issues hindering the development of the agricultural sector. Land utilization, production quantity, and agricultural productivity are not yet optimal, with slow agricultural business growth still confined to small-scale management. The strengthening of farmer institutions is not yet maximal, there is a lack of agricultural experts and extension workers, farmers' access to financing is still limited, cultivation and post-harvest management are not yet optimal, thus affecting the quality and price of products, as well as the supply chain and market access that are not yet fully supportive of farmers. These issues then affect farmers' terms of trade and have implications on their income and welfare. To address these issues, synergy and collaboration among all stakeholders, including the private sector in North Halmahera District, are needed. One collaborative strategy with the private sector is through the implementation of Corporate Social Responsibility (CSR) programs.

In Law number 40 of 2007 concerning Limited Liability Companies, it is clearly stated that companies engaging in natural resource exploration activities are required to fulfill social and environmental responsibilities. This social and environmental responsibility is the company's commitment to fulfilling its role in sustainable economic development with the aim of improving the quality of life and the environment, providing benefits for the company itself, local communities, and society in general.

PT. Nusa Halmahera Minerals (NHM) is an organization engaged in quarrying and mining activities. Through the Social Performance Division, NHM implements CSR programs in the form of community development and empowerment, with an emphasis on assisting and strengthening local producers. The implemented program aims to enhance horticultural crop planting area and productivity. This is achieved through the transmission of knowledge and skills pertaining to technological innovation, assistance with production inputs, support from experts, and the strengthening of farmer institutions.

Based on the background above, the objectives of this research are as follows: (1) To analyze the influence of farmers' perceptions and participation on the Implementation of CSR Programs; (2) To analyze the influence of the Implementation of CSR Programs on farmers' income; and (3) To analyze the influence of farmers' perceptions, participation, and the implementation of CSR programs on farmers' income.

RESEARCH METHOD

The research was conducted in five districts surrounding the mining area, including: Kao Teluk, Malifut, Kao, Kao Barat, and Kao Utara. The selection of research locations is limited to the districts that directly benefit from the CSR program of PT. NHM. The population in this study is farmers who receive benefits from the CSR program, totaling 375 individuals from 75 farmer groups. Meanwhile, the sampling technique used purposive sampling. The number of samples used is 100, specifically targeted at farmer groups engaged in horticultural farming.

Primary data utilized in this study were collected through direct interviews with producers or through the administration of questionnaires; secondary data was sourced from pertinent literature. The accumulation of research data will occur between December 2022 and February 2023. This study employs two endogenous latent variables, namely Farmer Perception Variable (X1) and Farmer Participation (X2), as well as two exogenous latent variables, namely CSR Program Implementation Variable (X3) and Farmer Income (Y).

This research employs structural equation modeling (SEM) analysis through the utilization of the Partial Least Squares Path Modeling (PLS-SEM) analysis software. Wright in Hamid & Anwar (2019), states that by integrating path analysis and factor analysis, SEM is used as an analytical technique for testing and estimating causal relationships. PLS analysis is a statistical technique that compares multiple independent and dependent variables across multiple variables. The two phases of model evaluation

that comprise PLS-SEM analysis are the measurement model (outer model) and the structural model (inner model).

Construct validity testing is an alternative name for the measurement model, which comprises convergent validity, discriminant validity, and reliability assessments. In order to evaluate convergent validity, discriminant validity, and reliability, the following criteria and maxims are applied:

1. **Convergent Validity:** the loading factor value for each indicator must be less than or equal to 0.70, and the average variance inflation factor (AVE) must be less than or equal to 0.5.
2. **Discriminant Validity:** by looking at least 0.7 must be the cross-loading value for each indicator, 0.5 must be the communality value, and the average variance extracted (AVE) root value for each variable must be higher than the correlation coefficient between that variable and the other variables in the model. This is called discriminant validity.
3. A reliability test can be conducted by calculating the values of Cronbach's alpha and composite reliability. The evaluation of construct reliability is conducted using a composite reliability value of approximately 0.7 as a rule of thumb.

Two aspects are considered during structural model testing: the predictive ability of the model and the relationship between latent variables in the model under construction. In order to conduct testing, bootstrapping calculations were utilized.

Before testing this structural model, a preliminary collinearity test was carried out to make sure that the connection between the external latent

variables and the corresponding endogenous latent variables in the built model wasn't too strong. The Variance Inflation Factor (VIF), which ranges from 2.0 to 5.0, is what determines the tolerance value for collinearity between exogenous variables (Mardiana & Faqih, 2019).

