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The Influence Of Technology, Labor And Farming Experience On The Productivity Of Rice Farmer In Buntu Awo Village, District North Walenrang Luwu District

Muh Ismatullah[1], Indra Kusdarianto[2], Ahmad Suardi[3]

[1]Management, University of Muhammadiyah Palopo, 91922, Indonesia
[2]Management, University of Muhammadiyah Palopo, 91922, Indonesia
[3]Management, University of Muhammadiyah Palopo, 91922, Indonesia

Corresponding Author Email: aanismatullah22@gmail.com

Abstract
Study This aim For know influence technology , energy work and experience to productivity farmers in Buntu Awo Village, District North Walenrang Regency Luwu , has 14 groups farmer with wide average land area each group farmer amounting to 39.80 Ha. Sample population used in the research This as many as 49 people. Collection method using purposive sampling and with spread questionnaire . For know the influence of the independent variable on variable dependent , hypothesis test using IBM SPSS with analysis multiple linear regression , t test (partial), and f test (simultaneous). Result of study This in a way partial (t test) shows that variable technology influential in a way significant to variable productivity farmer , variable power Work influential in a way significant on productivity variables farmers , and variables experience farming influential in a way significant to variable productivity farmer . By simultaneous (f test) shows that variable technology , energy work and experience influential in a way significant to productivity farmer .

Keywords : Technology; Labor; Farming Experience and Productivity Farmer;

1. Introduction

A country's economic growth can be seen from the success of its agricultural industry. The industry's need for production materials is obtained from agriculture, so that agricultural products are the basis for industrial development. Currently, agriculture is an important element in supporting food security. [1] stated that the agricultural sector is used as a strategy in growing the country's economy, although it has a small role, but it has an influence on the prosperity of society, especially in terms of food. Starting in 2007, this sector was able to increase state income, therefore it needed to be developed [2] [3].

Agricultural development is a process that continuously optimizes the benefits of natural resources and human resources by harmonizing human activities according to the capabilities of available natural resource. Several reasons underlying the importance of agriculture in Indonesia; 1). Large and varied resources, 2). The income that contributes to the country is quite large, 3). The average population depends on the farming sector for their livelihood, 4). The main sector of Indonesia's economic growth [4].

In the agricultural sector, labor is included in the agricultural production element. Workers are defined as individuals who have worked or are currently working or who are still trying to get a job. This number is decreasing in the agricultural sector, because today's children prefer to work in the office sector [5].

Use of technology in the form of tools new advanced like machine harvester paddy automatic , tool for plowing fields like machine Tractors are an important means of increasing production output. Labor productivity is an important determinant of excellence in farming, this shows superiority in labor productivity. Human factors such as work experience and skills, external factors such as bad weather and management factors such as inadequate equipment and working conditions are factors that classify productivity [3].

Apart from labor and the use of technology in the agricultural sector. Experience can be very effective and efficient for farmer workers, because they have been trained in making the right decisions if things don't go as desired. Farmer attributes, especially work experience, have a significant influence on farmer productivity [4].

Problems in research This that is is technology , energy work and experience farming influential to productivity farmer rice in Buntu Awo Village. Study This aim For influence use technology to change social economy societya farmer rice , necessities power work used , and how much experience farming farmer rice in Buntu Awo Village. Based on the explanation above, researchers are interested in conducting research with the title The Influence of Technology , Labor and Farming Experience on the Productivity of Rice Farmers in Buntu Awo Village, District. North Walenrang, Luwu Regency.

Theoretical basis

a. Labor

One important aspect in supporting production is labor. Labor is an important factor in determining the success of farmers in carrying out their farming business. (Larasati, 2012). In the world of agriculture labor can come from within the family or not from the family, which includes male labor, female labor, child labor and livestock labor and machine labor [6]. In previous research, it was found that female workers generally work 29 hours per week and men generally work 35 hours per week. Labor in the family has great potential because it is the basis for consideration in alternative agricultural labor [7].

b. Technology

The global development of technology has had a positive impact on the agricultural sector, which has become a forum for technology companies competing to create agricultural products such as sophisticated machines that make it easier for farmers to manage their agricultural land. The existence of technology in the agricultural sector provides changes to life in rural areas. However, in some areas agricultural technology cannot yet be implemented or used in its entirety , there are factors that must be taken into consideration, especially social factors, natural conditions, skilled workers in operating equipment, and the lack of public knowledge. about agricultural technology innovation. Previous research found that gaps can occur if the owner of agricultural technology machines or tools are not used wisely, and are not adapted to the characteristics of farmers, so that they have a negative impact and can even cause losses for farmers. [8]

c. Farming Experience

The experience that farmers gain in working on rice fields has a positive and significant impact on the productivity of farmers' labor. With the amount of experience that farmers have, they will produce harvest results that meet expectations. Previous research shows that, if experience Work experience enhancement so in a way No direct productivity will too experience increase [3].

