

## **The Effectiveness of People's Business Credit (KUR) In Sugarcane Farming In West Java Province, Indonesia**

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Submitted 15 May 2025; Approved 04 August 2025

### **ABSTRACT**

People's Business Credit (KUR) is a credit scheme intended for farmers since 2000. The availability of credit for business actors is used to increase capital. However, not all credit obtained can be categorized as effective. Credit is effective if farmers can receive benefits from the disbursement and use of credit to meet farming activities, and one of which is increasing productivity.. This study aims to analyze the effectiveness of KUR for sugarcane farmers in West Java Province. This research uses a quantitative descriptive analysis method using scoring. The results showed that the average score of timely credit effectiveness was 103%. The timeliness score is greater than 100%, meaning that the average credit is on time. Credit is already available before farmers start farming, so that on average, all farming activities can be carried out on time, except for the procurement of fertilizer and cultivation costs. The average accuracy of the amount of credit with the realization of expenditure is 85%, below 100%. This means that credit for the procurement of inputs and farming activities is still not effective, especially for the amount of fertilizer and herbicides. The level of effectiveness of sugarcane farmer credit is at a score of 87.3% to 106.1%, with an average farmer credit effectiveness rate of 94%. This means that, on average, farmers have credit that is ineffective. Most farmers are late in receiving credit disbursements, and the amount of credit received is less than their farming needs.

**Keywords:** people business credit, credit effectiveness, timely credit disbursement, accurate credit amount

## INTRODUCTION

People's Business Credit (KUR) is a credit scheme programmed by the government to help farmers with capital. In 2020, the performance of KUR financing in the agricultural sector, consisting of food crops, horticulture, plantations, and livestock, reached 1.9 million debtors, and the credit realization was 55.3 trillion, or 110.62% increased from the target of 50 trillion (Ministry of Finance 2021). In 2020, the plantation sub-sector had KUR absorption reaching 463,572 debtors with a total credit of around 18.16 trillion, or around 89.19% of the target of around 20.37 trillion. The realization of plantation KUR in 2021 experienced a significant increase to 29.74 trillion. In 2022, the government set a KUR target of 90 trillion for the entire agricultural sector, with a plantation sector target of 30.8 trillion, with an allocation of 23.23 trillion for cultivation and 6.86 trillion for procurement of agricultural machinery. Based on these data, there was an increase in the realization of KUR in the plantation sub-sector in 2021 of around 38.8%. This figure indicates that there is an increase in farmers' need for capital assistance. One of the plantation crops that has the potential to be developed and is a source of sugar as one of the staple foods in Indonesia is sugarcane.

PT. Rajawali II, a business unit of Jatitujuh Sugar Factory (PG Jatitujuh) Majalengka Regency, is a state-owned company that has the largest Right of Cultivation (HGU) in West Java that produces sugar. Based on the results of interviews in the field, the credit-financed partnership program on HGU land between sugarcane farmers and PG Jatitujuh started in 2018. The cost of planting sugarcane is quite high, according to (Puspita, 2012), making farmers need capital assistance, including sugar cane farmers in the PG Jatitujuh work area. Farmers participate in financing partnership programs to obtain farming capital. An organization in which farmers are involved is a support and resource, so that farmers can access credit (Abdallah et al., 2023). Capital or credit is considered successful if the outcomes align with the intended objectives. Some of the objectives of financing sugarcane farmers through KUR credit are that farmers can finance all their farming activities, so that they can increase their income and welfare. Farmers take loans mainly for three purposes, namely for agricultural inputs such as fertilizers, seeds, irrigation, pesticides, and health and social consumption (Singh & Toor, 2005).

The trend in the number of loans from farmers managing HGU land in PG Jatitujuh from 2018-2022 tends to increase by 11.04% per year with an average amount of farmer loans of around 35,000,000/ha. In the same period, the number of farmers who borrowed (customers) also increased. The increase in financing for sugarcane farming should be followed by the rate of increase in productivity. However, based on the data obtained, the increase in sugarcane productivity at PG Jatitujuh has a slower growth compared to land area and production, which is only 6.4% (2018-2022). The relatively low growth in productivity raises the question of whether the programmed credit has been effective. Several studies have shown that credit can increase productivity (Assouto dan Houngbeme 2023; Wongnaa *et al.* 2023). Research (Farida *et al.* 2016) shows that success of the KUR program, one which is measure by loan repayment, the KUR Non-Performing Loan (NPL) ratio is around 3 % so it can be considered to be healthy or good for the financial institutions that distribute it. Based on the results of interviews in the field, PG Jatitujuh has Non Performing Loan (NPL) to the KUR distributing bank for 2 years, meaning there is a problem in repaying the credit. Problematic

credit repayments can be caused by problematic credit distribution and use, so that credit cannot increase farmer productivity and income, so that farmers have difficulty repaying loans. This gap is what makes researchers interested in conducting research at PG Jatitujuh, West Java. How is the sugarcane farmer credit? Is it effective or not?

