

Analysis of the Effect of the People's Business Credit (KUR) Program on the Income of Rice Paddy Farmers in South Konawe Regency

Alfitrah La Hini¹, Azhar Bafadal², Yusna Indarsyih³

¹ Student of Agribusiness Department, Faculty of Agriculture, Halu Oleo University, Kendari

^{2,3} Lecturer at Faculty of Agriculture, Halu Oleo University, Kendari, Indonesia

Corresponding Author: alfitrahlahini@gmail.com

Abstract

This research was motivated by challenges in the development of agricultural businesses due to limited capital and difficulties in accessing funding sources. To strengthen the capital capacity of agricultural businesses, the government launched the People's Business Credit (KUR) program with low-interest rates aimed at farmers. This study aims to: (1) determine the income level of rice paddy farmers in Konawe Selatan Regency, and (2) analyze the impact of the KUR program on the income of rice paddy farmers in Konawe Selatan Regency. The population of this study consisted of all rice paddy farmers in Ranomeeto and Ranomeeto Barat Districts who utilized KUR loans. The sampling technique used was non-probability sampling with a purposive sampling approach, involving 60 farmers who met the criteria. The data analysis was conducted using income analysis and double-logarithm regression analysis with F-test and t-test. The results showed that the average income of rice paddy farming was IDR 16,697,234 per harvest. The variables of KUR interest rates and the amount of KUR loans were positively correlated but did not have a significant impact on the income of rice paddy farmers.

Keywords: Rice paddy farming, income, People's Business Credit.

INTRODUCTION

The agricultural sector has traditionally played an important role in the Indonesian economy. It serves as a major source of food, a driver of economic growth, and a provider of raw materials for industry (Goenadi, 2005). In the Indonesian economy, the agricultural sector contributes around 29% of the Gross Domestic Product (GDP) and has a high demand, both in

domestic and international markets (Hulopi, 2018). One of the strategic roles of this sector is in the development of food security. Among the various food commodities, rice is a very important commodity because rice, the processed product of rice, is the staple food for the majority of the Indonesian population. Therefore, rice plays a vital role in the economy and people's lives (Hasibuan, 2022). One of the important sub-sectors in South Konawe District, Southeast Sulawesi, is wet-rice farming. In addition to providing foodstuffs, this sub-sector also creates jobs for the local community. Thus, wet-rice farming contributes to increasing people's income and welfare (Saleh, 2022).

Table1 Gross Regional Domestic Product by Business Field in South Konawe Regency in 2021-2023

No.	Sector	GRDP by Business Field at Constant Prices (Million Rupiah)		
		2021	2022	2023
1.	Agriculture, Forestry and Fisheries	3.558.555,77	3.759.366,67	4.240.782,66
2.	Mining	2.783.419,40	3.063.228,03	3.429.930,22
3.	Processing Industry	327.039,76	339.707,09	255.835,55
4.	More	5.985.669,71	7.374.199,64	8.525.920,10

Source: Central Bureau of Statistics Kab. Konawe Selatan, 2024

The table above shows that the agriculture, forestry, and fisheries sectors are the largest contributors to the GRDP of South Konawe Regency, with an increasing trend every year. Meanwhile, the processing industry sector experienced a decline in 2023 compared to the previous year.

Table2 Rice Production in Southeast Sulawesi by Regency/City, 2019 and 2020 (Thousand Tons)

No.	Regional	Rice Production in Southeast Sulawesi (Thousand Tons)	
		2019	2020
1.	Konawe	177.445	198.280
2.	East Kolaka	87.867	88.910
3.	South Konawe	82.801	75.277

4.	Bombana	70.460	76.301
5	More	101.135	94.006

Source: Southeast Sulawesi Central Bureau of Statistics, 2021

Rice production in South Konawe in 2020 decreased by 7,524 tons compared to the previous year. This is inversely proportional to several other regions which actually show an increase in production. This decrease indicates a problem in the management of paddy rice farming in South Konawe, especially in sub-districts such as Ranomeeto and Ranomeeto Barat.

