THE INFLUENCE OF FARMING EXPERIENCE, PRODUCTION COSTS, SELLING PRICE, AND NUMBER OF TREES THROUGH PRODUCTION AS INTERVENING VARIABLES ON THE INCOME OF CRYSTAL GUAVA FARMERS IN UMBULSARI DISTRICT, JEMBER REGENCY

Affan Fathoni[1], Muhammad Firdaus[2], Farid Wahyudi[3]

Student of Development Economics, Faculty of Economics and Business, Institute Technology and Science Mandala[1]
Lecturer in Master of Management, Faculty of Economics and Business, Institute Technology and Science Mandala[2]
Lecturer in Development Economics, Faculty of Economics and Business, Institute Technology and Science Mandala[3]

ABSTRACT

This research aims to determine the influence of farming experience and costs production, selling price, and number of trees through production as variables intervening on the income of crystal guava farmers in Umbulsari District Jember Regency. The data used in this research is data secondary and primary data collected through distributing questionnaires against 96 correspondents. The sampling technique used in this research is a non-probability sampling technique with the snowball sampling method. The data processing method uses the path analysis method with the help of tools SPSS 25 analysis. The test used in this research is the instrument test data (Validity and Reliability Test), classic assumption test, t test, and Sobel test. Results This research shows directly the variable of farming experience significant effect on production variables, while cost variables production, selling price, and number of trees do not have a significant effect on production variables. And directly the variables are production costs, selling prices, and production has a significant effect on the income variable, meanwhile the variables of farming experience and number of trees did not have a significant effect to the income variable. To test indirectly, use the test Sobel test calculator concluded that the farming experience variable through the production variable has a significant effect on the income variable crystal guava farmers in Umbulsari District, Jember Regency.

Keywords: Farming Experience, Production Cost, Selling Price, Production, Income.

INTRODUCTION

As an agricultural country, Indonesia has the agricultural sector as a support for the national economy. The agricultural sector is dependent on some people in Indonesia. This sector plays a very important role in supporting the economy in developing countries, because there are still many people who rely on the agricultural sector. Indonesia is included in the category of developing country because the agricultural sector is a provider of basic materials, a provider of raw materials for industry, contributes greatly to the level of national income, provides a source of foreign exchange for the country through export activities, a source of livelihood for the community and so on. This makes the agricultural sector the basis for national economic development.

The horticulture subsector is a subsector that plays an important role in the agricultural sector. This is because in agriculture one of the potentials is horticultural commodities which can grow the economy. Commodity development of the horticulture subsector is prioritized through its superior commodities of fruit and vegetable crops.

One of the Horticulture subsectors in Indonesia is the crystal guava fruit. Crystal guava is a horticultural crop from fruit commodities that has great potential, because the crystal guava farming business provides income that is large enough to be worthy of being a source of income for farmers.

According to the Central Statistics Agency (2023), East Java is the province with the highest level of guava production in Indonesia with production reaching 117,919 tons in 2022, followed by Central Java Province with production reaching 91,293 tons and West Java Province with production reaching 79,961 tons.

According to the East Java Central Statistics Agency (2023), guava production in East Java Province in 2019 reached 485,606 quintals. In 2020 there was an increase reaching production of up to 908,458 quintals. In 2021 there was a slight decrease in production at 834,041 quintals, and in 2022 there will be an increase in production reaching 1,179,123 quintals. Jember Regency is a district in East Java that has achieved relatively high production figures, with production reaching 110,910 quintals in 2022 (East Java Central Statistics Agency. 2023).

According to the Jember Central Statistics Agency (2023), Umbulsari District is one of the sub-districts that has relatively high guava production with production reaching 3,880 quintals after Ambulu District with production reaching 3,956 quintals in 2022.

Based on these data, interest arose in conducting research on the influence of farming experience, guava production costs, guava selling prices, and number of guava trees on the income of crystal guava farmers through crystal guava production in Umbulsari District, Jember Regency.

