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Effectiveness of the Independent Farmer Card Program and its Impact on Farmer Welfare

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Abstract. Every policy program that is made needs to be evaluated in order to know its successes and shortcomings, one of which can be done by measuring its effectiveness. This study was conducted to analyze the effectiveness of the independent farmer card and its effect on improving farmers' welfare. It is a study that uses a quantitative approach. The sample was selected using random sampling using the Slovin formula so that 100 respondents were obtained. Data analysis was conducted using Structural Equation Modeling-Partial Least Square (SEM-PLS). The results showed that the effect of the CIPP Model on the effectiveness of the Independent Farmer Card Program (KPM) in Bojonegoro Regency showed positive results. Factors such as monitoring, objectives, socialization, and targeting accuracy of the program contribute to its effectiveness. In addition, improvements in each component of the CIPP Model (Context, Input, Process, Product) were shown to increase the program's effectiveness, which also significantly impacted the welfare of farmers in the area.

Keywords: effectiveness; farmer welfare; independent farmer card; SEM-PLS

INTRODUCTION

As one of the East Java regencies drained by the Bengawan Solo river, Bojonegoro regency has declared itself as a national food barn due to its large agricultural output. Bojonegoro is the third largest rice producer in East Java after Lamongan and Ngawi. Rice production in Bojonegoro in 2021 was 824,722 tonnes. The production increased by 0.69% compared to the previous year or 2020 whose production was 819,097 tonnes (BPS, 2023). The agriculture, forestry, fisheries and livestock sector is the second highest contributing sector in Bojonegoro Regency after the mining sector. This condition is reinforced by the number of people in Bojonegoro Regency, the majority of whom work in the agricultural sector. Providing the Mandiri Farmer Card (KPM) stimulus to farmer groups is one of the efforts to reduce regional poverty. This is by Henny and Bondan's research that programs established to empower farmers in terms of market creation, development or training of farmer groups and others will indirectly reduce poverty levels in rural areas (Satriawan & Oktavianti, 2012). (Prawoto & Selatan, 2009) also suggests that poverty reduction programs should not only prioritize economic aspects but also pay attention to other aspects in an effort to improve the ability and encourage agricultural productivity. The strategies that have been chosen are efforts to increase the ability of the poor to boost income, to involve the poor in the poverty reduction process, and strategies to empower the poor. The contribution of the agriculture, plantation and forestry sector in Bojonegoro Regency to GRDP in 2023 at basic prices reached 11.83 trillion rupiah or 12.13 per cent. This category experienced a growth of 3.67 per cent in 2023. However, the agricultural sector's contribution to the GRDP of Bojonegoro Regency from 2019-2023 shows a fluctuating figure or tends to slow down. This indicates that there are problems or challenges in the agricultural sector. Despite experiencing a slowdown over the past 4 years. In 2021, the agricultural sector's contribution to GRDP contracted and increased from 2022 to 2023 (BPS, 2024).

The Bojonegoro District Government, in an effort to improve the welfare of farmers, formulated one of the agricultural sector policy programs by issuing the Independent Farmer Card (KPM). This program contains capital assistance, access to training and farm business development, guaranteed purchase of agricultural products and insurance if farmer groups experience crop failure. This program aims to encourage the development

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of the agricultural sector in Bojonegoro Regency. Moreover, the majority of the population of Bojonegoro Regency works in the agricultural sector, as much as 39% of the population of Bojonegoro Regency works in the agricultural sector or the equivalent of 1,200 farmer groups (GAPOKTAN). Meanwhile, the Farmer Exchange Rate has decreased from 2019 (106.40) to (105.26) in 2020 or the equivalent of 1.14. The KPM program is expected to help small communities meet their needs and maintain food welfare in the long term (Putri et al., 2021).

Every policy program needs to be evaluated in order to know its successes and shortcomings. Evaluation is an information-gathering activity. Evaluation can be used to determine the right alternative when making a decision (Arikunto & Jabar, 2019). Dale (Sardjo & L. D., 2016) states that evaluation is a comprehensive study carried out at a certain time on a program or the results achieved by an organization. Evaluation is an inherent and sustainable part of the government program process (Pratiwi et al., 2016). All activities carried out require assessment or evaluation (Sawerah, 2012). Program evaluation is a way to determine the level of effectiveness of the program from its components in supporting the achievement of program objectives (Arikunto & Jabar, 2019). Meanwhile, according to Nonci (2017), program evaluation is a movement carried out to determine the extent of program effectiveness. So, program evaluation is an information-gathering activity that is used to see the extent of the effectiveness of a program and as a reference material in decision-making (Maulidah et al., 2020). Evaluation is carried out with the intention of determining the suitability of the effectiveness of activities between planning and implementation and the success of the program (Pantouw et al., 2017). The benefit of evaluation is to provide information as input for decision makers (Yuriani et al., 2015). In addition, conducting an evaluation can help decision makers to determine the follow-up of a program that has been implemented. In other words, evaluation plays a very important role because the results of the evaluation determine the extent to which the program objectives have been achieved and can help in making decisions about the program (Tayibnapis, 2000).