Efforts to increase the productivity of paddy rice require the provision of production inputs such as agricultural machinery, seeds, fertilizers, and pesticides. However, the availability of these inputs is still limited and the prices are quite expensive (Susilo, 2022). To overcome the capital problem, the government launched the Kredit Usaha Rakyat (KUR) program in 2007. This program aims to provide capital loans for MSMEs that are eligible but do not have additional collateral or meet *bankable* criteria (Coordinating Ministry for Economic Affairs, 2020).

Table 3 Data on KUR Fund Disbursement in Southeast Sulawesi in 2023

No.	Regional	KUR funds (Rp)	Debtors (people)
1.	Kolaka district	2.630.000.000	4.838
2.	Muna district	2.070.000.000	4.790
3.	Kab. Konawe	2.010.000.000	3.653
4	Kendari City	1.840.000.000	3.370
5.	Kab. Konawe Selatan	1.770.000.000	4.017

Source: Regional Office of DGTb Southeast Sulawesi Province, 2023

The KUR program continues to be developed to support the progress of wet-rice farming in Kabupaten Konawe Selatan. Therefore, it is important to examine the effect of the KUR program on the income of wet-rice farming in the area.

METHOD

The population in this study were all rice paddy farmers in Ranomeeto and Ranomeeto Barat sub-districts, which were 226 people (BPP Ranomeeto and Ranomeeto Barat sub-districts, 2023). Sampling was conducted using *non-probability sampling* method through *purposive* sampling method with the result of 60 respondents. Data collection techniques were conducted by interview and literature study. Data analysis used in this study is to find out the first problem,



namely how much is the income of paddy rice business in South Konawe Regency, researchers used the formula of total cost, revenue and income (Herdiyandi, 2016).

1. The cost of paddy rice is calculated using the formula:

$$TC = TFC + TVC$$

Description:

TC = Total Cost

TFC = Total Fixed Cost

TVC = Total Variable Cost

2. Paddy rice revenue is calculated using the formula:

$$TR = P_y \cdot Y$$

Description:

TR = Total Revenue (Rp)

P_y = Product Price (Rp)

Y = Total Production (Rp)

3. Paddy rice income is calculated using the formula:

$$pd = TR - TC$$

Description:

Pd = Profit (Rp)

TR = Total Revenue (Rp)

TC = Total Cost (Rp)

To analyze the second problem regarding the effect of the people's business credit program (KUR) on the income of paddy rice farming in South Konawe Regency, quantitative analysis techniques are used, namely using the double natural logarithm regression analysis method. (Khakim, 2013). The double natural logarithm regression equation is mathematically expressed as follows:

$$\ln Y = \ln \beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \beta_3 \ln X_3 + \beta_4 \ln X_4 + e$$

Description:

$\ln Y$ = Paddy rice farming income (Rp/harvest)

$\ln X_1$ = Business Cost (Rp/harvest)

$\ln X_2$ = KUR Interest Rate (%)

$\ln X_3$ = KUR loan amount (Rp/harvest)

$\ln X_4$ = Land area (Ha)

β_0 = intercept

$\beta_1, \beta_2, \beta_3, \beta_4$ = Regression Coefficient



Double natural logarithm regression analysis is a linear relationship between the independent variable (X) and the dependent variable (Y). The results used in this study are double natural logarithm regression using the SPSS program. Multiple linear regression analysis was used to calculate the effect of business costs (X1), KUR interest rates (X2), KUR loan amounts (X3) and land area (X4) on the income of wet-rice farming (Y). The double natural logarithm model was estimated using the *Ordinary Least Squares* (OLS) estimation method. The computer *software* used was IBM SPSS Statistics version 25.