Show the problem formulation are: (1) 1. Do the variables farming experience, production costs, selling price and number of trees directly influence the production of crystal guava farmers in Umbulsari District, Jember Regency? (2) Do the variables farming experience, production costs, selling price, number of trees and production have a direct effect on the income of crystal guava farmers in Umbulsari District, Jember Regency? (3) What is the indirect effect of the variables farming experience, production costs, selling price, and number of trees through production on the income of crystal guava farmers in Umbulsari District, Jember Regency?

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Regional Economy

According to Maesaroh (2022:27), regional economics is said to be a science that focuses its discussion on the potential of a region and its surrounding areas. The discussion is not individual in scope but comprehensive in relation to regions with diverse potential and the policies that regulate economic growth in these regions.

Agribusiness

According to Karmini (2020:13) dan Firdaus (2017), Agribusiness is a strategy that can be applied in an effort to develop the agricultural sector. Agribusiness is a series of businesses in the sector that covers all aspects of agriculture, involving the provision of production factors such as land, capital, human resources and expertise, to the activities of cultivating crops or livestock, processing agricultural products, marketing, infrastructure and development. Agribusiness insight includes a comprehensive understanding of agricultural processes, including preparation of production factors, cultivation, processing (agro-industry), marketing, necessary infrastructure, and necessary coaching activities.

Income

According to Sochib (2018:47), Revenue is the circulation of financial inflows originating from business activities carried out by business entities within a certain period of time. Many people feel confused about the concept of income. This is because income can be interpreted as revenue or income. Income itself can be understood as income, while revenue can refer to the income generated or profit. Revenue has a significant impact on the welfare of a company. The greater the income, the higher the company's ability to cover all costs and carry out various activities. Apart from that, income also affects the company's financial results which are recorded in the profit and loss statement. Thus, revenue can be considered the main source of life for a company.

Production

According to Karmini (2018:12), Production is an activity that involves the utilization or allocation of various production factors with the aim of increasing value and producing goods or services to meet human needs. Product utility refers to the product's ability to fulfill human needs. Product uses can be grouped into 5 groups, namely form, place, time, basic and property uses.

Selling price

According to Sunyoto (2020:130), price is the monetary value set for a particular product. Pricing methods may vary depending on the company. In small companies, top management often sets prices, whereas in large companies, the task of setting prices is usually given to division managers or product managers.

Production costs

According to Mahardika (2018: 187), production costs refer to the overall costs incurred by the company to obtain production factors and raw materials needed in the company's product manufacturing process.

Costs in an economic context refer to all expenditures required to make a product available to consumers. Meanwhile, in the production context, costs are all expenses that producers need to bear in creating goods or services. Production costs include capital output for the producer's needs in creating the product. Determining production costs requires care because some components can be identified easily, while others may require greater effort. Production costs include raw materials, auxiliary materials, worker salaries, equipment depreciation, rent and capital, support costs, marketing costs, and taxes.

Hypothesis

The hypothesis proposed in this research are:
1. It is suspected that the variables farming experience, production costs, selling price and number of trees have a direct influence on the production of crystal guava farmers in Umbulsari District, Jember Regency.
2. It is suspected that the variables farming experience, production costs, selling price, number of trees and production have a direct influence on the income of crystal guava farmers in Umbulsari District, Jember Regency.
3. It is suspected that the variables farming experience, production costs, selling price and number of trees through production indirectly influence the income of crystal guava farmers in Umbulsari District, Jember Regency.

RESEARCH METHODS

Types of research

This research is included in the quantitative descriptive category. According to Sugiyono (2019:23), "a quantity-oriented approach can be explained as a research approach originating from the philosophy of positivism, which is used to investigate a number of specific populations or samples. Usually, in sampling, the method often used is the random method, where data is collected using appropriate research instruments, then analyzed quantitatively or statistically to test previously formulated hypotheses.

Location and time of research

The research area regarding the influence of farming experience, production costs, selling prices, and number of trees on the income of crystal guava farmers through production in Umbulsari District, Jember Regency was carried out in Umbulsari District, Jember Regency in 6 villages including Gunungsari, Sukoreno, Mundurejo, Umbulsari, Gadingrejo, and Paleran. This research was carried out between October 2023 and January 2024.