Effectiveness is a criterion that shows whether something that is done has achieved the desired goal, not how much it costs to achieve that goal (Rodiana et al., 2014). Measuring the effectiveness of credit can be studied from various perspectives depending on who assesses and interprets it. Credit is considered to be effective if the predetermined goals are achieved. Credit utilization is one indicator to measure the effectiveness of credit. (Khafifah et al., 2022). The effectiveness of credit according to (Hasibuan, 2006) means that the credit is used correctly for the financing that should be as stated in the budget or credit use application. The effectiveness of credit is influenced by the role of regional policies and economic conditions (Eusebio et al., 2017). Research conducted by (Mokalu et al., 2018), (Khoiriah et al., 2024), (Rachmawati, 2012), (Ardhiansyah & Mustofa, 2025) showed that KUR has succeeded in increasing farmers' income and the development of MSMEs so that when the increase goal has been achieved, the credit is considered to be effective. Other studies that examine credit effectiveness are measuring from five aspects, namely right on target, right on time, right amount, right credit burden and right procedure (Syamsudin et al., 2022). Research on credit effectiveness was conducted by (Sudrajat et al., 2022). His research states that several factors that determine the effectiveness of credit distribution for farmers, include four aspects, namely the credit mechanism aspect, the spiritual and social capital dimension, credit supervision, and income stability. (Dwirayani & Jaeroni, 2020) conducted a study on the effectiveness of KUR for mango farmers, the results showed that KUR for mango farmers was quite effective based on five aspects, namely submission, disbursement, utilization, return and impact. Other studies that conducted research on effectiveness are (Lukitasari, 2017) and (Ummah, 2019). His research on the effectiveness of fertilizer distribution, using indicators of the right amount, right time, right place and right price.

There are various indicators used in previous studies to measure the effectiveness of a farm's credit. In this study, the effectiveness of sugarcane farmer credit was measured using timely and accurate quantity indicators. Timely is measured by comparing the realization of the credit disbursement time with the time of use of the credit for the farm. Accurate quantity is measured by comparing the realization of the amount of credit received by farmers with the amount of their needs. This study aims to analyze the effectiveness of KUR for sugarcane farmers in Majalengka Regency, West Java Province.

## RESEARCH METHODS

The research location was determined *purposively*, namely in Majalengka Regency, West Java Province, with the object of research being sugarcane farmers assisted by PG Jatitujuh. The sample frame in this study was all sugarcane farmers who cultivated their land in the 2022/2023 planting season and had credit. Respondents were taken *purposively* from the three largest buffer villages of PG HGU land in Jatitujuh District, Majalengka Regency, namely Sumber Kulon Village, Sumber Wetan Village, and Jatiraga Village. Samples were taken from only 8 farmer groups, namely in Sumber Wetan Village, consisting of the Sumber Manis Sejahtera Farmer Group. Sumber Kulon

Village, namely the Putra Sejahtera Abadi Farmer Group, the Mitra Sejati Farmer Group, and the Kencana Abadi Farmer Group. While in Jatiraga Village, the Agro Mulya, Kejora, Raga Jati and Jatimulya Farmer Groups. Sample selection was done by *purposive sampling* with with a sample size of 257 farmers. Research data collection was carried out by structured interviews listed in the research questionnaire.

The level of credit effectiveness measures how much the objectives of the credit program are achieved. Credit effectiveness is measured by two indicators, namely on time and on amount. On-time credit is the timeliness of credit availability with the time of use of the credit for farming. Seven items will be measured for timeliness, namely land, seeds, cultivation, fertilizer, herbicides, cutting and transport, and mechanization. On amount of credit is the accuracy of the amount of credit availability with the needs issued. In this research, seven items are measured for accuracy, namely land, seeds, cultivation, fertilizer, herbicides, cutting and transport, and mechanization. Measurement of credit effectiveness uses indicator distributed according to needs and used on time. This is in accordance with the theory (Gittinger, 1986).