RESULTS AND DISCUSSION

People's Business Credit (KUR)

Kredit Usaha Rakyat (KUR) is a form of capital assistance with low interest rates for farmers. In this study, the form of assistance from KUR is the amount of the loan and the KUR interest rate, which can be seen in the following table;

Table 4 People's business credit (KUR) loan funds of wet-rice farmers in Ranomeeto and Ranomeeto Barat sub-districts

Variables	Description	Soul (Person)	Percentage (%)
KUR Loan Fund	1 million - 10 million	43	71,67
	11 million - 20 million	9	15
	> 21 million	8	13,33
KUR Interest Rate	< 0,5%	54	90
	0,6% - 0,10%	5	8
	> 0,11%	1	2
Total		60	100

The majority of farmers (71.67%) borrowed funds in the range of IDR 1-10 million. Installment payments are made every harvest season, providing flexibility in repaying the loan according to the farmer's income cycle. As for interest rates, 90% of farmers pay an interest rate of less than 0.5%, which is very helpful in easing the financial burden on farmers.

Income of Rice Paddy Farmers

The income referred to in this study is how much income is generated by wet-rice farmers. To measure income, researchers used indicators of production, production costs, revenue, and income, which can be seen in the following table;

Table 5 Total Production of Rice Paddy Farmers Using People's Business Credit (KUR) in Ranomeeto and Ranomeeto Barat Sub-districts in 2023

Variables	Description	Yield (Kg/harvest)
Production	Total	415.000
	Average	6.917

Total dry grain production in Ranomeeto and Ranomeeto Barat sub-districts reached 415,000 kg. This production amount is an important factor affecting farmers' income, where the greater the production, the greater the potential income. The average dry grain production of 6,917 kg per harvest reflects the overall productivity of farmers. This productivity is influenced by various factors, such as weather conditions, cultivation techniques, and the availability of supporting facilities. This data is the basis for evaluating efficiency and developing policies that can increase agricultural yields and farmers' income in the future.

Table 6 Total Fixed Costs and Variable Costs of Rice Paddy Farmers in Ranomeeto and Ranomeeto Barat Sub-districts in 2023

No.	Description	Value (Rp/Harvest)	
		Total	Average
1.	Fixed Cost	719.017.167	11.983.619
2.	Variable Cost	331.063.800	5.517.730
Total		1.050.080.967	17.501.349

Fixed costs totaled Rp719,017,167 with an average of Rp11,983,619 per harvest, while variable costs were Rp331,063,800 with an average of Rp5,517,730 per harvest. Overall, total production costs were Rp1,050,080,967 with an average of Rp17,501,349 per harvest. This data provides an important picture of farm efficiency and profitability, as well as a reference for farmers in managing resources to increase profits and develop more effective production strategies.

Table7 Total Revenue and Income of Rice Paddy Farmers Using People's Business Credit (KUR) in Ranomeeto and Ranomeeto Barat Subdistricts in 2023

Variables	Description	Revenue (Rp/harvest)
Reception	Total	2.048.675.000
	Average	34.144.583

Revenue	Total	946.846.533
	Average	16.081.822

Based on Table 7, the total revenue and income of wet-rice farmers who use KUR in Ranomeeto and Ranomeeto Barat sub-districts in 2023 can be explained as follows;

1. Total receipts amounted to Rp2,048,675,000 with an average of Rp34,144,583 per harvest. Adequate revenues enable farmers to cover production costs, repay KUR loans, and earn profits to improve their welfare. This shows the positive contribution of the KUR program in increasing farmers' financial capacity.
2. Total farmer income reached Rp946,846,533 with an average of Rp16,081,822 per harvest. This income shows the positive results of access to KUR funding, which helped farmers increase production and income. Compared to the average income of farmers in other areas, such as in Limboto sub-district, Gorontalo district (Rp19,671,376 per harvest), the income in Ranomeeto and Ranomeeto Barat is still relatively lower. Efforts to increase productivity and production cost efficiency need to be continued to improve farmers' welfare and farm sustainability.