One of the indicators of program evaluation is effectiveness. Measuring the effectiveness of an activity program is not a very simple thing, because effectiveness can be studied from various perspectives and depends on who assesses and interprets it. When viewed from the angle of productivity, a production manager provides an understanding that effectiveness means the quality and quantity (output) of goods and services (Hariyanti et al., 2022). The level of effectiveness can also be measured by comparing the plan that has been determined with the actual results that have been realized. However, if the effort or the results of the work and actions taken are not appropriate, causing the goals not to be achieved or the expected targets, then it is said to be ineffective (Maulidah & Wahib Muhaimin, 2021). Measurement of the extent of effectiveness in a program in general is seen in terms of program success, target success, satisfaction with the program, input and output levels, and overall goal achievement (Campbell, 1989).

There are many models for assessing programs, such as; the Provus Model (Difference Model), the Stake model (Countenance Model), the Formative-Summative Evaluation Model, a CSE-UCLA Model, the Tree Evaluation Model, the Logic Model and the CIPP Model. In essence, no evaluation model is completely correct, and each form has strengths and weaknesses. It is clear then that no single solution can fit every situation (McCoy & Hargie, 2001). In fact, Chelimsky, (1995) describes a trend in evaluation, where the focus is less on the attributes of a particular method and more on using complementary methods to support each other. From the considerations of using program evaluation methods mentioned

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above, this study uses the CIPP evaluation model because the four components of context (objectives), input (plans), process (actions), and product (results) become one unit that reflects the strength of the CIPP model (Zhang, et. al, 2011).

This research was conducted to analyze the effectiveness of the independent farmer card and its effect on improving farmers' welfare. This research was conducted because there has never been any research on independent farmer cards in Bojonegoro Regency. This needs to be done so that the Bojonegoro government also knows the results of the independent farmer card program from the establishment of the program to the current condition.

METHODS

Research Approach

This research uses a quantitative approach, which is characterized by the use of numbers in every step, as defined by (Arikunto, 2020). This approach prioritizes the use of axioms, formulas, and solution problems to deal with problems directly, from data collection to the appearance of the results. Data obtained from in-depth interviews with trusted sources on the Independent Farmer Card program will be presented in tabular form and described for ease of understanding.

Location and Time of Research

The research location was determined purposively at the Lohjinawe Farmer Group Association (Gapoktan) in Samberan Village, Kanor District, Bojonegoro Regency. The location was chosen with the consideration that the three farmer groups in the Gapoktan, namely the Subur Makmur Farmer Group, the Lohjinawe Farmer Group and the Gemah Ripah Farmer Group, had received the Independent Farmer Card program. With the removal of subsidies for fertilizers, government intervention through agricultural policies is expected by farmers. Therefore, it is important to measure the effectiveness of the program so that the government can obtain adequate information on the program launched. So that the objectives and benefits of the program for the welfare of farmers can be realized as expected. This research was conducted through direct interviews in January-February 2024.

Sampling Methods

The population in this study were farmers of Samberan Village, Kanor Subdistrict, Bojonegoro Regency. Determination of the sample is done by random sampling technique (random sample). Random sampling technique is a sampling technique from the population in such a way that each sample unit in the population has an equal chance of being selected into the sample (Parel et al., 1973). The reason underlying the determination of samples with random sampling techniques is because the population in the study is homogeneous with a total of 370 KPM beneficiary farmers in Samberan Village. Determination of the number of samples using the Slovin method (Umar, 2005) with **Equation 1**.

$$n = \frac{N}{1+N.e^2} \text{.....(1)}$$

Description:
n = sample size
N = population size
e^2 = per cent allowance for inaccuracy due to sampling error that is still tolerated or desired

The level of inaccuracy used was 1%. The number of samples obtained was 78 farmers in Samberan Village, Kanor Subdistrict. In order to anticipate erroneous respondents, the number of samples was decided to be 100 farmers.

Data Analysis Method

Structural Equation Modeling (SEM) is a statistical technique that integrates variable analysis and path analysis to test and estimate causal relationships between variables (Abdillah et al., 2021). SEM allows the analysis of relationship patterns between latent and manifest constructs, as well as measurement error directly (F. Hair Jr et al.,

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2014). The reasons for using SEM by researchers include its ability to estimate multiple relationships between latent and manifest variables, as well as its ability to describe the relationship between latent and manifest variables (Rachmadiyanti, 2018). The variables in the study can be seen in **Table 1**.

Table 1. Research variables

NO	VARIABLES	INDICATOR
1.	Context (X1)	a. KPM follows the applicable rules from the government, b. KPM helps with community problems, c. The KPM program aims to provide fertilizer, scholarships, training, and guaranteed purchase of agricultural products, d. The suitability of program objectives to the needs of farmers, such as fertilizers, scholarships, training, and guaranteed purchase of agricultural products, e. The KPM program collaborates with local universities to provide scholarships and allow village-owned enterprises to purchase agricultural products.
2.	Input (X2)	a. KPM program planning follows the applicable stages, b. The appointed extension workers meet the applicable requirements, c. The KPM program involves farmer groups in assisting farmers, d. The KPM program includes fertilizer provision, scholarships for farmers' children, crop failure insurance, training, access to capital, and guaranteed purchase of agricultural products, e. The KPM program provides enough budget for all program benefits.
3.	Process (X3)	a. The KPM program is implemented on time as needed, b. The KPM program can be accessed according to the needs of farmers, c. The implementation of the KPM program went smoothly
4.	Product (X4)	a. The KPM program was implemented according to targets and results, b. The KPM program benefits farmers and farmer groups, c. KPM program implementers make a report after the implementation d. KPM program needs to be continued in the future
5.	Program Effectiveness (Y1)	a. Targeted accuracy of the program, b. Program Socialization, c. Program Objective d. Program Monitoring
6.	Welfare (Y2)	a. Income Level, b. Education Level, c. Household Expenses