**Table 1.** Measurement of Timely Credit Disbursement

| Variables            | Indicator                  | Sub indicators       | Definition                                                                                        |
|----------------------|----------------------------|----------------------|---------------------------------------------------------------------------------------------------|
| Credit Effectiveness | Timely Credit Disbursement | a. Land              | Compare the credit disbursement time for land costs with the land use                             |
|                      |                            | b. Seeds             | Compare the credit disbursement time for seed costs with the time be used.                        |
|                      |                            | c. Fertilizer        | Compare the credit disbursement time for fertilizer costs with the time be used                   |
|                      |                            | d. Herbicide         | Compare the credit disbursement time for herbicide costs with the time be used                    |
|                      |                            | e. Cultivation Cost  | Compare the actual disbursement of cultivation costs with the submission time                     |
|                      |                            | f. Mechaniation      | Compare the time of credit disbursement for cutting and transport with the implementation of time |
|                      |                            | g. Cut and transport | Compare the time of credit disbursement for mechanization with the implementation of time         |

Source: Modified from (Mahendri 2009), Sudrajat *et al.* (2022)

The timely credit score is obtained by comparing the credit disbursement time with the credit usage time for farming based on Good Agriculture Practices (GAP). The realization of the time of credit receipt was obtained through interviews with farmers. The implementation of the farming schedule is obtained by looking at the procedures or series of principles or rules established in sugarcane farming cultivation (GAP). After knowing the realization of the credit disbursement time based on interviews and the time of sugarcane farming work according to GAP, the next step is to compare the time difference. If the credit disbursement is made before the credit is used, the difference is positive. Conversely, if the credit is late in disbursement after the time of use, the difference is negative. The time difference in days is then changed to the time difference in months. After obtaining

the difference in months for each farmer, the difference is then changed in the form of a percentage (%) or scoring. The author categorizes timely credit as having a score of  $\geq 100\%$ , and untimely credit as having a score of  $\leq 100\%$ .

**Table 2.** Measurement of Accurate Amount

| Variables            | Indicator       | Sub indicators       | Definition                                                                                 |
|----------------------|-----------------|----------------------|--------------------------------------------------------------------------------------------|
| Credit Effectiveness | Accurate amount | a. Land              | Compare the amount of land costs received with the land cost credit ceiling                |
|                      |                 | b. Seeds             | Compare the amount of seed credit ceiling with the number of used                          |
|                      |                 | c. Fertilizer        | Compare the amount of fertilizer needed with the amount of used                            |
|                      |                 | d. Herbicide         | Comparing the amount of herbicide needed with the amount of used                           |
|                      |                 | e. Cultivation cost  | Compare the amount of the ceiling for the cultivation costs with the amount received.      |
|                      |                 | f. Mechanization     | Compare the amount of the ceiling for the mechanization costs with the amount received     |
|                      |                 | g. Cut and transport | Compare the amount of the ceiling for the cut and transport costs with the amount received |

Source: Modified from (Mahendri 2009), Sudrajat *et al.* (2022)

The accurate amount score is obtained by comparing the amount of farmer's actual expenditure with the ceiling or dose requirement. The realization of the amount of farmer expenditure was obtained through interviews in the field. The credit ceiling was obtained based on an interview with PG Jatitujuh as the distributor. After knowing the realization of farmer's expenditure needs and the amount of credit available, the next step is to compare the difference between the two. If the realization of farmer's expenditure is greater than the ceiling set, the difference is negative, conversely, if farmer's expenditure is less and is covered by the ceiling, the difference is positive. The difference in money is then converted into a percentage (%) or scoring. Researchers categorize the accurate amount of credit as follows. If the credit is accurate, the score is below 100%, if the credit is not accurate, the score is below 100%.

## Measumerent of Credit Effectiveness

After knowing the on-time score and the accurate amount score of each farmer, the next stage is to calculate the credit effectiveness score. The credit effectiveness score is obtained by adding up the on-time and exact amount scores of each farmer for the seven credit items, then divided by two (because there are 2 indicators). If the credit effectiveness score is below 100%, the farmer is categorized as having ineffective credit. If the effectiveness score is above 100%, the farmer has effective credit. Effectiveness measurement using scoring is also carried out by (Mudassir et al., 2020; Januarysky, 2025)

## RESULT AND DISCUSSION

The purpose of this study is to analyze the effectiveness of sugarcane farmer credit in the Jatitujuh Sugar Factory working area, Majalengka Regency, West Java Province. The purpose of this study was to analyze the effectiveness of sugarcane farmer credit in the Jatitujuh Sugarcane Farming Work Area, Majalengka Regency, West Java Province. The research conducted only focused on measurable variables, namely on time and on amount. Timeliness is measured from farmers' perceptions regarding the timeliness of credit availability with the time the credit is needed. The accuracy of the amount is measured from the accuracy of the amount of farming needs that can be met by credit. Credit effectiveness is measured using 7 items, namely credit for land use compensation (KPL), seed procurement, fertilizer procurement, herbicide procurement, cultivation costs, mechanization and procurement of cutting and loading and transport costs (TMA). In this study, what was measured was sugarcane farming in the 2022/2023 planting season.