The subsequent assessment of the structural model involves examining the estimated value of the path coefficient, which indicates the strength of the relationship among the latent variables in the model. On the basis of the t-statistic and p-value, the significance of the path coefficient value is determined. The significance of the relationship is determined by the t-value; if the t-value is 1.96, the relationship is considered significant; otherwise, it is deemed non-significant. It is less than 0.05 for the p-value (Hair et al., 2021). Subsequently, the coefficient of determination (R-square) is assessed in order to quantify the model's predictive capability. R-Square values of 0.75, 0.50, and 0.25 are employed to classify models as strong, moderate, medium, or feeble, respectively.

In order to ascertain the structural model's adherence to the specified criteria and robustness in relation to validity, it is imperative to examine the predictive relevance value (Q²). A good relationship prediction value (goodness of fit or GoF) is attained when the Q² value of the endogenous variable exceeds that of the exogenous variable. The relationship categories consist of the following GoF values: feeble (0.02), moderate (0.15), and strong (0.35).

The configuration of the structural model postulated in this investigation is illustrated in the subsequent Figure 1.

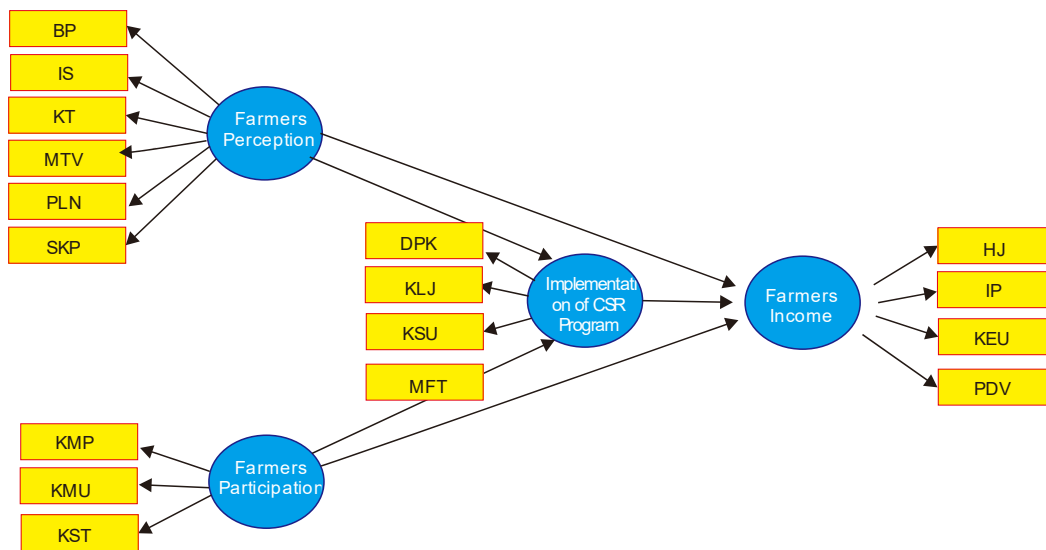


Figure 1 Research Structural Hypothesis Model

RESULT AND DISCUSSION

Respondent Characteristic

The attributes delineated in this study pertain to the participants: age, gender, level of education, agricultural expertise, land area, ownership status, and the quantity of dependents within the household. The specifics are listed in Table 1.

The data presented in Table 1 indicates that the majority of the respondents (52 individuals, or 52%) were farmers aged 31–49 years. This age range is highly productive as a labor force and is crucial for agricultural management. In terms of gender, the majority of respondents, 92 (or 92%), were males. The preponderance of male cultivators can be attributed to societal conventions that dictate the primary provider for the family's financial needs.

The educational attainment of the respondents is primarily elementary school graduates (71 individuals, or 71 percent), which is still regarded as a low level. The limited accessibility

to higher education resulting from the poor economic condition of society ultimately contributes to the deplorable state of human resources.

In terms of agricultural experience, 53 of the respondents (or 53 percent) have between eleven and twenty-three years of experience, whereas the remaining respondents have, on average, over five years of experience. The respondents' agricultural experience is directly proportional to their primary occupation as farmers. The aforementioned experience significantly influences the adaptability of farmers towards a wide range of obstacles, challenges, and risks, their capacity to assimilate information and technological advancements, and their resistance to change and progress.