RESULTS AND DISCUSSION

1. Evaluation of the Measurement Model *(Outer Model)*

Convergent Validity Test

The validity test is carried out to determine the ability of the research instrument to measure what should be measured. Convergent validity testing in this study was carried out by looking at the *Average Variance Extracted* (AVE) and *Loading Factor values. The* criteria used to test convergent validity in this study are having an AVE value> 0.5 and a *loading factor* value> 0.7 (F. Hair Jr et al., 2014). From the data in figure 1, it is found that each variable has an AVE value> 0.5. An AVE value> 0.5 indicates that on average a measured construct is able to explain more than 50% of the variance of all items on a construct. In addition, the data in the table above also shows that all indicators have a *loading factor* value> 0.7. The *loading factor* value> 0.7 indicates that the level of variation of an indicator is able to be explained by the measured construct (F. Hair Jr et al., 2014). Based on the AVE value and *loading factor*, each variable and indicator has met the convergent validity test criteria.

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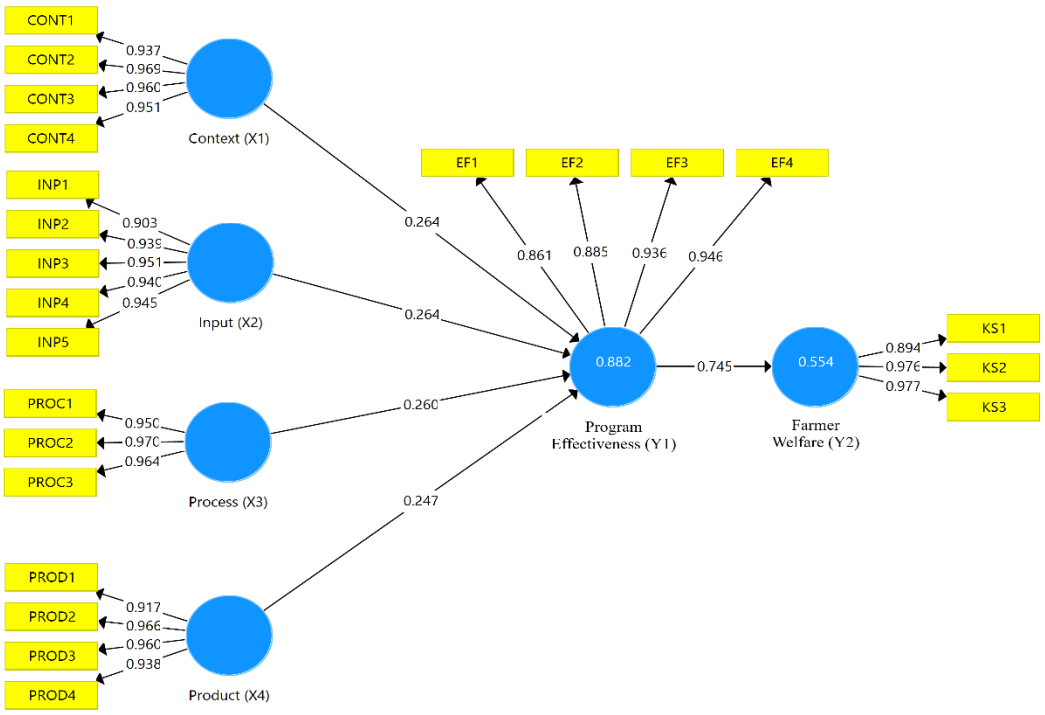

Figure 1. Diagram of the calculation results using SEM-PLS

Discriminant Validity Test

Discriminant validity test is conducted to determine the extent to which a construct is empirically different from other constructs in the *inner model* or structural model (F. Hair Jr et al., 2014). Discriminant validity testing in this study was carried out by testing the *cross loading* value and the *Fornell-Larcker* value. *The* criteria used in testing discriminant validity by testing the *cross loading value* is to have a higher *loading* value than the *cross loading value for* each construct. Meanwhile, the criteria for testing discriminant validity by looking at the *fornell-Larcker value* is that the value of a construct has a higher value than the value of other constructs. Figure 1 shows that all indicators of each construct have a higher *loading* value than the *cross loading value.* This indicates that each construct has met the criteria for discriminant validity testing.