Framework Think

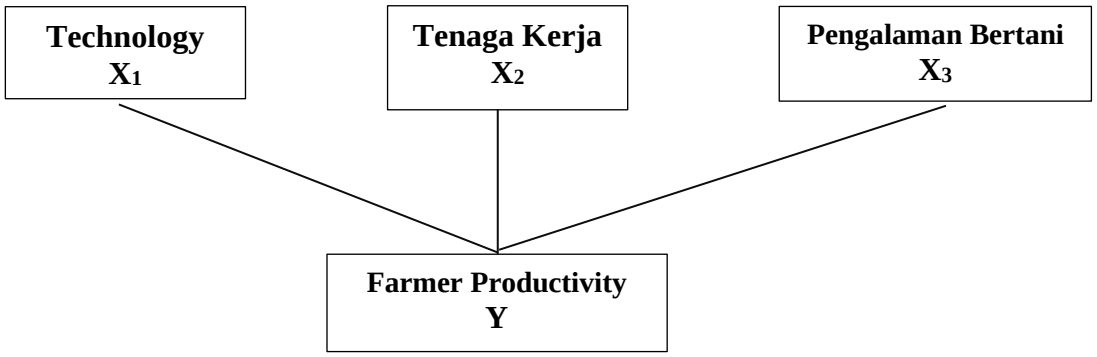

Figure 1.1. Shellfish think

Hypothesis Study

H 1 : There is influence technology , against productivity farmers in Buntu Awo Village.

H 2 : There is influence power work , towards productivity farmers in Buntu Awo Village.

H 3 : There is influence experience farming , against productivity farmers in Buntu Awo Village.

H 4 : There is influence technology , energy work and experience farming , against productivity farmers in Buntu Awo Village.

Research methods

Study done with use approach quantitative . Study This held towards farmers in Buntu Awo Village , District North Walenrang Regency Luwu, South Sulawesi. Samples obtained as many as 49 respondents . Tech Data collection uses purposive sampling and distribution questionnaire to farmers . Calculated data analysis using IBM SPSS with test connection between variable.

Data analysis

Data analysis techniques used in research This are : 1) Instrument Test includes validity and reliability tests , 2) Analysis Multiple linear regression includes t test and f test.

2. RESULTS AND DISCUSSION

2.1 Result

Descriptive Analysis

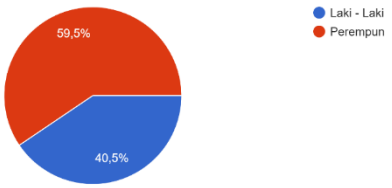

Figure 2.1 Characteristics respondents based on type sex

Based on the results of descriptive analysis, the data obtained dominant Woman amounted to 59.5% whereas farmer man by 40.5%.

Instrument Test

1) Validity test

Validity test used to be able to know how valid an instrument is, if instrument declared valid, then the instrument can used For study . If r table more big from r count (with a significance level of 5% or 0.005)instrument the stated invalid . Condition instrument it is valid if r counts more big from r table .

Validity For Variable Technology			
Items	**R Count**	**R Table**	**Information**
Technology 1	**0.847**	0.316	Valid
Technology 2	**0.866**	0.316	Valid
Technology 3	**0.906**	0.316	Valid
Technology 4	**0.892**	0.316	Valid
Technology 5	**0.875**	0.316	Valid
Validity For Labor Variables _			
Items	**R Count**	**R Table**	**Information**
Labor 1	**0.900**	0.316	Valid
Labor 2	**0.932**	0.316	Valid
Labor 3	**0.930**	0.316	Valid
Labor 4	**0.930**	0.316	Valid
Labor 5	**0.937**	0.316	Valid
Validity For Variable Experience			
Items	**R Count**	**R Table**	**Information**
Experience 1	**0.871**	0.316	Valid

Experience 2	**0.931**	0.316	Valid
Experience 3	**0.932**	0.316	Valid
Experience 4	**0.919**	0.316	Valid
Experience 5	**0.912**	0.316	Valid
Validity For Variable Productivity Farmer			
Items	**R Count**	**R Table**	**Information**
Productivity Farmer 1	**1,000**	0.316	Valid
Productivity Farmer 2	**0.913**	0.316	Valid
Productivity Farmer 3	**0.862**	0.316	Valid
Productivity Farmer 4	**0.894**	0.316	Valid
Productivity Farmer 5	**0.792**	0.316	Valid

Table 1.1 Validity Test

According to results testing in table 1.1, validity of technology instruments , energy work , experience, and productivity farmer show that all instruments were declared valid. This matter show that calculated r value more big from r table (with level significant 5% or 0.005 = 0.316).

2) Reliability Test

Reliability test used For evaluate reliability an instrument. Calculation reliability done using SPSS. Something instrument study can said reliable if Cronbach's Alpha value > 0.60 (Ghozali, 2016).