As shown in Table 1, the respondents own 92 percent of the land area that is between 2 and 5 ha in size. In agriculture, land is a primary input in production and a form of capital. The land proprietorship area serves as a measure of the magnitude of agricultural activities

conducted within a given region. As previously stated, the land area of the respondent remains comparatively modest. According to the findings derived from interviews and observations conducted with respondents, the limited availability of land specifically designated for

horticultural commodities is due to the fact that plantation crop commodities have been the primary focus of cultivators thus far.

Through CSR initiatives, new horticultural crop commodities are being pursued with great

Table 1 Respondent Characteristics

No	Characteristics	Category	Number of Respondent (Person)	Percentage (%)		
1	Age	< 15 Years	0	0		
		16-30 Years Old	0	0		
		31-49 Years Old	52	52		
		50-65 Years Old	47	47		
		>65 Years Old	1	1		
Total			100	100		
2	Gender	Female	8	8		
		Male	92	92		
	Total			100	100	
3	Education Levels	No School	0	0		
		Elementary School	71	71		
		Junior High School	22	22		
		Senior High School	4	4		
		Diploma	1	1		
		Bachelor	2	2		
		Total			100	100
		4	Experience Farming	1-5 Years	3	3
6-10 Years	16			16		
11-20 Years	53			53		
> 20 Years	28			28		
Total				100	100	
5	Land Area	< 2 ha	9	9		
		2-5 ha	91	91		
		> 5 ha	0	0		
		Total			100	100
6	Ownership Status Land	Private Property	99	99		
		Profit Sharing	0	0		
		Rent	1	1		
		Total			100	100
7	Number of Family Dependents	< 5 Peoples	72	72		
		5-8 Peoples	28	28		
		> 8 Peoples	0	0		
		Total			100	100

Sources: Primary data processed, 2023

diligence. 99 individuals (99%) of the respondents hold private land ownership. Only one individual (1%) engages in agricultural activities on rented land, which is located in Kuntum Mekar Village, Kao Teluk District. This indicates that the majority of respondents are landowners, allowing producers to effectively manage their agricultural land without the financial strain of profit sharing or land rental expenses.

Assessment of the Model for Research Results

Assessment of the Measurement Model/Outer Model

The data presented in Table 2 is the result of the PLS algorithm calculation, subsequent to the reduction stage for indicators and sub-indicators. This is due to the fact that the loading factor value fails to satisfy the criterion of

Table 2 Output Loading Factor and AVE Values Based on PLS-Algorithm Calculations

Variabel	Indicator	Sub Indicator	Loading Factor	AVE	Conclusion
Farmer Perception (X1)	Attitude	SKP1	0,816	0,703	Valid
		SKP2	0,896		
		SKP3	0,906		
	Motivation	MTV3	0,751		
		PLN1	0,887		
	Farming Experience	PLN2	0,900		
		PLN3	0,900		
		Program Form	BP2		
	BP3		0,779		
Social Interaction	IS3	0,802			
Farmer Participation (X2)	Ability	KMP2	0,793	0,723	Valid
		KMP3	0,884		
		KMP4	0,868		
	Willingness	KMU2	0,783		
		KST1	0,850		
	Opportunity	KST2	0,903		
KST3		0,864			
CSR Program Implementation (X3)	Suitability	KSU2	0,801	0,794	Valid
		KSU4	0,777		
	Benefit	MFT1	0,972		
		MFT2	0,972		
	Continuity	KLJ2	0,901		
		KLJ3	0,711		
	The Resulting Impact	DPK1	0,929		
		DPK2	0,880		
DPK3		0,961			
DPK4		0,964			
Farmer Income (Y)	Production Input	IP5	0,943	0,873	Valid
		PDV1	0,921		
	Productivity	PDV2	0,954		
		PDV3	0,960		
	Profit	KEU2	0,902		
		KEU3	0,924		

Sources: Primary data processed, 2023

approximately 0.7 as specified on the research instrument. The recalculation of data that satisfies the specified criteria reveals that the farmer's perception variable (X1) comprises five indicators and ten sub-indicators, namely Attitude (SKP1, SKP2, SKP3), Motivation (MTV3), Farming Experience (PLN1, PLN2, PLN3), Program Form (BP2, BP3), and Social Interaction (IS3).