### Timely Credit Disbursement

Timeliness is measured using seven work items, namely the time of credit availability and the timeliness of credit use for land compensation, seeds, fertilizers, herbicides, cultivation costs, mechanization, and cutting and transport. Delays in the availability of credit for farming can affect delays in paying land compensation, delays in planting, fertilization, weed control, delays in payment of cultivation costs for labor and delays in the mechanization process, and delays in the cutting and loading, and transport process in the field. In this regard, banks as sources of credit and PG as credit distributors and farmers as credit users have a very important role to ensure the timely availability of credit with the time of farming activities, which include the seven farming jobs. Table 3 shows farmers' perceptions of the timeliness of credit availability with the use of credit.

**Table 3.** Calculation of timely credit per farmer's land area

| No                     | Credit Items  | Good Agriculture Practices (GAP) | Average Disbursement | Average Difference (month) | Average Difference (%) | (%) Accuracy |
|------------------------|---------------|----------------------------------|----------------------|----------------------------|------------------------|--------------|
| 1                      | Land          | August 2022                      | 24 June 2022         | 1,2                        | 10                     | 110,0        |
| 2                      | Compensation  | August 2022                      | 22 July 2022         | 0,3                        | 2,5                    | 102,5        |
| 3                      | Seeds         | December 2022                    | 15 January 2023      | -1,5                       | -12,5                  | 87,5         |
| 4                      | Fertilizer    | December 2022                    | 7 October 2022       | 1,9                        | 15,8                   | 115,8        |
| 5                      | Herbicide     | March 2023                       | 18 April 2023        | -0,6                       | -5                     | 95,0         |
| 6                      | Cultivation   | August 2023                      | 27 June 2022         | 1,1                        | 9,2                    | 109,2        |
| 7                      | Mechanization | May 2023                         | 30 April 2023        | 0,05                       | 0,4                    | 100,4        |
| Cut and Transport      |               |                                  |                      |                            |                        |              |
| Total Average Accuracy |               |                                  |                      |                            |                        | 103          |

Source: Processed Primary Data (2024)

According to the perception of respondent farmers, the disbursement of credit for the use of land compensation costs can be disbursed in June 24, 2022. An overview of field conditions regarding land compensatiton costs paid by farmers to the sugar mill (PG). In the application for credit for the

2022/2023 planting season to the farmer's bank, a report on the results of the plantation inspection is included and it includes the time of land handover and the amount of land compensation so that the disbursement of credit for land compensation is on average before the land is used. The use of credit for land compensation is on average never delayed or on time based on farmers' perceptions because the credit agreement occurs before the land will be used. The land was used in August 2022, before the money from the credit was used to pay land rent, which had been paid to PG.

Credit agreements for the 2022/2023 planting season mostly started in June. On average, land use starts in early August. After the credit agreement is signed, the land can be cultivated; in fact there have been instances in the field where cultivation began even before the credit agreement was finalized if the farmer has made a contract with PG, the farmer can still start cultivating sugarcane land with advance costs provided by PG. Based on findings in the field, has never happened in the field on HGU land that farmers cannot use the land because they have not paid the land compensation fee. If that happens, it will cause delays in managing the garden and not by the predetermined schedule. If there are farmers who have not signed a credit agreement, the land can still be used by farmers. The difference between the disbursement and use of credit is around 1,2 month or 36 days, so the difference average percentage is 10% ( $1,2/12 \times 100\%$ ). The percentage of accuracy is obtained by adding the percentage difference to 100%, the result is 110%. Interpretation of the results according to farmers, credit for land compensation costs is not late, even 1,2 month earlier, the credit is already available.

The second item financed by credit is seed input. The seeds used by farmers are available in August for use during the same month. The percentage of credit effectiveness for seeds is 102,5%. PG guarantees the availability of seeds a maximum of 1 week before planting or replanting. The next is procurement for phonska fertilizer. In the 2022/2023 planting season, only a small number of farmers were able to obtain fertilizer before the second fertilization, namely December 2022. Most of the farmers received fertilizer in January 2023, and some farmers even received fertilizer in February and March 2023. The delay in fertilizer was not caused by the credit not being disbursed, but by the lack of availability of subsidized fertilizer from the government. The percentage of fertilizer availability with the time of use was around 87.5%, with an average availability of fertilizer used by farmers being 1,5 month late. The delay in fertilizer caused the application of fertilizer to be delayed. The disbursement of in-kind fertilizer credit was carried out at the same time as the initial application of fertilizer, 2-3 times. Mandatory fertilizer application is done twice, namely at the age of 1.5 months to 4 months. Due to the delay in fertilizer, on average farmers can fertilize sugarcane from January to March. Some farmers who take the solution of delayed fertilizer by looking for alternative non-subsidized fertilizers or by borrowing from rice farmers in other areas. The price of non-subsidized fertilizer is expensive, so if it is not possible to buy or there is no fertilizer, farmers experience delays in fertilizer application. Due to the availability of fertilizer is not on time, fertilizer application is carried out after the fertilizer is available so that fertilization is carried out at the age of sugarcane which is more than 4 months