Variable	Cronbach's Alpha	Information
Technology	**0.923**	Reliable
Labor	**0.958**	Reliable
Experience	**0.949**	Reliable
Productivity Farmer	**0.802**	Reliable

Table 1.2. Reliability Test

Reliability test in table 1.2 shows that all mark Cronbach's alpha for each variable is sufficient big ,that is on from 0.60 . This value show that all measuring ideas _ every variable in questionnaire reliability worthy For used as size .

Uji regresi laagi

Analysis of Multiple Linear Regression Equations

Analysis multiple linear regression used For checking hypothesis about How variable technology , energy work, and experience in a way Partial influence variable productivity farmer.

1) Partial test (t test)

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.641	.160		4.004	.000
	TOTAL_X1	.391	.024	.466	16.430	.000
	TOTAL_X2	.100	.015	.138	6.550	.000
	TOTAL_X3	.380	,025	,463	15,104	,000
a. Dependent Variable: TOTAL						

Table 2.1. Multiple Linear Regression Test Results

Based on table 2.1 then obtained equality multiple linear regression in study This that is :

Y = 0.641 – 0.391 X1+ O.100 X2 + 0.380 X3 +e

- If t count > t table then H0 is rejected and Ha is accepted, meaning that the independent variable has a significant effect on the dependent variable.

- If t count < t table then H0 is accepted and Ha is rejected, meaning that there is no significant effect between the independent variable and the dependent variable.

Based on the results above, it can be concluded:

a) Analysis results variable X1 (technology) t value 16,430 > t table 1,692 and value significant 0.000 > 0.05. This matter means variable technology (X1) has an effect positive and significant to productivity farmer (Y).

b) Analysis results variable X 2 (power work) calculated t value 6,550 > t table 1,692 and value significant 0.000 > 0.05. This matter means variable power work (X2) has an effect positive and significant to productivity farmer (Y).

c) Analysis results variable X3 (experience) calculated t value 15.104 > t table 1.692 and value significant 0.000 < 0.05. This matter means variable experience (X3) has an effect positive and significant to variable productivity farmer (Y).

2) Simultaneous Test (f)

Simultaneous test (f) is used For test is variable free in study This have influence simultaneous or together to variable bound with compare f value .

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	453.902	3	151.301	7593.492	.000[b]
	Residual	.897	45	.020		
	Total	454.799	48			
a. Dependent Variable: Y						
b. Predictors: (Constant), X1,X2,X3						

Table 2.2. Simultaneous Test (f)

Testing with using the f test with criteria taking decision is :

a) If value significant F < 0.05 then H0 is rejected and H1 is accepted . It means that every variable independent or free own significant impact to variable dependent or bound .
b) If value mark is significant F > 0.05 then H0 is accepted and H1 is rejected . It means that every variable independent or free No own significant impact to variable dependent or bound

From the table above can concluded that , the calculated f value 7593.492 > f table 3.28 and value significant 0.000 < 0.05. This matter means H0 is rejected and H1 is accepted . So that concluded that technology X1 , labor X2, experience X3 respectively simultaneous influential positive and significant to productivity farmer .

3. Discussion

Based on results from description and discussion results research , can concluded that study This :

Influence Tenology To Productivity Farmer

The results of the analysis of variable This means that the technology variable (X1) has a positive and significant effect on farmer productivity (Y). These results are supported study (Ali 2017) find that use technology can increase productivity farmers and protect plant paddy with Good so that can concluded if , technology influential in a way significant to productivity farmers in Buntu Awo Village, District North Walenrang Regency Luwu.

Labor Influence To Productivity Farmer

H analysis results variable X 2 (power work) calculated t value 6,550 > t table 1,692 and value significant 0.000 > 0.05. This matter means variable power work (X2) has an effect positive and significant to productivity farmer (Y). This result support research [9] who found that power work in the sector agriculture own influence positive to productivity farmer in reduce level poverty in Indonesia, so can concluded that power Work influential in a way significant to productivity farmers in Buntu Awo Village, District North Walenrang Regency Luwu.

Influence Farming Experience Against Productivity Farmer

Analysis results variable X3 (experience) calculated t value 15.104 > t table 1.692 and value significant 0.000 < 0.05. This matter means variable experience (X3) has an effect positive and significant to variable productivity farmer (Y). This result in line with study (Sugiantara and Utama 2019) that every enhancement experience work you have so productivity will increase . This matter prove that experience Work one way with productivity , if experience Work experience enhancement so in a way No direct productivity will too experience

enhancement. [10] With thereby can concluded that experience farming influential in a way significant to productivity farmers in Buntu Awo Village, District North Walenrang Regency Luwu . The Influence of the Work Environment on Employee Performance.

4. Conclusion

Technology , energy work and experience farming in a way simultaneous influential to productivity farmers in Buntu Awo Village. Technology , energy work and experience farming in a way Partial influential positive and significant to productivity farmers in Buntu Awo Village.

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