Identify variables

1. Independent variables (Independent Variables)

   According to Sugiyono (2019:69), independent variables refer to variables that have an influence on or are the cause of changes or the existence of the dependent variable (dependent variable). The independent variables in this research are farming experience (X1), production costs (X2), selling price (X3), and number of trees (X4).

2. Dependent variable (Dependent Variable)

   According to Sugiyono (2019:69), the dependent variable is the variable that is affected or is the result of the independent variable. The dependent variable in this research is income (Y).

3. Connecting Variables (Intervening variables)

   According to Sugiyono (2019:70), an intervening variable is a variable that theoretically influences the relationship between the independent variable and the dependent variable and is an indirect relationship that cannot be observed and measured). In this study, the intervening variable used is production (Z).

Sampling method

The population in this study were crystal guava farmers in Umbulsari District, Jember Regency. The entire population in this study is unknown. According to Sugiyono (2019:127) "A sample is part of the totality and characteristics possessed by a population.". The object of this research is crystal guava farmers in Umbulsari District, Jember Regency. With a sample of 96 respondents using the side snowball sampling technique.

Method of collecting data

The data sources used in this research are observation, interviews, questionnaires and documentation. This type of research is quantitative descriptive research. The types of data in this research are primary data and secondary data.

Data analysis method

The analysis method is carried out in several stages, including instrument testing, classical assumption testing, path analysis, hypothesis testing, and Sobel testing. Instrument testing includes validity testing and reliability testing. Classic assumption tests include normality test, multicollinearity test and heteroscedasticity test (Firdaus, 2019).

RESULT ANALYSIS

General description of the research object

Jember is a district that is part of the province of East Java. Jember Regency is flanked by the Argopuro mountains in the north of Jember which stretch from west to east as well as a stretch of coast in the south. In the regional scope, Jember Regency holds an important position and plays a strategic role as one of the regional activity centers (PKW). The geographical location of Jember Regency is very strategic and has significant potential.

Jember also has one source of income from agriculture, which is in the West Jember region, namely Umbulsari District, Umbulsari District is one of the sub-districts in Jember Regency, East Java Province. The area of Umbulsari District is 72.10 km2. Umbulsari District consists of 10 villages. Umbulsari District is located to the west of the city of Jember with a distance of ±38 Km. one of the sub-districts that has a high level of guava production in Jember Regency.

Instrument Test
1. Validity Test
   The results of validity testing show that all statements related to the variables Farming experience (X1), Production costs (X2), Selling price (X3), Number of trees (X4), Production (Z), and Income (Y) have a calculated r value > r table value and can be said to be valid.

2. Reliability Test
   The results of the reliability testing produced variables of farming experience, production costs, selling prices, number of trees, production and income showing Cronbach's alpha values > 0.60. Specifically, the reliability of the farming experience variable is 0.628, production costs are 0.614, selling prices are 0.670, number of trees is 0.637, production is 0.613, and income is 0.692. Which shows that all variables are said to be reliable.

Classic assumption test
1. Normality Test
   The results of the normality test show that with a significance value of 0.200 > 0.05, implying that in this study the distribution tends to be normal.

2. Multicollinearity Test
   Based on the results of the multicollinearity test, it shows that the Farming Experience Variable is 0.926 > 0.1 and VIF 1.080 <10, meaning that multicollinearity does not occur. Variable production costs 0.901 > 0.1 and VIF 1.110 <10 means that multicollinearity does not occur. The selling price variable is 0.882 > 0.1 and VIF 1.134 <10, meaning that there is no multicollinearity. Variable Number of trees 0.856 > 0.1 and VIF 1.168 <10 means that multicollinearity does not occur. Production variable 0.891 > 0.1 and VIF 1.122 <10 means that multicollinearity does not occur. This can be interpreted that all independent variables in this study do not occur multicollinearity.

3. Heteroscedasticity Test
   Based on the results of the heteroscedasticity test, it shows that the farming experience variable has a significance value of 0.789 > 0.05, indicating that there is no heteroscedasticity. Likewise, the production cost variable with a significance value of 0.299 also shows the absence of heteroscedasticity because it is > 0.05. The selling price

variable has a significance value of 0.403 > 0.05, indicating the absence of heteroscedasticity. The same thing applies to the variable Number of trees with a significance value of 0.999 and the Production variable with a significance value of 0.197, both of which indicate that heteroscedasticity does not occur because the value is > 0.05.