Table 2. *Fornell-Larcker* value

	Context (X1)	Program Effectiveness (Y1)	Input (X2)	Farmer Welfare (Y2)	Process (X3)	Product (X4)
Context (X1)	0.954					
Program Effectiveness (Y1)	0.852	0.908				
Input (X2)	0.768	0.852	0.936			
Farmer Welfare (Y2)	0.676	0.745	0.666	0.950		
Process (X3)	0.760	0.851	0.755	0.736	0.961	
Product (X4)	0.758	0.849	0.762	0.714	0.769	0.946

Table 2 shows that all constructs in this study have a higher *fornell-larcker* value than the *fornell-larcker* value of other constructs. This can be seen through the *fornell-larcker value of* a construct in the diagonal direction has a higher value than the value of other

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constructs in the horizontal and vertical directions. These results indicate that each construct has met the discriminant validity test criteria. The validity of the results of this discriminant validity test indicates that there is no relationship between indicators in a construct and other constructs.

Reliability Test

The reliability test is carried out to determine the extent to which measurements are made without bias, to ensure consistent measurements across time and across various items in the instrument (Sekaran and Bougie, 2016). The reliability test in this study was carried out by looking at the *Cronbach's Alpha* and *Composite Reliability* values. The value criteria used to conduct the reliability test in this study are having a *Cronbach's Alpha* value> 0.7 and *Composite* Reliability> 0.6 (F. Hair Jr et al., 2014).

Table 3. Composite Reliability and Cronbach's Alpha values

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Context (X1)	0.967	0.967	0.976	0.911
Program Effectiveness (Y1)	0.928	0.929	0.949	0.824
Input (X2)	0.964	0.966	0.972	0.876
Farmer Welfare (Y2)	0.945	0.959	0.965	0.902
Process (X3)	0.959	0.959	0.973	0.924
Product (X4)	0.960	0.962	0.971	0.894

Table 3 shows that each variable, both exogenous and endogenous variables in this study consisting of variables Context (X1), Input (X2), Process (X3), Product (X4), Program Effectiveness (Y1) and Farmer Welfare (Y2) have met the reliability test criteria indicated by *Cronbach alpha* value > 0.7 and *composite reliability* > 0.6. Therefore, it can be concluded that each indicator measuring each variable in this study is consistent or reliable.

2. Structural Model Evaluation (Inner Model)

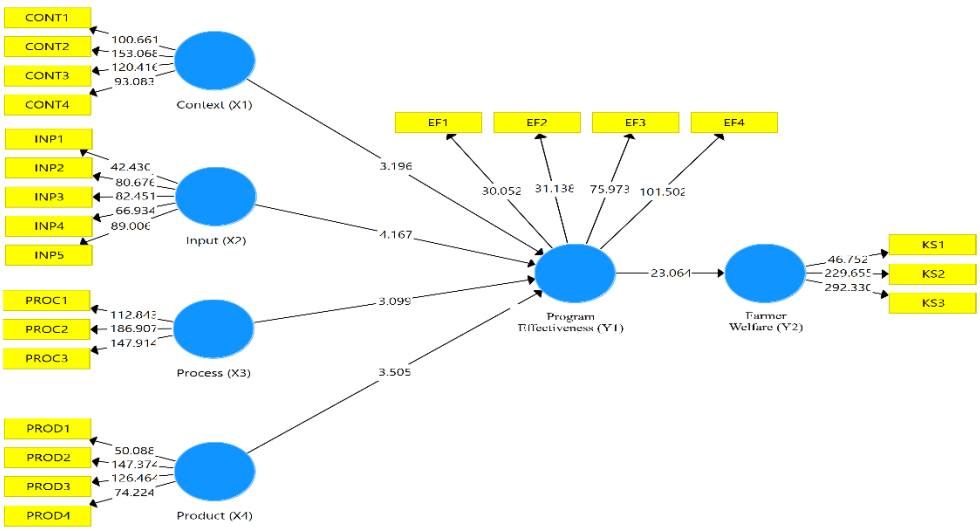

Figure 2. Diagram of the calculation results using SEM-PLS

Evaluation of the Coefficient of Determination (R)²

Evaluation of the coefficient of determination is very commonly used in structural model evaluation. The coefficient of determination is used to show the combined effect of exogenous latent

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variables on endogenous latent variables (F. Hair Jr et al., 2014). The value of the coefficient of determination ranges from 0 to 1. The higher the coefficient of determination indicates a higher level of prediction accuracy. According to (F. Hair Jr et al., 2014), there are guidelines in interpreting the coefficient of determination (R^2), namely 0.25 (weak), 0.50 (moderate), and 0.75 (strong).

Table 4. Value of the Coefficient of Determination (R^2)

	R Square	R Square Adjusted
Program Effectiveness (Y1)	0.882	0.877
Farmer Welfare (Y2)	0.554	0.550

Based on the results of data processing in **Table 4**, it is obtained information that the R value of the Program Effectiveness variable is 0.882. This indicates that the contribution of the influence of the exogenous latent variables Context (X1), Input (X2), Process (X3), Product (X4) on the endogenous latent variable Program Effectiveness is 88.2%, which indicates that it has a relatively strong level of prediction accuracy. [2] Meanwhile, the R value of the Farmer Welfare variable is 0.554. This indicates that the contribution of the influence of the exogenous latent variable Program Effectiveness on the endogenous latent variable Farmer Welfare is 55.4%, which indicates a moderate level of prediction accuracy.