Analysis of the Effect of Business Costs, KUR Interest Rate, KUR Loan Amount and Land Area on the Income of Rice Paddy Farmers

In this study, researchers used an analysis of the effect of each variable using inferential tests with the help of the SPSS application. For more details, it can be seen in the following tables;

Table 8 Multicollinearity Test Results

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	26.294	3.857		6.817	.000		
	Ln_X1	.815	.236	.619	3.454	.001	.180	5.555
	Ln_X2	.087	.180	.038	.482	.631	.911	1.098
	Ln_X3	.179	.127	.121	1.409	.165	.777	1.286
	Ln_X4	2.007	.272	1.297	7.391	.000	.188	5.327

- Business Costs (Ln_X1): Tolerance = 0.180; VIF = 5.555.

- KUR Interest Rate (Ln_X2): Tolerance = 0.911; VIF = 1.098.
- Number of KUR Loans (Ln_X3): Tolerance = 0.777; VIF = 1.286.
- Land Area (Ln_X4): Tolerance = 0.188; VIF = 5.327.

Since all tolerance values are more than 0.10 and VIF values are less than 10, it can be concluded that there is no multicollinearity among the independent variables. Thus, the regression model used can be considered stable and accurate.

Table 9 Results of the Coefficient of Determination

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1.	.826 ^a	.682	.659	.53107

The R² value of 0.682 indicates that 68.2% of the variation in the income of wet-rice farmers can be explained by business costs, KUR interest rates, KUR loan amounts, and land size. The remaining 31.8% is influenced by other variables outside the model.

Table 10 F Test Results

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.293	4	8.323	29.512	.000 ^b
	Residuals	15.512	55	.282		
	Total	48.805	59			

The calculated F value is 29.512, while the F table value is 2.54. Thus, F count (29.512) > F table (2.54) and significance of 0.000 (<0.05). This shows that simultaneously, business costs, KUR interest rates, KUR loan amounts, and land area had a significant effect on the income of wet-rice farmers.

Table11 t-test results

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	26.294	3.857		6.817	.000
	Ln_X1	.815	.236	.619	3.454	.001

Ln_X2	.087	.180	.038	.482	.631
Ln_X3	.179	.127	.121	1.409	.165
Ln_X4	2.007	.272	1.297	7.391	.000

Based on Table 11:

1. Business Costs (Ln_X1): The significance value is 0.001 (<0.05), indicating that business costs have a significant effect on revenue.
2. KUR Interest Rate (Ln_X2): The significance value is 0.631 (> 0.05), indicating that the KUR interest rate has no significant effect on income.
3. Number of KUR Loans (Ln_X3): The significance value is 0.165 (> 0.05), indicating that the amount of KUR loans has no significant effect on income.
4. Land Area (Ln_X4): The significance value is 0.000 (<0.05), indicating that land area has a significant effect on income.

From the results of the t-test, it can be concluded that the variables of business costs and land area have a significant influence on the income of wet-rice farmers, while the variables of KUR interest rates and KUR loan amounts do not have a significant influence.

Estimation Result

Double natural logarithm regression was used to analyze the relationship between the dependent variable $\ln Y$, namely income, and several independent variables, namely business costs ($\ln X_1$), KUR interest rates ($\ln X_2$), KUR loan amounts ($\ln X_3$), and land area ($\ln X_4$). The results of the double natural logarithm regression calculation are shown in Table 11.