Path analysis

According to Ghozali (2018:245) Path analysis is used to assess whether there is an indirect influence from independent factors such as farming experience, production costs, selling prices, and number of trees, on the dependent variable, namely income, through the intervening variable, namely production.

1. **Regression Coefficient 1**

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	12.349	3.038		4.065	.000
	X1	.385	.154	.249	2.494	.014
	X2	.148	.109	.134	1.358	.178
	X3	.192	.124	.157	1.556	.123
	X4	-.238	.118	-.199	-2.015	.047
a. Dependent Variable: Z						

Figure 1. Regression Results 1

Based on this figure, it is known that farming experience (X1) has a significance of 0.014, production costs (X2) of 0.178, selling prices (X3) of 0.123, and number of trees (X4) of 0.047. Therefore, it can be concluded that farming experience (X1) and number oftrees (X4) have a significant influence on production (Z). However, Production Costs (X2) and Selling Prices (X3) do not have a significant influence on Production (Z).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.364[a]	.133	.095	1.12005
a. Predictors: (Constant), X4, X1, X2, X3				

Figure 2. Results of R Square Path Coefficient Model 1

Based on this figure, the influence of the contribution of farming experience (X1), production costs (X2), selling price (X3), and number of trees (X4) on production (Z) is 0.133 or 13.3%. Meanwhile, 86.7% of the influence on Production (Z) comes from other factors investigated.Meanwhile, the value of ε_2 is calculated using the formula:

$$\varepsilon = \sqrt{(1 - R^2)}$$
$$\varepsilon_2 = \sqrt{1 - 0{,}133}$$
$$\varepsilon_2 = 0{,}931$$

2. **Regression Coefficient 2**

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	6.954	4.302		1.617	.109
	X1	-.385	.208	-.185	-1.850	.068
	X2	.300	.144	.201	2.084	.040
	X3	.408	.163	.248	2.501	.014
	X4	.169	.157	.105	1.073	.286
	Z	.322	.137	.239	2.354	.021

a. Dependent Variable: Y

Figure 3. Regression 2 results

Based on this figure, the analysis results show that the significance value of the Farming Experience variable (X1) is 0.068, the Production Cost variable (X2) is 0.040, the Selling Price variable (X3) is 0.014, the Number of trees variable (X4) is 0.286, and the Production variable (Z) is 0.021. Therefore, it can be concluded that Production Costs (X2), Selling Prices (X3), and Production (Z) have a significant influence on Income (Y), while farming experience (X1) and Number of trees (X4) do not have a significant influence significant to Income (Y).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.442[a]	.196	.151	1.45911

a. Predictors: (Constant), Z, X3, X2, X4, X1

Figure 4. Results of R Square Path Coefficient 2

Based on this figure, it can be understood that the contribution of experience in farming (X1), production costs (X2), selling price (X3), and number of trees (X4) to

production (Z) is 0.196 or 19.6%. The remaining 80.4% is the contribution of other variables that have been investigated.

Meanwhile, the value of ε_2 is calculated using the formula:

$$\varepsilon = \sqrt{(1 - R2)}$$
$$\varepsilon_2 = \sqrt{(1 - 0{,}196)}$$
$$\varepsilon_2 = 0{,}896$$

The results of the path calculations in this research are as follows:

Direct effect/DE calculation

1. The influence of the farming experience variable (X1) on the income (Y) of guava farmers in Umbulsari District.

   Deyxz = X1 ⟶ Y = -0.185

   This shows that the Farming Experience variable on Guava farmers' income in Umbulsari District is considered to have a negative effect because it is below 0.

2. The influence of the production cost variable (X2) on the income (Y) of guava farmers in Umbulsari District.

   Deyxz = X2 ⟶ Y = 0.201

   This shows that the variable production costs on the income of guava farmers in Umbulsari District is considered to have a weak effect because it is between 0 - 0.25.

3. The influence of the selling price variable (X3) on the income (Y) of guava farmers in Umbulsari District.

   Deyxz = X3 ⟶ Y = 0.248

   This shows that the selling price variable on the income of guava farmers in Umbulsari District is considered to have quite a strong influence because it is between 0.25 - 0.5.