Evaluation of Effect Size Value (F2)

In addition to evaluating the coefficient of determination, the structural model evaluation is also carried out by evaluating the *effect size value*. Evaluation of the *effect size value* allows researchers to analyze the relevance of the construct in explaining the selected endogenous construct. According to Cohen in F. Hair Jr et al., (2014) there are guidelines for interpreting the *effect size* value, namely a value of 0.02 (small effect), 0.15 (medium effect), and a value of 0.35 (large effect).

Table 5. *Effect Size* Value (F^2)

	Context (X1)	Program Effectiveness (Y1)	Input (X2)	Farmer Welfare (Y2)	Process (X3)	Product (X4)
Context (X1)		0.183				
Program Effectiveness (Y1)				1.244		
Input (X2)		0.184				
Farmer Welfare (Y2)						
Process (X3)		0.179				
Product (X4)		0.159				

Based on the results of data processing in the **Table 5** shows that the effect size of exogenous variables Context (X1), Input (X2), Process (X3), Product (X4) is classified as moderate to the variable Effectiveness of the Program as indicated by the effect size value of 0.183; 0.184; 0.179 and 0.159. The effect size of the Program Effectiveness variable is classified as large on the Farmer Welfare variable, as evidenced by the effect size value of 1.244.

3. Evaluation of Predictive Relevance Value (Q2)

The predictive relevance value (Q^2) is obtained through a *blindfolding* procedure.

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The Q^2 value must be greater than 0 for an endogenous construct to indicate the prediction accuracy of the structural model for that construct. According to (F. Hair Jr et al., 2014), there are rules for evaluating the Q^2 value, namely the Q^2 values of 0.02, 0.15 and 0.35 indicate that exogenous constructs have small, medium and large predictive relevance or accuracy to a particular endogenous construct.

Table 6. Predictive Relevance Value $(Q)^2$

Variables	Q^2	Description
Program Effectiveness (Y1)	0.690	Great
Farmer Welfare (Y2)	0.757	Great

Based on **Table 6**, it shows that the variables of Program Effectiveness and Farmer Welfare have Q^2 values of 0.690 and 0.757. The Q^2 of both variables has a value greater than 0.35, which indicates that the variables Context (X1), Input (X2), Process (X3), Product (X4) have great predictive relevance or accuracy to the variables of Program Effectiveness and Farmer Welfare.

4. Hypothesis Testing

After fulfilling all the test criteria in the evaluation of the measurement model and structural model, then the research hypothesis testing is carried out. Hypothesis testing is carried out to determine whether the hypothesis proposed in the study is accepted or rejected. Hypothesis testing is done by looking at the *path coefficient* value, *p-value,* and *t-value. The* hypothesis can be accepted if the *path coefficient value is* positive, *p-value* <0.05 and *t-value*> 1.96. The results of hypothesis testing in this study can be seen in **Table 7**.

Table 7. Hypothesis Testing Results

Hypothesis	Variable Relationship	*Path Coefficient*	*P-value*	*T-value*	Description
H1a	Context (X1) -> Program Effectiveness (Y1)	0.264	0.001	3.271	Accepted
H1b	Input (X2) -> Program Effectiveness (Y1)	0.264	0.000	4.292	Accepted
H1c	Process (X3) -> Program Effectiveness (Y1)	0.260	0.002	3.101	Accepted
H1d	Product (X4) -> Program Effectiveness (Y1)	0.247	0.000	3.679	Accepted
H2	Program Effectiveness (Y1) -> Farmer Welfare (Y2)	0.745	0.000	24.254	Accepted

Based on the results of hypothesis testing in **Table 7**, hypothesis H1a has a *path coefficient of* 0.264, with a *p-value of* 0.001 and a *t-value* of 3.271. The *path coefficient of* H1a shows that there is a positive direction of influence, and has a *p-value* and *t-value of* <0.05 and >1.96, which means that Context (x1) has a positive and significant effect on Program Effectiveness (Y1). Therefore, hypothesis H1a in this study can be accepted. Context (x1) is a factor that affects Program Effectiveness (Y1).

Hypothesis H1b in this study has a *path coefficient of* 0.264, with a *p-value of* 0.000 and a *t-value* of 4.292. The *path coefficient of* H1a shows that there is a positive direction of influence, and has a *p-value* and *t-value of* <0.05 and >1.96, which means that Input (x2) has a positive and significant effect on Program Effectiveness (Y1). Therefore, hypothesis H1b in this study can be accepted. Input (x2) is a factor that affects Program Effectiveness (Y1).

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Hypothesis H1c in this study has a *path coefficient of* 0.260, with a *p-value of* 0.002 and a *t*-value *of* 3.101. The *path coefficient of* H1c shows that there is a positive direction of influence, and has a *p-value* and *t-value of* <0.05 and >1.96, which means that Process (X3) has a positive and significant effect on Program Effectiveness (Y1). Therefore, hypothesis H1c in this study can be accepted. Process (X3) is a factor that affects Program Effectiveness (Y1).

Hypothesis H1d in this study has a *path coefficient of* 0.247, with a *p-value of* 0.000 and a *t*-value of 3.679. The *path coefficient of* H1d shows that there is a positive direction of influence, and has a *p-value* and *t-value of* <0.05 and >1.96, which means that Product (X4) has a positive and significant effect on Program Effectiveness (Y1). Therefore, hypothesis H1d in this study can be accepted. Product (X4) is a factor that affects Program Effectiveness (Y1).