The multiple linear regression equation with natural logarithm transformation is formulated as follows:

$$\ln Y = \ln \beta_0 + \beta_1 \ln X_1 + \beta_2 \ln X_2 + \beta_3 \ln X_3 + \beta_4 \ln X_4 + e$$

Model estimation results:

$$\ln Y = 26.294 + 0.815X_1 + 0.087X_2 + 0.179X_3 + 2.007X_4$$

Based on the analysis results:

1. Business expenses

Business cost variable has a regression coefficient of 0.815 with t count of 3.454 and a significance level of 0.001, while the t table value is 1.673. Because t count (3.454) > t table (1.673) and the significance level (0.001) < 0.05, the cost of business has a real and positive influence on the income of wet-rice farmers. The regression coefficient of 0.815 indicates that



every 1% increase in business costs will increase farmers' income by 0.815%, assuming other variables remain constant. In other words, higher business costs contribute to an increase in income, while low costs will reduce income.

Business costs include spending on seeds, fertilizers, pesticides and farming aids, all of which have an impact on increasing yields. Interviews with farmers indicate that spending more on variable costs results in better quality grain, thus increasing the selling price of the grain and farmers' income.

These results are consistent with the research of Wardani and Yani (2022) which states that business costs have a positive and significant influence on the income of wet-rice farmers. Research by Atpriani et al. (2018) also supports these findings, showing that production costs contribute to increasing yields and incomes of field rice farmers.

2. KUR Interest Rate

The KUR interest rate variable has a regression coefficient of 0.087 with a t-statistic of 0.482 and a significance level of 0.631, while the t-table value is 1.673. Because t count (0.482) < t table (1.673) and the significance level (0.631) > 0.05, the KUR interest rate does not significantly affect the income of wet-rice farmers.

Despite KUR's low interest rates, farmers often face obstacles in accessing and optimally utilizing credit. Interviews show that many farmers lack understanding of capital management, so the funds obtained do not significantly affect income. This is in line with research by Halid et al. (2014), which stated that loan interest rates are not significant to micro business income because entrepreneurs focus more on access to credit than the interest rate.

3. Total KUR Loans

The KUR loan amount variable has a regression coefficient of 0.179 with a t-statistic of 1.409 and a significance level of 0.165, while the t-table value is 1.673. Because t count (1.409) < t table (1.673) and the significance level (0.165) > 0.05, the number of KUR loans does not significantly affect the income of wet-rice farmers.

Some farmers used the KUR loan funds for other needs such as raising livestock, renovating their houses, or buying private vehicles, so the funds were not fully used to increase the productivity of wet-rice farming. Research by Rahmawati (2023) and Hafsa et al. (2019) support these findings, stating that the use of KUR funds that are not focused on farming causes the loan to have no real effect on farmers' income.

4. Land Area

The land area variable has a regression coefficient value of 2.007 with t count of 7.391 and a significance level of 0.000, while the t table value is 1.673. Because t count (7.391) > t



table (1.673) and the significance level (0.000) < 0.05, the land area has a real and positive influence on the income of wet-rice farmers.

The regression coefficient of 2.007 indicates that every 1% increase in land area will increase farmers' income by 2.007%, assuming other variables remain constant. The more land area owned, the greater the potential yield and income of farmers. Research by Rahmawati (2023) and Andrias et al. (2017) support these findings, showing that land area has a significant influence on the production and income of wet-rice farmers.

From the results of the double natural logarithm regression analysis, business costs and land area have a significant influence on the income of wet-rice farmers, while the KUR interest rate and KUR loan amount do not have a significant influence. These findings provide important insights in policy making to increase farmers' income, such as efficient management of business costs and optimizing the use of land area.

CONCLUSION

Based on the results of the discussion, the conclusion of this study is that the average income of wet-rice farmers who use funds from the People's Business Credit (KUR) program in Ranomeeto Sub-district and Ranomeeto Barat Sub-district reaches Rp16,081,822 per harvest. This figure is relatively low when compared to the average income of wet-rice farmers in other regions.

The variables KUR interest rate and KUR loan amount have a positive correlation, but do not have a significant influence on the income of wet-rice farmers in Kecamatan Ranomeeto and Kecamatan Ranomeeto Barat.