4. The influence of the variable number of trees (X4) on the income (Y) of guava farmers in Umbulsari District.

   Deyxz = X4 ⟶ Y = 0.105

   This shows that the variable number of trees on the income of guava farmers in Umbulsari District is considered to have a weak effect because it is between 0 - 0.25.

5. The influence of the farming experience variable (X1) on the production (Z) of guava farmers in Umbulsari District.

$Deyxz = X1 \longrightarrow Y = 0.249$

This shows that the Farming Experience variable on Guava farmers' production in Umbulsari District is considered to have a weak influence because it is between 0 - 0.25.

6. The influence of the production cost variable (X2) on the production (Z) of guava farmers in Umbulsari District.

$Deyxz = X2 \longrightarrow Y = 0.134$

This shows that the variable production costs on the production of guava farmers in Umbulsari District is considered to have a weak influence because it is between 0 - 0.25.

7. The influence of the selling price variable (X3) on the production (Z) of guava farmers in Umbulsari District.

$Deyxz = X3 \longrightarrow Y = 0.157$

This shows that the selling price variable on the production of guava farmers in Umbulsari District is considered to have a weak influence because it is between 0 - 0.25.

8. The influence of the variable number of trees (X4) on the production (Z) of guava farmers in Umbulsari District.

$Deyxz = X4 \longrightarrow Y = -0.199$

This shows that the variable number of trees on the production of guava farmers in Umbulsari District is considered to have a negative effect because it is below 0.

9. The influence of the Production variable (Z) on the Income (Y) of Guava farmers in Umbulsari District.

$Deyxz = Z \longrightarrow Y = 0.239$

This shows that the Production variable on Guava farmers' income in Umbulsari District is considered to have quite a strong influence because it is between 0.25 - 0.5.

Direct effect/DE calculation

1. The influence of farming experience (X1) on income (Y) through production (Z) of crystal guava farmers in Umbulsari District. It is known that the direct influence that X1 has on Y is -0.185, while the indirect influence of X1 on Y through Z is the product of the beta value. X1 to Z with the beta value of Z to Y, namely: $0.246 \times 0.239 = 0.059$. From the calculation results above, it shows that farming experience (X1) on income (Y) through production (Z) of crystal guava farmers in Umbulsari District is considered to have a strong influence because it is between 0.5 - 0.75.
2. Effect of Production Costs (X2) on Income (Y) Through Production (Z) of Crystal Guava Farmers in Umbulsari District. It is known that the direct influence that X2 has on Y is 0.201, while the indirect influence of X2 on Y through Z is the product of the beta value. X2 to Z with the beta value of Z to Y, namely: $0.134 \times 0.239 = 0.032$. From the calculations above, it shows that Production Costs (X2) on Income (Y) Through Production (Z) of Crystal Guava Farmers in Umbulsari District is considered to have a weak influence because it is between 0 - 0.25.
3. Effect of selling price (X3) on income (Y) through production (Z) of crystal guava farmers in Umbulsari District. It is known that the direct influence that X3 has on Y is 0.248, while the indirect influence of X3 on Y through Z is the product of the beta value. X3 to Z with the beta value of Z to Y, namely: $0.157 \times 0.239 = 0.037$. From the calculation results above, it shows that the selling price (X3) on income (Y) through production (Z) of crystal guava farmers in Umbulsari District is considered to have a weak influence because it is between 0 - 0.25.
4. The influence of the number of trees (X4) on income (Y) through production (Z) of crystal guava farmers in Umbulsari District, it is known that the direct influence that X4 has on Y is 0.105, while the indirect influence of X4 on Y through Z is the product of the beta value. X4 to Z with the beta value of Z to Y, namely: $-0.199 \times 0.239 = -0.047$. From the calculation results above, it shows that the number of trees (X4) on income (Y) through production (Z) of crystal guava farmers in Umbulsari District is considered to have a negative influence because it is below 0.