Based on the results of hypothesis testing in the table above, hypothesis H2 in this study has a *path coefficient of* 0.745, with a *p-value of* 0.000 and a *t-value of* 24.254. The *path coefficient* of H2 shows that there is a positive direction of influence, and has a *p-value* and *t-value of* <0.05 and >1.96, which means that the effectiveness of the program has a positive and significant effect on farmer welfare. Therefore, hypothesis H2 in this study can be accepted.

5. Loading Factor Value and Path Coefficient Value

To see how the influence of the CIPP Model (Context (X1), Input (X2), Process (X3), Product (X4)) on Program Effectiveness and its impact on Farmer Welfare in Bojonegoro Regency, data processing was carried out through SmartPLS 3.2.9. The processed data results can be seen through **Figure 2** which shows a path diagram that has a *loading factor* value and a *path coefficient* value. The *path coefficient* value shows the direction of the relationship and the significance of the variables in this study. The results of data processing for each influence relationship between variables in the hypothesis are analyzed and discussed to gain a deeper understanding. The following is a discussion of the results of the PLS-SEM analysis in this study.

6. Factors Affecting the Effectiveness of the Independent Farmer Card Program

The test results indicate that the KPM program's effectiveness is high, with program monitoring being the most influential factor. Effective monitoring enhances overall program effectiveness. The second highest factor is program objectives, which align well with the benefits provided to farmers, such as fertilizers, seeds, scholarships, training, guaranteed product purchases, crop failure insurance, and access to capital. These benefits directly improve the program's effectiveness. The third factor is program socialization, which ensures information reaches the community and target participants. Finally, the accuracy of program targets also contributes to its effectiveness, ensuring participants meet predetermined criteria.

7. The Effect of the CIPP Model on the Effectiveness of the KPM Program

The test results indicate that the Context dimension of the CIPP Model positively and significantly affects Program Effectiveness. This aligns with studies by (Ishak et al., 2017), (Rus et al., 2018), and (Ishak et al., 2019), which evaluated the My Kampung My Future (MKMF) program in Malaysia. Context indicators identify relevant needs, opportunities, and diagnostics, ensuring the KPM program adheres to government rules and addresses farmers' issues (e.g., provision of fertilizers, scholarships, training, guaranteed purchase of agricultural products, access to capital). The KPM program remains relevant and collaborates with stakeholders (universities, village enterprises, farmer groups, insurance) to enhance its effectiveness. Understanding the context

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helps tailor the KPM program to Bojonegoro's specific needs, aiding resource allocation and maximizing impact on local farmers.

The test results indicate that the Input dimension of the CIPP Model positively and significantly affects Program Effectiveness. This aligns with previous studies by (Ishak et al., 2017), (Rus et al., 2018), and (Ishak et al., 2019). The Input indicator assesses the strategies and resources needed to achieve program goals. The KPM program's planning has adhered to the required stages, with extension workers and farmer groups actively assisting in the implementation. The program includes provisions for fertilizers, scholarships, crop failure insurance, training, access to capital, and guaranteed purchase of agricultural products. Proper implementation of these input indicators enhances the KPM program's effectiveness. Good planning and effective strategies ensure efficient resource use, clear objectives, and better coordination among involved parties, increasing the program's success.

The test results show that the Process dimension of the CIPP Model has a positive and significant effect on Program Effectiveness. Process indicators monitor program implementation and provide necessary feedback and documentation. The KPM program has been timely and met farmers' needs, overcoming obstacles with proper supervision. Effective process indicators enhance the KPM program's effectiveness, ensuring it meets its goals. The Process dimension focuses on implementation procedures, methods, and activities, influencing program success. Efficient processes ensure cost-effectiveness and timeliness, leading to better outcomes and participant satisfaction in the KPM program.

The test results show that the Product dimension of the CIPP Model positively and significantly affects Program Effectiveness. If the Product dimension increases, Program Effectiveness also increases. Product indicators measure program outcomes and assess success. This study concludes that the KPM program aligns with targets, benefits farmers and groups, provides implementation reports, and ensures future sustainability. Effective implementation of these product indicators enhances the KPM program's effectiveness, achieving its objectives. Product evaluation in the CIPP model is crucial for determining program success, assessing impacts, participant satisfaction, and providing feedback for future improvements.

The Stufflebeam model provides a framework for planning extension program assessment. Stufflebeam (Yusuf et al., 2021) has developed an evaluation approach known as the CIPP model concerned with providing meaningful knowledge to people in decision-making positions. Context, Input, Process, and Product (CIPP) are the initial letters of the evaluation. These four assessment forms are interconnected; while focusing on only one component is possible, a complete extension program evaluation should include all four categories. The primary purpose of evaluation is to improve rather than prove. Several studies in agriculture have used the CIPP model as the basis for evaluating agricultural programs.

According to Yusuf et al. (2022), several agricultural studies have been found to use the CIPP evaluation model as their guide for conducting evaluation research. From these findings, CIPP has proven to be a good evaluation model in improving and assisting decision-making on a program that has been implemented. Some weaknesses have been found in the way the article was presented. However, the project evaluation met the objectives based on the context, input, process, and product elements. Although the findings are positive, the methodology used for the CIPP model evaluation needs to be clarified. Evaluation studies of agricultural programs using CIPP are found in various research areas, including performance evaluation of extension workers, women's entrepreneurship programs, My Kampung My Future program, integrated farming of

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cattle and oil palm plantations, and community enterprises. However, more research is needed to evaluate urban agriculture programs comprehensively.