The farmer participation variable (X2) comprises three indicators and seven sub-indicators, namely Ability (KMP2, KMP3, KMP4), Willingness (KMU2), and Opportunity (KST1, KST2, KST3). The CSR program implementation variable (X3) is composed of four indicators and ten sub-indicators, namely Suitability (KSU2, KSU4), Benefit (MFT1, MFT2), Continuity (KLJ2, KLJ3), and The Resulting Impact (DKP1, DKP2, DKP3, DKP4). In contrast, the farmer income variable (Y) is constructed from three indicators and six sub-indicators, namely Production Input (IP5), Productivity (PDV1, PDV2, PDV3), and Profit (KEU2, KEU3). All of the variables resulting from a recalculation contain indicators that are greater than the heuristic value; therefore, these variables can be accepted and are classified as valid. Based on the data in Table 2 above, it is also evident that the AVE value for each variable is greater than the critical point value of 0.50, so it is reasonable to conclude that the data used in this study is valid. The loading factor and AVE values demonstrate a robust correlation in the convergent validity of the research instruments employed.

Following the examination of the convergent validity test outcomes, discriminant validity

testing was subsequently conducted, utilizing the cross-loading value as the basis. According to the data presented in Table 3, the cross-loading values for each variable-forming indicator have exceeded the minimum threshold of 0.7. Additionally, this value indicates that the variable exhibits a stronger correlation with the indicator in question than with the remaining indicators. Thus, the indicators comprising these variables can be classified and utilized in the measurement model as valid.

The assessment phase of variable reliability via SEM-PLS analysis consists of examining the composite reliability value. In addition to the composite reliability value, the Cronbach's alpha value is also considered. It is deemed that the research variables are reliable when both the composite reliability value and Cronbach's alpha value are less than or equal to 0.7. According to the results of the reliability test presented in Table 4, both the composite reliability value and Cronbach's alpha value for each variable exceed the conventional threshold of 0.7. The Cronbach's alpha and composite reliability values for the farmer income variable (Y) are the highest at 0.971 and 0.976, respectively. It is possible to conclude that all variables utilized in this study are reliable based on the results of this analysis. The evaluation of this research data can be further advanced to the subsequent phase, which involves evaluating the structural model, also known as the inner model.

Assessment of the Structural Model/ Inner Model

To judge the structural model or inner model, we look at the correlation or impact between latent variables. The path coefficient tells us

what the value of these variables is. The test results are shown as R-Square, significance test, and collinearity test values. These are all based on the output of the PLS-Boostrapping calculation. The results in Table 5 show that the collinearity test shows that all possible mixes of exogenous latent variables that are linked to endogenous latent variables have values greater

than 0.2 and less than 5.0. On the basis of the test results, it is possible to conclude that the structural model contains no collinearity between variables.

Table 5 shows the t-statistical value between the variables. The significance value test shows that the CSR program implementation variable (X3) has the highest value (15,141) when

Table 3 Output Cross Loading

Indicator	Sub Indikator	Farmer Perception (X1)	Farmer Participation (X2)	CSR Program Implementation (X3)	Farmer Income (Y)
Attitude	SKP1	0,816	0,756	0,704	0,684
	SKP2	0,896	0,713	0,809	0,817
	SKP3	0,906	0,746	0,889	0,894
Motivation	MTV3	0,751	0,812	0,542	0,639
Farming Experience	PLN1	0,887	0,617	0,614	0,638
	PLN2	0,900	0,636	0,627	0,649
	PLN3	0,900	0,636	0,627	0,649
Program Form	BP2	0,722	0,740	0,505	0,580
	BP3	0,779	0,468	0,630	0,648
Social Interaction	IS3	0,802	0,604	0,631	0,617
	KMP2	0,591	0,793	0,529	0,461
Ability	KMP3	0,665	0,884	0,626	0,579
	KMP4	0,604	0,868	0,523	0,544
Willingness	KMU2	0,805	0,783	0,789	0,786
	KST1	0,660	0,850	0,529	0,570
Opportunity	KST2	0,694	0,903	0,589	0,642
	KST3	0,675	0,864	0,551	0,592
Suitability	KSU2	0,623	0,371	0,801	0,699
	KSU4	0,563	0,570	0,777	0,693
Benefit	MFT1	0,805	0,708	0,972	0,916
	MFT2	0,810	0,708	0,972	0,916
Continuity	KLJ2	0,739	0,616	0,901	0,882
	KLJ3	0,512	0,560	0,711	0,644
	DPK1	0,756	0,699	0,929	0,931
The Resulting Impact	DPK2	0,677	0,632	0,880	0,768
	DPK3	0,786	0,708	0,961	0,911
	DPK4	0,788	0,714	0,964	0,912
	IP5	0,778	0,711	0,939	0,943
Production Input	PDV1	0,769	0,663	0,863	0,921
	PDV2	0,801	0,669	0,914	0,954
	PDV3	0,811	0,700	0,910	0,960
Profit	KEU2	0,711	0,633	0,779	0,902
	KEU3	0,751	0,651	0,829	0,924