Hypothesis testing

According to Ghozali (2018), the partial t test is a testing process to determine the extent of the influence of the independent variable partially on the dependent variable. Based on the regression results, the conclusions from the hypothesis test are as follows:

Table 1. Hypothesis Test Results (t Test)

Variable	*Sig*	t$_{hitung}$	t$_{table}$	Information
X1 to Z	0,014	2,494	1,661	Significant influence
X2 to Z	0,178	1,358	1,661	No significant effect
X3 to Z	0,123	1,556	1,661	No significant effect
X4 toZ	0,047	-2,015	1,661	No significant effect
X1 toY	0,068	-1,850	1,661	No significant effect
X2 to Y	0,040	2,084	1,661	Significant influence
X3 to Y	0,014	2,501	1,661	Significant influence
X4 toY	0,286	1,073	1,661	No significant effect

Sobel Test

Berdasarkan koefisien jalur, maka adapun perhitungan jalur data penelitian ini adalah sebagai berikut :

1. Sobel Test Calculation for Variable X1

   Is known :

   a = 0,385 (Unstandardized value X1 to Z) $\longrightarrow$ a^2 =0,1482
   b = 0,322 (Unstandardized value Z to Y) $\longrightarrow$ b^2 =0,1036
   sa = 0,154 (Standard error valueX1 ke Z) $\longrightarrow$ sa^2 =0,0237
   sb = 0,137 (Standar error valueZ ke Y) $\longrightarrow$ sb^2 =0,0187

   Sab $=\sqrt{(b^2 sa^2 + a^2 sb^2 + sa^2 sb^2}$
   Sab $=\sqrt{(0{,}1036)(0{,}0237) + (0{,}1482)(0{,}0187) + (0{,}0237)(0{,}0187)}$
   Sab $=\sqrt{(0{,}0024) + (0{,}0027) + (0{,}0004)}$
   Sab $=\sqrt{(0{,}0055)}$
   Sab $= 0{,}0741$

   Calculation of indirect effects by comparing t_{count} with t_{table}

   $t = \dfrac{ab}{sab}$
   $t = \dfrac{0{,}385 \times 0{,}322}{0{,}0741}$
   $t = 1{,}673$

   From the calculation above, it can be seen that the calculated t$_{count}$value = 1.673. While the t$_{table}$ value = 1.661, it can be concluded that t$_{count}$> t$_{table}$, meaning that farming experience (X1) influences Crystal Guava Farmers' Income (Y) through Production (Z). It can be interpreted that production can mediate farming experience on the income of crystal guava farmers.

2. Sobel Test Calculation for Variable X2

Is known :

a = 0,148 (Unstandardized value X2 to Z) $\longrightarrow$ a^2 =0,0219
b = 0,322 (Unstandardized value Z to Y) $\longrightarrow$ b^2 =0,1036
sa = 0,109 (Standard error valueX2 to Z) $\longrightarrow$ sa^2 =0,0118
sb = 0,137 (Standard error valueZ to Y) $\longrightarrow$ sb^2 =0,0187

Sab $=\sqrt{(b^2 sa^2 + a^2 sb^2 + sa^2 sb^2}$
Sab $=\sqrt{(0,1036)(0,0118) + (0,0219)\,(0,0187) + (0,0118)(0,0187)}$
Sab $=\sqrt{(0,0012) + (0,0004) + (0,0002)}$
Sab $=\sqrt{(0,0018)}$
Sab $= 0,0424$

Calculation of indirect effects by comparing t_{count} with t_{table}

$t = \dfrac{ab}{sab}$
$t = \dfrac{0,148 \times 0,322}{0,0424}$
$t = 1,123$

From the calculation above, it can be seen that the t_{count} value = 1.123. While the t_{table} value = 1.661, it can be concluded that t_{count}< t_{table}, meaning that Production Costs (X2) have no effect on Crystal Guava Farmers' Income (Y) through Production (Z). This means that production cannot mediate production costs on the income of crystal guava farmers.