Maaidah et al. (2022) in their conceptual paper examines the use of the Context, Input, Process, and Product (CIPP) evaluation model to provide feedback to organizers in determining whether to continue, improve, or stop a program. Planning, creating, implementing, and analyzing the effectiveness of a program are part of the assessment results. The CIPP model was chosen because it comprehensively addresses context, input, process, and product. Development output assessment The CIPP model was created in 1971 and is widely and frequently used to evaluate the efficiency of training programs. In addition to meeting individual needs, the CIPP model was used in this study to help organizers and participants achieve program goals. The CIPP model makes it possible to demonstrate the training program implementation and efficacy results while reducing risk management. Implementing the CIPP model in entrepreneurship training programs facilitates the compilation of knowledge and information that aligns with program objectives. This study can support the demonstration of the effectiveness of training program implementation outcomes in helping assess risk management models in micro-entrepreneurship training programs. Consequently, the comparative analysis of assessment models from this study can be utilized to determine need, importance, and suitability, thereby achieving the organizers' objectives when evaluating a program.

Salehi et al. (2021) said evaluations provide effective feedback for development plans and programs. In this case, it is very important to ensure that the output of agricultural extension and education projects is as expected. Therefore, the main objective of this study is to evaluate the location approach of the agricultural extension model from the actors' perspective and to analyze their gaps through the context, input, process, and product (CIPP) evaluation model. The study was quantitative, applied, survey-based, and causal-comparative in terms of nature, objectives, methodology, and type of research. The sample included 150 lead and follower farmers from a total of 40 model sites, and 37 subject matter experts selected using random and purposive sampling methods, respectively. The data collection instrument was a researcher-made questionnaire whose reliability was confirmed by calculating Cronbach's alpha coefficient (0.75 a 0.90), and validity was determined by an expert panel. The data were further analyzed using SPSS24 and comparative statistical tests. The comparative results showed that the mean scores of experts' views on all items at various stages of evaluation (i.e., context, input, process, product, output, and re-engineering) were higher compared to farmers. In addition, farmers' perspectives at the context and input evaluation stages were not the same as those of experts, and their satisfaction with the project increased as they approached the output evaluation stage. The gap analysis results also show that the largest negative gap between experts' and farmers' views is related to the input evaluation stage, and the smallest gap is related to site re-engineering. Therefore, more attention should be paid to building and maintaining farmers' trust during the early stages of planning and implementing model agricultural extension sites.

(Ghasemi et al., n.d.).2022) suggests that to interact with research institutions and centers, as one of the main components of the new agricultural extension system, the term "supportive researcher" is defined. Therefore, the main objective of this survey research was to validate the CIPP model in evaluating the effectiveness of supportive researchers. The statistical population of this study consisted of the agricultural extension network (N= 9627), of which 566 people were determined as the sample using the Daniel sampling formula and simple sampling techniques. Data were collected through questionnaires;

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questionnaire validity was approved by a panel of experts, construct validity (AVE index), and discriminant validity. The reliability of the questionnaire was approved by calculating Cronbach's alpha and composite reliability (CR). The collected data were analyzed with SPSS22 and Smart PLS3 software. The results of prioritization showed that in the Context dimension, "completeness of tasks and responsibilities of supporting researchers"; in the Input dimension, "technical capabilities of supporting researchers"; in the Process dimension, "providing technical recommendations to extension workers and farmers"; and finally, in the Product dimension, "application of recommendations to target users" ranked the highest. In addition, the results of prioritizing the dimensions of evaluating the effectiveness of supporting researchers show that "Context" is ranked the highest and "Process" is ranked the lowest. In addition to confirming the homogeneity and reliability of indicators (validation of the CIPP model), the results of confirmatory factor analysis confirmed that the effectiveness evaluation model of supporting researchers has four components (namely Context, Input, Process, and Product). Finally, considering the completeness of the CIPP model and the validation of its dimensions and components in this study, it is recommended that this model be used in evaluating the effectiveness of support researchers.