Sources: Primary data processed, 2023

compared to the farmer income variable (Y). One variable relationship was identified using the t-statistic value: farmer income and farmer participation (X2); however, the value of this relationship is less than 1.96, leading to the conclusion that it is not statistically significant. In contrast, the t-statistic value for the relationship between other variables is greater than 1.96 or less than 1.96, indicating that the relationship is statistically significant. According to the R-Square value output results presented in Table 6, a value of 0.654 was obtained for the CSR program implementation variable (X3). This indicates that farmer participation (X2) and perception (X1) can account for 65.4 percent of the variance in the CSR program implementation variable (X3). The R-square

value for the variable farmer income (Y) is therefore 0.893.

This value indicates that the farmer perception variables (X1), farmer participation variables (X2), and CSR program implementation variables (X3) account for 89.3 percent of the variance in the farmer income variable (Y). Hence, in comparison to the spectrum of R-Square value criteria, the variable representing CSR program implementation (X3) falls within the moderate category, whereas the variable representing farmer income (Y) is classified as strong.

According to the results shown in Table 7, the endogenous variable CSR program implementation's Q² value is lower than the endogenous variable farmer income (Y)

Table 4 Output Reliability

Variabel	Rule of Tumb	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)
Farmer Perception (X1)	>0,7	0,952	0,962	0,959
Farmer Participation (X2)	>0,7	0,936	0,945	0,948
CSR Program Implementation (X3)	>0,7	0,970	0,978	0,975
Farmer Income (Y)	>0,7	0,971	0,973	0,976

Sources: Primary data processed, 2023

Table 5 Output of Collinearity Value and Significance Test

Variable	VIF	T-Statistic	P-Value
Farmer Perception → CSR Program Implementation	0,643	7,485	0,000
Farmer Perception → Farmer Income	0,205	3,762	0,000
Farmer Participation → CSR Program Implementation	0,196	2,393	0,017
Farmer Participation → Farmer Income	0,010	0,220	0,826
CSR Program Implementation → Farmer Income	0,766	15,141	0,000

Sources: Primary data processed, 2023

Table 6 Output R-Square Value

Variable	R-Square Value	Category
Program Implementation (X3)	0,654	Moderate
Farmer Income (Y)	0,893	Strong