Herbicide brands that are widely used by farmers are parakson and promin. Herbicides are obtained from agricultural shops in their respective villages. The average credit percentage for The Effectiveness Of People's Business Credit (KUR) In Sugarcane Farming In West Java Province (dwirayani, et al., 2025)

herbicides is 115,8%, with an average difference between disbursement and use of 1,9 months. According to the assessment of most farmers, the disbursement of in-kind credit for herbicides is never late and is available when it is used. Herbicide use is carried out twice, namely from September to December. The disbursement of credit for cultivation costs is often late according to farmers' perceptions, on average, farmers wait for the disbursement of cultivation costs for 19 days after submission. Submission of cultivation costs is made after farmers have completed the work or used the claim system. Disbursement of cultivation costs ranges from 15 days to 1 month after submission. The percentage score for the availability of cultivation costs is 95%. Interpretation of the results of the disbursement of cultivation costs is delayed, with an average delay of 19 days after submission. PG must first control and check the garden whether it is following the work reported by farmers, and that takes enough time. Every farm work done by farmers is written in a cadong book. The cadong book contains the cadong date, proof number, description of the work done, who the foreman is who supervises it, and how much wages are received for the work. Farmers submit the cadong together with the work being done or after the work is completed. Sometimes, some farmers ask for cadong funds in advance before doing farm work. If the PG cash flow is good, usually the PG can provide initial cultivation costs, but most cultivation costs are given after the farmer has finished the work and are done in stages.

Mechanized tasks related to land preparation before planting or cutting are carried out using a contract bases system. PG has a vendor to help with the mechanization process. Labor wages for mechanization are paid by PG, while mechanization management is carried out by the vendor. If the credit for mechanization has not been disbursed, usually the vendor still carries out the activity so that there is no delay. Some jobs that use mechanization are chisel plowing, subsoiling, furrowing and other similar activities. chise If mechanization is carried out late, it will result in delays in subsequent work. Most of the sugarcane planted uses rainfall. Farmers who manage sugarcane rely on rainwater must take advantage of it so that they do not lose rainwater, so that work can be done simultaneously in a short time. Therefore, mechanization is carried out so that work is completed quickly. Sugarcane requires high rainfall during the vegetative growth period, which is around 4 months. Because most of the farmers use rainwater for irrigation, if mechanization is late, work related to land and planting is late, and farmers cannot rely on rainwater for the vegetative growth period of sugarcane. The average mechanization cost in June has been disbursed for use in August. The average difference between disbursement and use is 1 month, so the percentage of effectiveness. for mechanization costs is 109,2%. The interpretation of the effectiveness score is that the disbursement of credit for mechanization work on average according to farmers is not late.

The last job financed by credit is Cutting, Loading, and Transporting (TMA). Sugar cane must be cut and transported on time for optimal yields, otherwise, it will affect the decline in sugar productivity and farmer income. Cutting, loading, and transporting work is scheduled by PG based on the sugarcane milling capacity at the factory and the priority of land that has met the criteria for harvest time. This aims to ensure that the sugarcane is not cut too late or too early. PG pays attention to several things to prioritize cutting, such as human resources and the age of the sugar cane. The cutting and transporting work time is adjusted to the age of the sugarcane, which is 10-12 months. Payment for TMA is given according to the realization in the field. Because farmers always protest

The Effectiveness Of People's Business Credit (KUR) In Sugarcane Farming In West Java Province 821  
(dwirayani, et al., 2025)

if the cutting and loading, and transport wages are late, in the 2022/2023 planting season, PG always prioritizes that this work be carried out on time and schedule with an effectiveness score of 100,4%. Farmers assess that TMA work can be done on time, and the disbursement of wages is only 1,5 days after the work is completed. For 2 ha of land, TMA activities are completed within 1 to 2 weeks. Delays in TMA work never occur if they are caused by the lack of disbursement of funds, but are usually related to priority schedules and milling capacity at the factory.

Based on the explanation above, the percentage score of input or costs can be sorted from the most late or untimely procurement in sequence, namely credit disbursement for fertilizer procurement (87.5%), cultivation costs (95%) then loading and transporting (100,4%) seed procurement (102.5%) mechanization (109,2%), cutting, land compensation (110%), and herbicide procurement (115,8%). The average credit effectiveness score from the timely indicator is 103%. The on-time score is greater than 100%, meaning that the average credit is on time. Only disbursement for fertilizer procurement and seed procurement has a score of less than 100%.