3. Sobel Test Calculation for Variable X3

Is known :

a = 0,192 (Unstandardized value X3 to Z) $\longrightarrow$ a^2 =0,0368
b = 0,322 (Unstandardized valueZ to Y) $\longrightarrow$ b^2 =0,1036
sa = 0,124 (Standard error valueX3 to Z) $\longrightarrow$ sa^2 =0,0153
sb = 0,137 (Standard error valueZ to Y) $\longrightarrow$ sb^2 =0,0187

Sab $=\sqrt{(b^2 sa^2 + a^2 sb^2 + sa^2 sb^2}$
Sab $=\sqrt{(0,1036)(0,0153) + (0,0368)\,(0,0187) + (0,0153)(0,0187)}$
Sab $=\sqrt{(0,0015) + (0,0006) + (0,0002)}$
Sab $=\sqrt{(0,0023)}$
Sab $= 0,0479$

Calculation of indirect effects by comparing t_{count} with t_{table}

$t = \dfrac{ab}{sab}$
$t = \dfrac{0,192 \times 0,322}{0,0479}$
$t = 1,290$

From the calculation above, it can be seen that the t_{count} value = 1.290. While the t_{table} value = 1.661, it can be concluded that t_{count}< t_{table}, meaning that the selling price (X3) has no effect on Crystal Guava Farmers' Income (Y) through Production (Z). This means that production cannot mediate the selling price on the income of crystal guava farmers.

4. Sobel Test Calculation for Variable X2

   Is known :

   a = -0,238 (Unstandardized value X4 to Z) $\longrightarrow$ a^2 =0,0566

   b = 0,322 (Unstandardized value Z to Y) $\longrightarrow$ b^2 =0,1036

   sa = 0,118 (Standard error valueX4 to Z) $\longrightarrow$ sa^2 =0,0139

   sb = 0,137 (Standard error valueZ to Y) $\longrightarrow$ sb^2 =0,0187

   $Sab = \sqrt{(b^2 sa^2 + a^2 sb^2 + sa^2 sb^2)}$

   $Sab = \sqrt{(0,1036)(0,0139) + (0,0566)(0,0187) + (0,0139)(0,0187)}$

   $Sab = \sqrt{(0,0014) + (0,0010) + (0,0002)}$

   $Sab = \sqrt{(0,0026)}$

   $Sab = 0,0509$

   Calculation of indirect effects by comparing t_{hitung} with t_{tabel}

   $t = \dfrac{ab}{sab}$

   $t = \dfrac{-0,238 \times 0,322}{0,0509}$

   $t = -1,505$

   From the calculation above, it can be seen that the t_{count} value = -1.505. While the t_{table} value = 1.661, it can be concluded that $t_{count} < t_{tabel}$, meaning that the number of trees (X4) has no effect on Crystal Guava Farmers' Income (Y) through Production (Z). This means that production cannot mediate the number of trees on the income of crystal guava farmers.

INTERPRETATION

1. Effect of farming experience (X1) on production (Z)
   Based on the results of hypothesis testing, it can be seen that the significance value for the influence of farming experience (X1) on production (Z) is 0.014 < 0.05 with a t value of 2.494 > 1.661 so it can be concluded that H1 is accepted which means there is a significant positive influence of farming experience (X1) on Production (Z) of Crystal Guava in Umbulsari District.
2. Effect of production costs (X2) on production (Z)
   Based on the results of hypothesis testing, it can be seen that the significance value for the influence of Production Costs (X2) on Production (Z) is 0.178 > 0.05 with a t value of 1.358 < 1.661 so it can be concluded that H2 is rejected, which means there is no significant positive influence on Production Costs (X2) on Production (Z) of Crystal Guava in Umbulsari District.
3. Effect of selling price (X3) on production (Z)
   Based on the results of hypothesis testing, it can be seen that the significance value for the influence of selling price (X3) on production (Z) is 0.178 > 0.05 with a t value of 1.358 < 1.661 so it can be concluded that H3 is rejected, which means there is no significant positive influence on selling price (X3) on Production (Z) of Crystal Guava in Umbulsari District.
4. Effect of number of trees (X4) on production (Z)

Based on the results of hypothesis testing, it can be seen that the significance value for the effect of the number of trees (X4) on production (Z) is 0.047 < 0.05 with a t value of -2.015 < 1.661 so it can be concluded that H4 is rejected, which means there is no significant positive effect on the number of trees. (X4) on Production (Z) of Crystal Guava in Umbulsari District.