Sources: Primary data processed, 2023

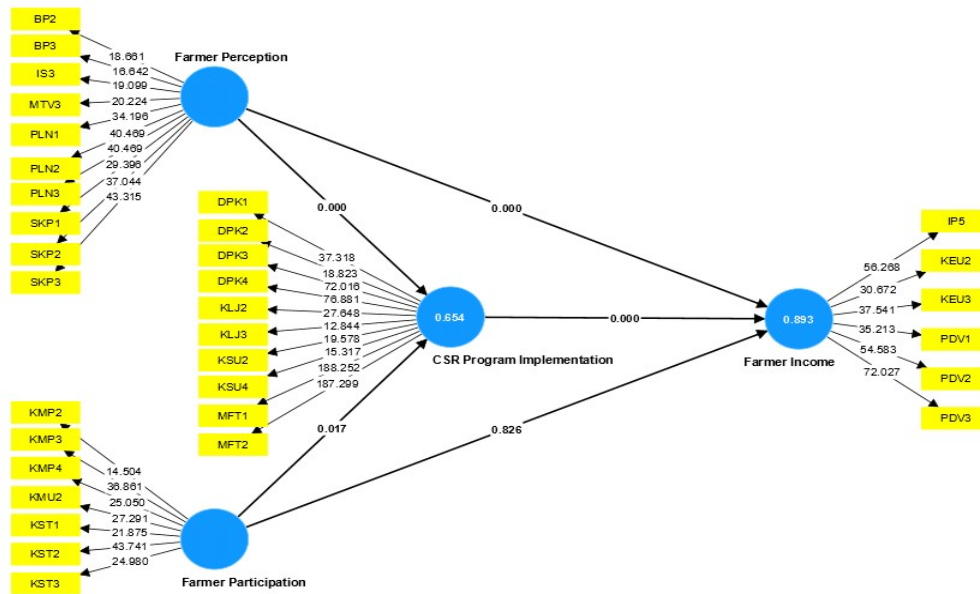


Figure 2 Research Structural Hypothesis Model

(0.771-0.508) according to calculations done while blindfolded. The conclusion that can be drawn from the Q^2 value is that the structural model utilized in this study possesses satisfactory validity and satisfies the criteria for goodness of fit. Furthermore, this value indicates that the predictive relevance of the model-fit variable for farmer income and CSR program implementation is strong, as the Q^2 values for both variables exceed 0.35.

Hypothesis Examination

The Impact of Farmer Perception and Participation on the Implementation of CSR Programs

According to the results shown in Table 5, the variables that show farmer participation (X2)

and perception (X1) have a statistically significant and positive effect on the variable that shows how CSR programs are put into action (X3). The t-statistic value (7.465) is greater than the t-table value (1.96) related to the impact of the farmer perception variable (X1) on the implementation of the CSR program (X3), while the p-value (0.000) is less than 0.05. The t-statistic value for the influence of the farmer participation variable (X2) on the CSR program implementation variable (X3) is (2.393), which is greater than the t-table value of 1.96, and the p-value is (0.017), which is less than 0.05.

The aforementioned analysis reveals a linear correlation with the respondent characteristics,

Table 7 Output Predictive Relevance (Q^2) Value

Variabel	SSO	SSE	Q^2 (=1-SSO/SSE)
Farmer Perception (X1)	1000.000	1000.000	0
Farmer Participation (X2)	700.000	700.000	0
CSR Program Implementation (X3)	1000.000	492.239	0,508
Farmer Income (Y)	600.000	137.351	0,771

Sources: Primary data processed, 2023

which are detailed in Table 1. The respondents' agricultural experience and primary occupation as farmers provide insight into how CSR managers may wish to influence farmers' perceptions of the programs they implement. The expectations of farmers with regard to the emphasis on cultivating horticultural products influence their motivations and attitudes toward the success of their agricultural enterprise. There is substantial assurance, according to the interview results, that the community development and empowerment program will increase farmers' knowledge of agricultural management, consequently empowering and facilitating their success. Similarly, it is believed that the forms of program implementation that are implemented are extremely beneficial to producers in terms of financing and managing agricultural enterprises.

The provision of assistance, including but not limited to seeds, medicines, production facilities, and infrastructure, enables producers to allocate greater attention towards the provision, utilization, and expansion of arable land.

Perception is defined within the agricultural sector as a stimulus process that producers experience as they strive to advance their farming enterprises. The stimulation process may manifest as accessibility, programs, or innovation, all of which subsequently assist producers in their decision-making and behavior. The attitudes of farmers can subsequently be influenced by the interpretation of information and innovation that results from their experience and agricultural management requirements (Meijer S et al., 2015). Diverse factors influence the circulation of the process in accordance with the farmer's capacity and

aptitude to analyze and interpret the forms of stimulation they encounter.

The extent to which farmers engage in the execution of the aforementioned CSR initiative is correlated with their perception of the corporation's empowerment program, which is manifested through CSR support. Under such circumstances, program implementation will operate with greater efficiency (Azhar, 2017).

Individual characteristics, abilities, willingness, and opportunities influence community participation in development programs, including those conducted by corporations in the form of corporate social responsibility (CSR), according to the findings of this study (Nurbaiti & Bambang, 2017). An individual with particular qualities, such as land ownership and experience, will be more likely to recognize business development opportunities. The belief that the program in question will produce positive results drives efforts to participate. Capacity to foster self-awareness and confidence in one's own capabilities with regard to resources, time, effort, facilities, and additional materials contributed in exchange for program implementation Opportunity, meanwhile, is consistently a motivating element in maximizing the capacity and inclination of program beneficiaries to participate actively, and it tends to correlate with their level of engagement.

The effectiveness of the CSR program is significantly impacted by the degree of community participation throughout the program implementation phases, from planning to evaluation, according to the findings of Arief (2020).

