# THE EFFECT OF DISTRIBUTION OF PEOPLE'S BUSINESS CREDIT (KUR) IN THE AGRIBUSINESS SECTOR AND THE FACTORS THAT INFLUENCE IT ON PAPUA BANK PERFORMANCE

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> Abstract: Bank Papua is a financial institution that distributes KUR in Papua and West Papua. However, the KUR agribusiness sector of Bank Papua has decreased from year to year. Therefore, this study aims to determine the effect of KUR on the agribusiness sector and the factors that affect the performance of Bank Papua. Secondary data comes from Bank Papua, BPS Papua and West Papua. The data were processed and analyzed using multiple linear regression with the Ordinary Least Square (OLS) approach to determine the real effect of the independent variables on the dependent variable. The results showed that KUR in the agribusiness sector, loan deposit to ratio, net interest margin, and the conditions of the COVID-19 pandemic were not significant, while operating expenses on operating income had a significant effect on return on assets. Bank Papua must be more efficient in carrying out its business activities by reducing operational costs and increasing operating income, one of which is by increasing KUR distribution in the agribusiness sector as an economic sector that absorbs potential labor and is a sector that can withstand shocks. Operating expenses on operating income that have a negative effect on the return on assets indicates that Bank Papua is not efficient in running its business because it suffers losses. This will have an impact on decreasing credit, especially KUR in the agribusiness sector as an economic sector that is classified as high risk. This is due to its perishable nature and seasonality, thereby hampering the government's goal of developing the potential of Papua and West Papua to improve the welfare and economy of the community.

> Keywords: agribusiness potential, KUR agribusiness sector, Papua Bank performance, regression multiple linear

Abstrak: Bank Papua merupakan lembaga keuangan penyalur KUR di Papua dan Papua Barat. Namun, KUR sektor agribisnis Bank Papua mengalami penurunan dari tahun ke tahun. Oleh karena itu, penelitian ini bertujuan mengetahui pengaruh KUR terhadap sektor agribisnis dan faktor-faktor yang mempengaruhi kinerja Bank Papua. Data sekunder bersumber dari Bank Papua, BPS Papua, dan Papua Barat. Data diolah dan dianalisis menggunakan regresi linier berganda dengan pendekatan Ordinary Least Square (OLS) untuk mengetahui pengaruh nyata variabel independen terhadap variabel dependen. Hasil penelitian menunjukkan bahwa KUR sektor agribisnis, loan deposit to ratio, net interest margin, dan kondisi pandemi COVID-19 tidak signifikan sedangkan beban operasional terhadap pendapatan operasional berpengaruh signifikan terhadap return on asset. Bank Papua harus lebih efisien dalam menjalankan kegiatan usahanya dengan menekan biaya operasional dan meningkatkan pendapatan operasional, salah satunya dengan meningkatkan penyaluran KUR di sektor agribisnis sebagai sektor ekonomi penverap tenaga kerja potensial dan sektor yang mampu bertahan dari goncangan. Beban usaha atas pendapatan usaha yang berpengaruh negatif terhadap pengembalian aset menunjukkan bahwa Bank Papua tidak efisien dalam menjalankan usaha karena mengalami kerugian. Hal tersebut akan berdampak pada penurunan kredit khususnya KUR pada sektor agribisnis sebagai sektor ekonomi yang tergolong berisiko tinggi. Hal ini dikarenakan sifatnya yang mudah rusak dan ketergantungan musim, sehingga menghambat tujuan pemerintah untuk mengembangkan potensi Papua dan Papua Barat untuk meningkatkan kesejahteraan dan perekonomian masyarakat.

Kata kunci: potensi agribisnis, kur sektor agribisnis, kinerja bank papua, regresi linier berganda

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# INTRODUCTION

The modern economy requires financial institutions that are very important in driving economic growth. Banks are mediation institutions that collect public funds and distribute them to the public through credit. Small and Medium Enterprises need credit as additional business capital, which is often an obstacle for business actors to develop their business, especially in the productive sector, including agribusiness. Additional capital obtained through credit increases inputs and production, increasing production and income (Iski et al. 2016). However, to obtain capital, Micro, Small, and Medium Enterprises (MSME) actors face several obstacles related to loans, such as credit guarantees, high-interest rates, delays in loan disbursement, and difficult procedures or records that reduce access to formal credit (Chandio and Jiang, 2018), so MSME players prefer accessing credit at non-formal institutions, but detrimental to household welfare (Chen et al. 2023). So the government's role is needed to facilitate loans in the agribusiness production sector. Targeted government support can benefit banks with limited capital and overcome small business financial constraints (Hackney, 2023). The government has a role for MSMEs by providing capital through People's Business Credit (KUR) using interest subsidies. Government-controlled interest rates affect the probability of success and profitability of agribusiness actors (Saghaian et al. 2022) and encourage businesses to increase loan repayments (Jang et al. 2020). KUR in Papua and West Papua is channeled through several financial institutions, including Bank Papua. So that as a governmentowned bank, Bank Papua not only carries out its mediation function to seek profit but also increases the regional economy with the government. State-owned banks have no significant effect on profitability, while private-owned banks have a significant effect on profitability (Ekinci and Poyraz, 2019).