### Exact Credit Amount

The accuracy of the amount of credit related to the needs in sugarcane farming work is included in the indicators for measuring credit effectiveness. There are seven indicators used to measure the accurate amount, namely land compensation, purchase of inputs such as seeds, fertilizers, and herbicides, cultivation, mechanization and cutting, loading, and transporting. Measurement of the accuracy of the amount of credit for land compensation, cultivation costs, mechanization, and cutting and transporting is measured from the 2022/2023 credit ceiling with real farmer expenditures in the field. Measurement of the accurate amount of credit for seeds, fertilizers, and herbicides is measured from the farmer's needs for input based on standard doses compared to the amount of input obtained by farmers from the credit ceiling value.

**Table 4.** Calculation of the accurate amount of credit per area of farmer's land

| No                        | Item Kredit       | Plafon (Rp) | Dosis (Rp) | Rata-rata Pengeluaran (Rp) | Selisih Rata-rata (Rp) | Selisih Rata-rata (%) | (%) Ketepatan |
|---------------------------|-------------------|-------------|------------|----------------------------|------------------------|-----------------------|---------------|
| 1                         | Land Compensation | 5.700.000   |            | 5.609.932                  | 90.086                 | 1,5                   | 101,5         |
| 2                         | Seeds             | 2.738.204   |            | 3.239.204                  | -501.000               | -15,4                 | 84,5          |
| 3                         | Fertilizer        |             | 4.803.593  | 2.549.032                  | -2.254.561             | -46,9                 | 53,1          |
| 4                         | Herbicide         |             | 960.000    | 653.402                    | -306.598               | -31,9                 | 68,1          |
| 5                         | Cultivation       | 10.537.527  |            | 9.985.552                  | 551.975                | 5,2                   | 105,2         |
| 6                         | Mechanization     | 2.235.193   |            | 2.265.009                  | -29.815                | -1,3                  | 98,7          |
| 7                         | Cut and Transport | 11.961.517  |            | 14.591.501                 | -2.629.984             | -18,0                 | 82,0          |
| Total ketepatan rata-rata |                   |             |            |                            |                        |                       | 85            |

Source: Processed Primary Data (2024)

Based on Table 4, the average land compensation cost ceiling is IDR 5,700.000. Meanwhile, the cost incurred by farmers to pay land rent is IDR 5,609,932. The average difference between the credit ceiling and the cost incurred by farmers for land compensation is IDR 90,086. The excess of the land compensation cost is included in the farmer's income at the end of the period. The credit for

land compensation is the right amount according to farmers, with a percentage score of 101.5%. The land compensation cost is all covered by the ceiling determined by the bank. The cost of land compensation incurred by farmers is IDR 3,000,000/ha. The KPL HGU cost charged to farmers by PG, according to PG's perception, is cheap when compared to the cost of land rent if farmers rent land independently outside of HGU. The average cost of renting non-HGU land in the Jatitujuh area and its surroundings is IDR 4,000,000/ha. Furthermore farmers who do non-HGU sugarcane farming have to spend more KPL money compared to farmers who do farming on HGU PG land.

The credit cost ceiling for RC sugarcane seeds is IDR 1,150,000/ha, while for PC sugarcane it is IDR 3,600,000/ha. The credit ceiling for seeds per farmer's land area averages IDR 2,738,204. Meanwhile, the realization of seed costs incurred by farmers to expand their land averages IDR 3,239,204. The percentage of seed cost accuracy is 84.5%. The costs incurred by farmers are greater than the credit ceiling available for seeds. The reality in the field, at that time, the price of seeds increased by IDR 120,000/ku. While previously the price of seeds was estimated at IDR 80,000/ku. Farmers have to spend more money because the price of seeds is high. The credit ceiling for seeds can be used to buy 22.8 ku of sugarcane seeds, while on average, farmers use 26.9 ku of sugarcane seeds. The average difference between the availability of the ceiling and the costs incurred by farmers is IDR. 501,000 or equivalent to 4.1 quintals of sugarcane seeds. Farmers overcome the shortage of seeds needed by looking for seeds from other farmers, with compensation for farmers paying seed money after income is received at the end of the period.