REFERENCE

- Abidin Z. 2018. Identifikasi Komoditas Unggulan Wilayah Dalam Perspektif Pertanian Berkelanjutan di Sulawesi Tenggara. *Jurnal Mega Aktiva*. 7(2):92-105.
- Budiman ND., Santu L. 2024. Kajian Strategi dan Kebijakan Pemerintah Indonesia Dalam Mencapai Target Swasembada Beras. *Jurnal Pertanian Cemara*. 21(2):125-136.
- Fikriyani M., Mussadun. 2014. Evaluasi Program Rehabilitasi Mangrove Di Pesisir Desa Bedono Kecamatan Sayung Kabupaten Demak. *Jurnal Ruang*. 2(1):381-390.
- Handayana AW., Fadwiwati AY., Muhammad H. 2017. Faktor–Faktor Yang Mempengaruhi Respon Petani Terhadap Penyediaan Benih UPBS BPTP Gorontalo. *Agroteksos*. 26(1):1-18.
- Ismanto H., Widiastuti A., Muharam H., Pangestuti IRD., Rofiq F. 2019. *Perbankan dan literasi*

- keuangan. Deepublish.
- LSP-IBI. 2014. *Mengelola Kredit Secara Sehat: Modul Sertifikasi Bidang Kredit Tingkat I Untuk Kredit Officer*. Jakarta. Gramedia Pustaka Utama.
- Nurjannah., Nurhayati. 2017. Pengaruh Penyaluran Kredit Investasi, Kredit Modal Kerja dan Kredit Konsumtif Terhadap Pertumbuhan Ekonomi Indonesia. *Jurnal Samudra Ekonomi Dan Bisnis*. 8(1):590-601.
- Purba FN. 2018. *Mekanisme Bank Garansi Ib Pada Pt. Bank Aceh Syrai'ah Kc S. Parman Medan* (Doctoral dissertation, Universitas Islam Negeri Sumatera Utara).
- Puryanto., Helmidani N. 2019. Implementasi Kebijakan Kredit Usaha Rakyat Dalam Mengembangkan Usaha, Mikro, Kecil Dan Menengah di Kecamatan Koto Baru Kabupaten Dharmasraya. *Ensiklopedia of Journal*. 1(4):71-77.
- Sujarweni VW., Utami LR. 2015. Analisis dampak pembiayaan dana bergulir KUR (Kredit Usaha Rakyat) terhadap kinerja UMKM (Studi kasus di Daerah Istimewa Yogyakarta). *Jurnal Bisnis dan Ekonomi*. 22(1).
- Wahyuningsih S. 2007. Pengembangan Agribisnis Ditinjau Dari Kelembagaan. *Jurnal ilmu – ilmu pertanian*. 3(1):9-20.
- Wardani J. Yani F. 2022. Pengaruh Biaya Produksi Terhadap Pendapatan Petani Padi Sawah (*Oryza sativa* L) di Kecamatan Gebang Kabupaten Langkat. *Jurnal Agro Nusantara*. 2(2):116-123.
- Yuliyani R. 2021. Implementasi Bauran Pemasaran Pada Loyalitas Pelanggan (Studi Kasus Pelanggan Jamane Kopi di Pulo Gebang Jakarta Timur). *Doctoral dissertation, Sekolah Tinggi Ilmu Ekonomi Indonesia Jakarta*.
- Zainal AG., Wijaya T., Oktarina S., Wahyono E., Pairulsyah. 2012. Kredit Usaha Rakyat (KUR) Regulation and Communication Factors towards Farmer Independence. *Nyimak Journal of Communication*. 5(1):15-37.
- Zano BR., Santoso T. 2019. Analisis Pengaruh Kualitas Produk, Harga dan Iklan Terhadap Keputusan Pembelian Sepeda Motor Yamaha Pada PT Surya Timur Sakti Jatim Surabaya. *AGORA*. 7(1).