Consequently, community participation will enhance the efficacy of a program by placing emphasis on the principles of empowerment during the implementation phase. Similarly, Widiana (2022) posits that individuals' engagement is positively impacted by their capabilities, which stem from their knowledge, eagerness to gain from the program, and opportunities to develop communication connections with external parties. Community participation will have a direct correlation with the effectiveness of the CSR program implementation process. Enhancing community engagement can bolster the efficacy of corporate social responsibility (CSR) initiatives in attaining their objectives - namely, fostering a positive influence on the beneficiary communities and the community economy at large-and enhancing the quality of empowerment.

According to the findings of Hazar (2020) research, public participation and perception of CSR programs are contingent on public confidence in their objectives and advantages. This results in active participation and a favorable response to program implementation, beginning with participation in planning, continuing through participation in utilizing program results, and concluding with program evaluation.

The Impact of the Implementation of CSR Programs on the Income of Farmers

According to the results of hypothesis testing, the relationship between CSR program implementation variables and farmer income is both positive and significant. On the basis of significance testing utilizing the path coefficient value, this conclusion was reached: the t-statistic value was 15.141 (which was greater than the

critical value from the t-table, which was 1.96) and the p-value was 0.000 (which was less than 0.05). The variables pertaining to the implementation of CSR programs were assessed utilizing four forming indicators: suitability, benefits, resulting impacts, and sustainability. This indicator has been demonstrated to have an effect on the income of producers. This indicates that the implemented CSR program effectively incentivizes farmers to supply production inputs, boost productivity, and generate profits for agricultural enterprises.

According to interviews with beneficiary farmers, various forms of CSR program assistance were of great assistance to farmers. Seeds, pharmaceuticals, fertilizer, tools, and other production facilities provide substantial support to farmers in the form of business capital, which has historically posed the greatest barrier to business development. Additionally, until now, horticultural crop commodities have been cultivated solely to satisfy domestic consumption requirements and on narrow land (mean 0.25–0.50 ha). However, farmers can increase the planting area by 1 ha to 3 ha through the implementation of this CSR program. As a result, both crop yields and land area indicate that agricultural productivity is rising, which in turn affects the production of profits. The agricultural produce can fulfill the financial requirements of the family and guarantee the long-term viability of the enterprise.

CSR implementation contributes to an improvement in community welfare. Ensuring a state of harmonious equilibrium between the organization and the neighboring community engenders substantial community engagement

and gratitude towards the execution of each respective corporate social responsibility initiative. Program formulation that is grounded in practical circumstances ensures that its execution precisely addresses the requirements of the community (Mapisangka, 2009).

The utilization of the farmer empowerment approach to implement the CSR program has demonstrated a favorable effect on the income of farmers. It is imperative that the empowerment process be strategically focused on enhancing agricultural productivity and management capabilities (Azhar, 2017). Arifin et al., (2020) Stated Implementation of the CSR program, which consists of mentoring and counseling, training, and institutional development in conjunction with a well-paced empowerment process, will increase income and promote farmer welfare.

Utama, (2018) asserts that CSR initiatives have the potential to foster stronger connections between businesses and local communities. This is due to the fact that CSR programs impact the economic, social, educational, and environmental welfare of the community. The provision of accessible transportation and employment prospects has fostered greater confidence in businesses, consequently motivating substantial engagement in the execution of corporate social responsibility initiatives.

When attempting to expand their agricultural enterprises, producers primarily face the obstacle of the limited availability of production inputs. Therefore, through the provision of business capital, fertilizer, and other production facilities and infrastructure, producers will be able to augment their income and reduce the

need for business capital to attain more optimal outcomes (Naufal et al., 2019). Collaborative and inventive CSR endeavors that involve other stakeholders will yield comprehensive change and exert a positive and measurable impact on economic, social, and welfare progress (Santosa et al., 2021).

The Impact of CSR Program Implementation, Farmer Participation, and Farmer Perceptions on Farmer Income

The results of data processing for hypothesis testing indicate that farmer income is significantly and positively impacted by CSR program implementation, farmer participation, and farmer perceptions. T-statistic values of 3.762 and 15.141, respectively (both greater than the critical value from the t-table of 1.96) and p-values of 0.000 and 0.000 (both less than 0.05), indicate the impact of CSR program implementation and farmers' perceptions on farmers' income. It's clear that the variable does not have a statistically significant positive effect on farmer income since the t-statistic value of 0.220 (higher than the critical p-value of 0.05) and the t-table value of 1.96 for the farmer participation variable show this.