The next item financed by credit is the procurement of fertilizer. The percentage of accuracy of fertilizer credit is calculated by comparing the recommended dose with the amount of fertilizer used by farmers. The recommended dose for phonska fertilizer per ha is 6 ku and ZA 5 ku, or around 20.9 ku on average per farmer's land area with fertilization application of 2-3 times. For the recommended dose, it requires money from the credit of around Rp. 4,803,593. In reality, in the field, farmers only use phonska fertilizer with an average use of around 11.1 per farmer's land area and spend Rp. 2,549,032 with the price at that time of Rp. 230,000/ku. There is a discrepancy between the amount of fertilizer credit provided and the actual fertilizer usage observed in the field, which is Rp. 2,254,561 or equivalent to 9.8 ku of fertilizer. Farmers did not use fertilizer according to the recommended dosage due to the unavailability of ZA. Farmers did not use fertilizer according to the recommended dosage due to the unavailability of ZA fertilizer in the market and difficulties in obtaining it so that farmers only use phonska fertilizer. The credit ceiling for fertilizer is not fixed, PG in this case fulfills the farmer's fertilizer demand for whatever fertilizer is needed by the farmer. The standard dose of phonska fertilizer is the minimum standard for fertilizer requirements for sugarcane plants/ha.

The use of herbicide dosage is 12 liters/ha, applied in two spraying sessions. The cost of credit needed for herbicide is IDR 960,000. Farmers use an average of 11.1 liters of herbicide per farmer's land area. The amount of money spent by farmers to buy herbicide is IDR 653,402 with the price of herbicide at that time being IDR 80,000/liter. The percentage of accuracy of herbicide costs is 68.1%. Farmers use herbicides not according to the recommended dosage. There is a difference or shortage of IDR 306,598 or equivalent to 3.8 liters of herbicide. The use of herbicides is very important to

prevent weed growth. Farmers are sometimes unwilling to purchase additional herbicide as it would reduce their income at the end of the period; as a result, the herbicide is used in minimal quantities, not in accordance with the recommended dosage. This has an impact on the growth of many weeds in sugarcane plants.

The credit ceiling for PC sugarcane cultivation costs is IDR 5,550,000/ha. The average ceiling for expanding farmers' land is IDR 10,537,527, while the realization in the field is that farmers spend IDR 9,985,552 on cultivation costs. The percentage of accuracy of cultivation costs is 105.2%. There is a difference of around IDR 551,975. Farmers who do their work spend the cultivation cost ceiling by carrying out additional maintenance activities. However, some farmers cannot utilize the difference in the cultivation cost ceiling because their work does not match the work progress schedule written in the cadong book. For example, farmers have done the gutter cleaning work, but the foreman has not seen the work finished in the field, so the cultivation costs cannot be disbursed. Some jobs that cannot be covered by the credit ceiling include additional watering work from the reservoir and additional fertilization. Farmers who undertake these additional tasks must either cover the costs themselves or borrow from the sugar mill (PG), with repayment deducted from their harvest income, thereby reducing their net earnings.

The next component financed by credit is the mechanization of farm operations. The mechanization credit ceiling for the PC category is IDR 3,232,000/ha, while RC is IDR 1,042,000. The ceiling for expanding farmers' land is IDR 2,235,193, while the realization of costs incurred by farmers is IDR 2,265,009. The percentage of accuracy of mechanization costs is 98.7%. There is a difference between the ceiling and the realization of farmer expenditure, which is an average of IDR Rp. -29.815. The mechanization of farm operations is carried out using a contract system with Village-Owned Enterprise (Bumdes) as a facilitator or vendor. The final item financed by the credit scheme is Harvesting, Loading, and Transport (TMA). The credit ceiling for the 2022/2023 planting season for TMA in the PC category and RC are IDR 6,300,000/ha. The credit ceiling for TMA per farmer's land area is an average of IDR. 11.961.517 while the realization in the field of the costs incurred for TMA is IDR. 14,591,501. The ceiling set by PG as a distributor of KUR is small compared to the realization of farmer expenditure. There is a difference of Rp. -2,629,984 between the ceiling and the costs incurred. The percentage score for TMA costs is 82%. The shortfall in TMA costs is paid by PG to the vendor or Bumdes that facilitates TMA. Farmers do not receive any impact from the shortfall in TMA costs.

According to farmers' perceptions and comparisons between credit ceilings or recommended standard dosage requirements with the actual amount used by farmers, the average accuracy percentages in order from the smallest to the largest accuracy percentages are fertilizer (53.1%), herbicide (68.15), TMA (82%), seeds (84.5%), mechanization (98.7%), land use compensation (101.5%), and cultivation costs (105.2%) and The average credit score for the correct amount is 85%.