The provinces of Papua and West Papua can potentially become major producers for developing the agribusiness sector in Eastern Indonesia. According to the BPS Papua and West Papua (2022), the majority of the population is in rural areas and earns a living in the agriculture, fishery, and fishery sectors of 5,360 villages in Papua and 1,899 villages in West Papua so that they can absorb a workforce of 32,7 percent of the workforce and as an economic sector that absorbs the largest workforce compared to other economic sectors so that it is said to be a potential regional sector that should be reckoned with and receives fiscal support. However, this sector contributed 12,30 percent (Papua) and 10,98 percent (West Papua) with a per capita income of Rp. 59,08 million/year, far lower than the per capita income of other economic sectors (BPS Papua, 2021 and Papua Barat, 2021).

This condition is also supported by the growth of GRDP in the agriculture, fisheries, and forestry sectors in Papua and West Papua, which has increased yearly (Figure 1). Even though 2020 saw the peak of the COVID-19 pandemic, which caused a reduction in activities outside the home with the issuance of government policies regarding Large-Scale Social Restrictions (PSBB) as an effort to reduce the spread of COVID-19 which has an impact on reducing the demand for and supply of goods and services. Fiscal policy uncertainty reduces investment, employment, and consumption (Fernández et al. 2015). This situation did not occur in the agriculture, fisheries, and forestry sectors showing a positive trend. During the COVID-19 pandemic, Indonesia's GDP contracted up to -2,1 percent (yoy), but the agriculture, fisheries, and forestry sectors grew by 1,5 percent (Ministry of Economic Affairs, 2021).

Figure 2 shows Bank Papua's KUR distribution which continues to increase yearly. The largest distribution is in the non-agribusiness trade sector and has increased since 2018, amounting to Rp. 9.502,86 million or 16 percent until 2022 of Rp. 140.764,97 million or 51,84 percent of the total Bank Papua KUR distribution, while the agribusiness sector has decreased yearly. In 2018 the distribution of KUR for the Bank Papua agribusiness sector amounted to Rp. 42.175,80 million or 71 percent, and in 2022 Rp. 90.451,33 million, 33 percent of the total KUR distribution. The decline in the distribution of KUR in the agribusiness sector, in addition to the credit constraints faced by the problem of the characteristics of agribusiness products, is also the reason for the difficulty in accessing additional capital through formal institutions. The problem of time lag for agribusiness products and credit guarantees is a consideration for banks in extending credit (Ndegwa et al. 2020). It shows agribusiness products as risky products. However, high-risk results in higher returns (Olszak and Pipień, 2016).



Figure 1. Graph of average GRDP growth in the agriculture, fisheries, and forestry sectors in Papua and West Papua



Figure 2. Distribution of Bank Papua KUR

Bank Papua has easier access to reach the public because of its existence in almost all regions of Papua and West Papua to serve the interests of the local government. Greater bank efficiency can increase access to credit requests (Fungáčová et al. 2020) so that Bank Papua has a market in the agribusiness sector. Banks with higher market power earn higher profits (Ekinci dan Poyraz, 2019). Under these conditions, Bank Papua should further increase the distribution of KUR to the agribusiness sector because, based on Figure 1, the GRDP of the agriculture, fisheries, and forestry sectors has increased. GRDP, which shows a positive trend, reflects the increasing ability of economic resources because people have sufficient income to pay their obligations. In line with Dang et al. (2021), financing in the agribusiness sector positively affects GRDP, indicating that agribusiness financing is profitable, so banks focus more on it because it significantly contributes to GRDP. An increase in real GRDP has a positive and significant effect on credit growth

(Nguyen et al. 2020). Banks will increase lending so that credit growth will impact economic growth. Bank loans are influenced by the demand for and supply of credit (Nguyen et al. 2020). Furthermore, high loan growth increases the ROA (Saleh and Afifa, 2020). Based on the description, this study aimed to analyze the influence of KUR distribution in the agribusiness sector and the factors that influence the performance of Bank Papua.