The t-statistics and p-values presented in Table 8 show that each value exhibits a positive and statistically significant impact when comparing the path coefficient values for the total indirect effect and the total effect. Table 8 presents the findings that indicate the variables of farmer perception and CSR program implementation have a significant and positive direct and indirect impact on farmer income. However, farmer participation does not exhibit a direct influence on farmer income; however, it does establish a

Table 8 Output Direct Effect, Indirect Effect and Total Effect of Path Coefficient

Variable	Direct Effect		Indirect Effect		Total Effect	
	t-Statistik	p-Value	t-Statistik	p-Value	t-Statistik	p-Value
Farmer Perception→Farmer Income	3,762	0,000	6,429	0,000	9,606	0,000
Farmer Participation→Farmer Income	0,220	0,826	2,416	0,016	2,090	0,037
CSR Program Implementation→Farmer Income	15,141	0,000			15,141	0,000

Sources: Primary data processed, 2023

positive and significant indirect relationship through mediation facilitated by the variables of CSR program implementation. Consequently, farmer income will be impacted by the farmer participation variable as a result of the CSR program.

The farmers' perspectives on the execution of CSR initiatives via community development and empowerment programs inspire and incentivize them to expand their agricultural enterprises. In addition to increasing farmer participation, the implementation of the CSR program encourages farmers to maximize the opportunities and capabilities at their disposal in the belief that the program will positively influence and contribute to the growth and improvement of agricultural productivity. The CSR program will increase the income of producers and guarantee the sustainability of their businesses. According to the findings of interviews conducted with farmers, their income increased between the time they were not receiving assistance from CSR Program PT. NHM.

Compared to farmers who are not members of aid beneficiaries, farmers who form a group and get programs will have an impact on raising average income each production period. This is due to the fact that the support farmers receive in the form of capital and other production variables is truly beneficial (Nzamurambaho et al., 2022).

Robiyan et al., (2014) posit that farmers hold a program in high regard when it effectively contributes to the augmentation of agricultural productivity. The idea that increasing agricultural output will increase peasant income is what drives this degree of perception. In line with this, (Nirmaya et al., 2014) discovered significant disparities in the per capita income of individuals who benefited from corporate social responsibility initiatives. This is due to the public's opinion regarding the classified nature of CSR programs and their active participation in their implementation.

The community will experience the CSR program's effects to the greatest extent possible if it is executed in accordance with community requirements. Innovation programs that include education and assistance will encourage participation and cultivate positive perceptions in the context of community economic empowerment, having a significant impact on community welfare (Maengko et al., 2023). The maximization of community perception and participation in the implementation of CSR programs can be achieved through the program's adherence to joint planning and collaborative implementation with all relevant stakeholders. The adoption of the CSR initiative is anticipated to enhance community acceptance and contribute to the overall well-being of the community by fostering empowerment and enhancing economic conditions (Theresia et al., 2023).

CONCLUSION

Drawing from the aforementioned analysis of the research findings, the following can be deduced:

1. The CSR program implementation variable (X3) is significantly and positively influenced by the variables farmer perception (X1) and farmer participation (X2). The significance test results indicate that farmer perception has a t-statistic value of 7.485 $\tilde{\text{A}}$ t-table (1.96); p-value $0.000 < 0.05$ and farmer participation has a t-statistic value of 2.393 $\tilde{\text{A}}$ t-table (1.96); p-value $0.017 < 0.05$. This means that the two variables have a partial or simultaneous effect, where the better the farmer's perception, the greater farmer participation, so that the implementation of the CSR program will be successful and have a positive impact on farming management and results.
2. The variable of CSR) programs Implementation, which comprise sustainability, suitability, benefits, and resulting impacts, have a significant and positive impact on the income of farmers (Y). The obtained significance value is 15.141 (t-statistic $\%_0$ t-table 1.96), with a p-value of $0.000 < 0.05$. The findings from the computation of this significance value indicate that PPM CSR program was effectively implemented yields advantages and exerts a favorable influence on the income of producers.
3. Partially and simultaneously, the variables farmer perception (X1) and farmer participation (X2) have a positive and significant effect on the implementation of the CSR program (X3). Similarly, the three

variables X1, X2, and X3 influence farmer income (Y) in a positive and statistically significant manner, operating both concurrently and partially. The positive perception of farmers regarding the CSR program makes farmers actively participate in the implementation process so that the program objectives can be realized, namely increasing productivity and profits from production results, and the final result is increasing farmer income.

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