### **The Credit Effectiveness Level of Respondent Farmer**

The credit effectiveness level of each respondent is obtained by combining the percentage score of accuracy of the seven credit-financed items with two indicators of on-time and on-time

The Effectiveness Of People's Business Credit (KUR) In Sugarcane Farming In West Java Province 824  
(dwirayani, et al., 2025)

amount, then divided by 2. The credit timeliness scores of farmers range from 97.6 to 108, with an average timeliness score of 103, while the credit amount accuracy scores range from 74.5 to 105.9, with an average amount accuracy score of 85. Then the effectiveness of credit in this study is divided into two criteria, namely ineffective ( $k \leq 100\%$ ) and effective ( $k \geq 100\%$ ). Measurement of credit effectiveness with the on-time credit indicator is carried out by comparing the work schedule or *Good Agricultural Practices* (GAP) with the realization multiplied by 100%. Measurement of the right amount of credit according to farmer perceptions is carried out by comparing the credit ceiling or standard dose recommended for each sub-indicator with the realization of farmer expenditure for seven sub-indicators. After that, calculate the excess or lack of money from the credit used. The last step to measure the total credit effectiveness score of each respondent farmer is carried out by adding the on-time credit score and the right amount credit score then divided by two.

**Table 5.** Recapitulation of The Credit Effectiveness Scores of Farmers

| No    | Total Credit Effectiveness (CE) Score (%) | Number of Farmers (people) | Percentage (%) | Average Total Credit Effectiveness (%) |
|-------|-------------------------------------------|----------------------------|----------------|----------------------------------------|
| 1     | 87,3-91                                   | 66                         | 25,68          | 94                                     |
| 2     | 91,1-94,8                                 | 96                         | 37,35          |                                        |
| 3     | 94,9-98,5                                 | 43                         | 16,73          |                                        |
| 4     | 98,6-102,3                                | 49                         | 19,07          |                                        |
| 5     | 102,4-106,1                               | 3                          | 1,17           |                                        |
| Total |                                           | 257                        | 100            |                                        |
| No    | Total Effectiveness Score                 | Number of Farmers (people) | Percentage (%) | Information                            |
| 1     | < 100                                     | 217                        | 84.4           | Ineffective credit                     |
| 2     | $\geq 100$                                | 40                         | 15.6           | Effective credit                       |
| Total |                                           | 257                        | 100            |                                        |

Source: Processed Primary Data (2024)

Based on Table 5, the farmer credit effectiveness scores range from 87,3% to above 106,1%, with the average credit effectiveness level among farmers being 94%. In this study, farmers were divided into two groups, namely farmers whose credit was effective and farmers whose credit was ineffective. Farmers whose credit was effective are farmers whose credit effectiveness score was equal to or greater than 100%. Meanwhile, farmers whose credit was ineffective are farmers whose credit effectiveness score was below 100%. The table shows that 217 farmers or 84.4 % of their credit was ineffective, meaning that some farmers received credit not on time and not in the right amount. The remaining 40 farmers or 40% of their credit was effective. Only a small number of farmers received credit on time and in the right amount in the 2022/2023 planting season. The results of this study are relevant to the research conducted by (Bo, 2018). The results of the study show that some farmers in Myanmar have effective agricultural credit, but some of their credit is not in the right amount, so it is not sufficient for their farming needs. Farmers have to borrow again from other sources to be able to meet their farming needs.

## CONCLUSION AND SUGGESTION

The percentage score of input or cost can be sorted from the most late or untimely procurement in sequence is credit disbursement for fertilizer procurement (87,5%), cultivation costs (95%) cutting, loading and transporting (100,4%), seed procurement (102,5%) then mechanization (109,2%), land compensation (110%), and herbicide procurement (115,8%). The average credit effectiveness score of the timely indicator is 103%. The delay in fertilizer supplies is due to farmers relying on subsidized fertilizer for farming. The tendency of the government budget for subsidized fertilizer quotas for sugarcane plants on land with business use rights (HGU) is not prioritized. According to the regulation, subsidized fertilizer is given to smallholder sugarcane farmers who manage their own land. Comparison between the credit ceiling or recommended standard dose requirements with the actual amount used by farmers, the average accuracy percentage in order from the smallest to the largest accuracy percentage are are fertilizer (53.1%), herbicide (68.15), TMA (82%), seeds (84.5%), mechanization (98,7%), land use compensation (101.5%), and cultivation costs (105.2%) and The average credit score for the correct amount is 85%.

The credit effectiveness scores among farmers range from 87,3% to over 106,1%, with an average credit effectiveness level of 94%. Farmers whose credit is considered effective are those with a credit effectiveness score equal to or greater than 100%. Meanwhile, farmers whose credit is ineffective are farmers whose credit effectiveness score is below 100%. The table shows that 217 farmers or 84.4 % of their credit is ineffective and 40 farmers or 15,6% of their credit is effective. Sugarcane farmers in the PG Jatitujuh fostered area have only a small portion that is categorized as effective credit, and most of their credit is ineffective, especially from the right amount indicator. PG should be able to increase the participation of member farmers in credit planning to minimize the gap between the need and availability of credit. Farmers who manage the farm business can provide suggestions and input based on previous farming experience, so that financial planning for managing the farm business is more accurate and there is no longer a large gap in its implementation

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