The Agribusiness Microfinance Institution (MFIA) performance research conducted by (Gurning et al., 2019) used Context, Input, Process, and Product (CIPP) as an approach to evaluate performance. The research was conducted on 65 MFIAs in Gunungkidul Regency based on MFIAs that had conducted Annual Member Meetings (AMM) in January-March 2018. Direct interviews with MFIA managers using questionnaires were used to obtain primary data. Secondary data was collected from the reports. The CIPP model was used in this investigation (Context, Input, Process, Product). The purpose of the study was to assess the performance of the MFIA Rural Agribusiness Development Program in Gunungkidul Regency. The Rural Agribusiness Development Program was created as a stimulus, with the aim of evolving into MFIA to provide long-term finance for farmers, as MFIA is the only financial institution dedicated to providing agricultural capital for farmers in rural areas. As a result, the performance of MFIAs in Gunungkidul Regency in 2017 falls under good criteria according to the metrics in the CIPP model. Previous research supported by (Ishak et al., 2017), (Rus et al., 2018), and (Ishak et al., 2019). They studied the effectiveness evaluation of the My Kampung My Future (MKMF) program based on the CIPP model in Malaysia. The MKMF program was organized by the Malaysian Ministry of Agriculture to encourage youth involvement in the agriculture, fisheries, and food sectors, as well as small and medium industries. The selection of the CIPP Model used in this study focuses more on the improvement process. The quantitative study used a survey approach where questionnaires were distributed to 212 MKMF participants for data collection and were analyzed using SPSS software. The results of the Input dimension showed that the mean value and standard deviation were moderate, the understanding of the role of MKMF, the explanation from MOA officials, and the latest facility elements were at a high level. Meanwhile, the findings to maintain the long-term viability of the program, it is evident that the assessment process is important from the process dimension shows that the total mean value is at a high level and there are two moderate constructs in terms of problem-solving and loss responsibility. In conclusion, to maintain the long-term viability of the program, it is evident that the assessment and improvement process is essential in the input and process dimensions. In addition, a CIPP (Context, Input, Process, and Product) model evaluation was conducted in an effort to ensure the effectiveness and smooth running of the program in the future.

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In this study, researchers found that based on the test results, it can be seen that the effectiveness of the KPM Program is in a high category. The highest factor affecting the effectiveness of the KPM program is program monitoring. Program monitoring is an activity carried out after the implementation of the program as a form of attention to program participants. With good program monitoring, the effectiveness of the program will be even better.The second highest factor affecting the effectiveness of the KPM program is program objectives.

Program objectives are the extent of conformity between the results of program implementation and the program objectives that have been set previously. In this case, the objective of the KPM program is to make it easier for farmers to access the benefits of the KPM program (provision of fertilizers and seeds, scholarships, training and development, guaranteed purchase of agricultural products, crop failure insurance, and access to capital). Because farmers can directly feel the benefits of the KPM program, the effectiveness of the KPM program is getting better.

Based on the test results, it can be seen that the Context dimension of the CIPP Model has a positive and significant effect on Program Effectiveness. The test results show that if the Context dimension of the CIPP Model increases, it will significantly increase Program Effectiveness. The test results are also in accordance with several previous studies conducted by (Ishak et al., 2017), (Rus et al., 2018), and (Ishak et al., 2019). They studied the effectiveness evaluation of the My Kampung My Future (MKMF) program based on the CIPP model in Malaysia.The test results show that the effectiveness of the KPM Program has a positive and significant influence on farmers' welfare. This shows that an increase in the program's effectiveness will significantly improve farmers' welfare in Bojonegoro Regency.

8. The Effect of Program Effectiveness on Farmer Welfare

Based on the test results in the table above, it shows that the effectiveness of the KPM program has a positive and significant influence on farmers' welfare. This shows that an increase in the effectiveness of the program will significantly improve the welfare of farmers in Bojonegoro Regency. (Mukhtar et al., 2016) define that effectiveness is the ability to determine the right work to achieve predetermined goals. From this, it can be seen that a job can be said to be effective if the work can realize the predetermined goals. Effectiveness is the ability to determine the right work to achieve predetermined goals. From this research it can be concluded that the KPM program in Bojonegoro has been right on target, namely farmer group members. The KPM program in Bojonegoro has been well socialised by related parties. The objectives of the KPM program have been well achieved, namely the provision of fertilisers and seeds, scholarships, training and development, guaranteed purchase of agricultural products, crop failure insurance, access to capital. In addition, the monitoring of the KPM program has also been carried out well. Because all indicators of program effectiveness have been implemented well, the welfare of farmers in Bojonegoro is also increasing.

According to the Indonesian Central Bureau of Statistics (2000), there are several indicators to measure the level of household welfare in a region, including: the level of family income, the composition of household expenditure by comparing expenditure on food and non-food items, the level of family education, the level of family health, and the condition of housing and facilities owned by the household. With the increased effectiveness of the KPM program in Bojonegoro, the welfare of farmers is in a fairly high category. With the existence of scholarships from the KPM program, more and more farmers' children in Bojonegoro are getting higher education (S1), as many as 30%. The provision of fertilizer and seeds,

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training and development, guaranteed purchase of agricultural products, crop failure insurance, and access to capital can increase farmers' income, so it is classified as high, with 41% having an income of 2-3 million and 33% earning 3-4 million per month.

CONCLUSION

Based on the results of the research and discussion on the influence of the CIPP Model on the Effectiveness of the Independent Farmer Card (KPM) Program and its impact on the welfare of farmers in Bojonegoro Regency, several conclusions can be drawn. Factors such as program monitoring, program objectives, program socialization, and targeting accuracy have been identified as elements that influence the effectiveness of the KPM Program. Furthermore, the CIPP Model which includes Context (X1), Input (X2), Process (X3), and Product (X4) shows a positive and significant influence on program effectiveness. This indicates that improvements in each component of the CIPP Model will significantly increase the effectiveness of the KPM Program. Furthermore, the effectiveness of the KPM Program is proven to have a positive and significant influence on improving the welfare of farmers in Bojonegoro Regency, which indicates that an increase in program effectiveness can significantly improve the welfare of farmers.

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