Effect of farming experience (X1) on income (Y)

Based on the results of hypothesis testing, it can be seen that the significance value for the influence of farming experience (X1) on income (Y) is 0.068 > 0.05 with a t value of -1.850 < 1.661 so it can be concluded that H5 is rejected, which means there is no significant positive effect of farming experience. (X1) on Income (Y) of Crystal Guava in Umbulsari District.

5. Effect of production costs (X2) on income (Y)

   Based on the results of hypothesis testing, it can be seen that the significance value for the influence of Production Costs (X2) on Income (Y) is 0.040 < 0.05 with a t value of 2.084 > 1.661 so it can be concluded that H6 is accepted which means there is a significant positive influence on Production Costs (X2) on Income (Y) Crystal guava in Umbulsari District.

6. Effect of selling price (X3) on income (Y)

   Based on the results of hypothesis testing, it can be seen that the significance value for the influence of selling price (X3) on income (Y) is 0.014 < 0.05 with a t value of 2.501 > 1.661 so it can be concluded that H7 is accepted which means there is a significant positive influence on selling price (X3) on Income (Y) Crystal guava in Umbulsari District.

7. Effect of number of trees (X4) on income (Y)

   Based on the results of hypothesis testing, it can be seen that the significance value for the influence of the number of trees (X4) on income (Y) is 0.286 > 0.05 with a t value of 1.073 < 1.661 so it can be concluded that H8 is rejected, which means there is no significant positive influence on the number of trees (X4) on Income (Y) of Crystal Guava in Umbulsari District.

8. Effect of production (Z) on income (Y)

   Based on the results of hypothesis testing, it can be seen that the significance value for the influence of Production (Z) on Income (Y) is 0.021 < 0.05 with a t value of 2.354 > 1.661 so it can be concluded that H9 is accepted which means there is a significant positive influence of Production (Z) on Income (Y) Crystal guava in Umbulsari District.

9. The influence of farming experience (X1) on income (Y) through production (Z)

   Through the results of the Sobel test, it can be seen that the calculated t value = 1.673. While the t table value = 1.661, it can be concluded that t_count > t_tabel, meaning that farming experience (X1) influences Crystal Guava Farmers' Income (Y) through Production (Z). This means that production can mediate farming experience on the income of crystal guava farmers.

10. Effect of production costs (X2) on income (Y) through production (Z)

    Through the results of the Sobel test, it can be seen that the calculated t value = 1.123. While the t table value = 1.661, it can be concluded that t_count < t_tabel, meaning that Production Costs (X2) have no effect on Crystal Guava Farmers' Income (Y) through

Production (Z). This means that production cannot mediate production costs on the income of crystal guava farmers.

11. Effect of Selling Price (X3) on income (Y) Through Production (Z)

    Through the results of the Sobel test, it can be seen that the calculated t value = 1.290. While the ttable value = 1.661, it can be concluded that t_count < t_tabel, meaning that the selling price (X3) has no effect on Crystal Guava Farmers' Income (Y) through Production (Z). This means that production cannot mediate the selling price on the income of crystal guava farmers.

12. Effect of number of trees (X4) on income (Y) through production (Z)

    In the calculation above, it can be seen that the t value = -1.505 for the t table value = 1.661, so it can be concluded that t_count < t_tabel, meaning that the number of trees (X4) has no effect on Crystal Guava Farmers' Income (Y) through Production (Z). This means that production cannot mediate the number of trees on the income of crystal guava farmers.

CONCLUSION

In the research entitled "The Influence of Farming Experience, production costs, selling prices, and number of trees through Production as an intervening variable on the income of crystal guava farmers in Umbulari District, Jember Regency" it can be concluded that the farming experience variable directly has a significant effect on the production variable, while the variable Production costs, selling prices, and number of trees do not have a significant effect on production variables. And directly the variables of production costs, selling prices and production have a significant effect on the income variable, while the variables of farming experience and number of trees do not have a significant effect on the income variable. For indirect testing, using the Sobel test calculator, it was concluded that the farming experience variable through the production variable had a significant effect on the income variable of crystal guava farmers in Umbulsari District, Jember Regency.

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