#### **METHODS**

The study used secondary data for the fourth quarter of 2015 to the fourth quarter of 2022 for 29 samples sourced from Bank Papua, BPS Papua, and West Papua so that the information provided is based on the information obtained. The limitations of the data in this study were that before the initial period of research, KUR distribution still used the Guarantee Service Fee (IJP) pattern, so there was no target for KUR distribution in the economic sector from the government to KUR channeling institutions so that the input to Bank Papua as a distributor when the credit contract did not differentiate KUR per economic sector. The type of data used is Return On Assets (ROA), distribution of KUR in the Bank Papua agribusiness sector, Loan Deposit to Ratio (LDR), Net Interest Margin (NIM), Operating Expenses and Operating Income (BOPO), and the conditions of the COVID-19 Pandemic.

The data obtained were processed using Microsoft Office Exel 2013 and Eviews 9. The quantitative analysis method was carried out using multiple linear regression with the Ordinary Least Square (OLS) approach to determine the direction and how much the independent variable (X) had a real influence on the dependent variable (Y). Independent variables consist of KUR distribution in the agribusiness sector, Loan Deposit to Ratio, Net Interest Margin, Operating Costs and Operating Income, and the conditions of the COVID-19 pandemic to the dependent variable (Y), namely the performance of Bank Papua as measured using Return On Assets.

ROA equation as follows:

$$Y = \beta_0 + \beta_1 X_t + \beta_2 X_t + \beta_3 X_t + \beta_4 X_t + \beta_5 X_t + \epsilon$$

Description: Y (ROA (%));  $X_1$  (Distribution of KUR in the agribusiness sector (rupiah));  $X_2$  (LDR (%));  $X_3$  (NIM (%));  $X_4$  (BOPO (%));  $X_5$  (COVID-19 Pandemic); 1 (During the COVID-19 Pandemic); 0 (Before the COVID-19 Pandemic).

The model obtained needs to be evaluated based on three criteria, namely statistical, econometric, and economic criteria. The f-test was conducted to determine the effect of the independent variables simultaneously on the dependent variable and to determine the effect of the independent variables partially on the dependent variable using the t-test. Furthermore, the Determinant Coefficient test (R2) is carried out to find out how much the Return On Assets variable can be explained by the independent variables used in the model. The diversity level of the 0 < R2 < 1 model is getting closer to 1, the better the model used because it can represent actual conditions.

This study uses time series data so that the classical assumption test is carried out to determine the

robustness of the model and that the resulting regression equation has accuracy in estimation, is not biased, and is consistent. The classic assumption tests in multiple linear regression are normality, heteroscedasticity, multicollinearity, and autocorrelation. The autocorrelation test tests the relationship between observations by comparing the observed Durbin Watson (DW) value and the table value. If the DW value is around number 2, accept H0 because there is no autocorrelation. The heteroscedasticity test uses the Breush-Pagan-Godfrey test to test the dissimilarity of variance between the residuals in the observations. If Fcount>alpha level is used, then heteroscedasticity does not occur. Then do the Multicollinearity test using Variance Inflation Factors (VIFs). If the VIFs value is below ten, there is no correlation between variables. The Normality test uses the Jargue-Bera test to test whether the data is normally distributed.

Based on the description that has been explained, the research hypothesis is:

Credit is the main source of bank income, so an increase in KUR distribution positively affects Return On Assets. Increasing lending will increase bank profits. Credit distribution has a positive effect on Return On Assets (Afriyie, 2013).

H1 = The KUR channeling coefficient for the Agribsins sector of Bank Papua has a positive and significant effect on Return On Assets.

Loan Deprosito to Ratio is a ratio that shows the ability of Bank Papua to manage funds collected from the public. The higher the loan deposit to ratio, the higher the credit disbursed. Credit is the main source of bank income, so an increase in lending will increase bank profits. Banks with a high loan deposit-to-ratio ratio have high-interest income resulting in low income (Zaineldeen, 2018).

H2 = The loan deposit to ratio coefficient has a positive and significant effect on return on assets.

Net interest margin is a ratio that shows how much productive assets are provided to earn income. The bank's profit is the difference between the interest income earned and the interest expense paid. The greater the difference obtained, the greater the profit obtained by the bank, or it can be interpreted that the greater the net interest income obtained indicates that the bank is more efficient so that the return on assets obtained also increases.

H3 = Net interest margin positively and significantly affects asset returns.

Operating expenses and operating income show bank efficiency, which is calculated based on how much operational expenses the bank incurs against the income earned. The higher operating expenses and operating income indicates that the bank is inefficient in running its business because it will reduce profits or higher costs will reduce profits. Operating expenses and operating income hurt return on assets (Saleh and Afifa, 2020).

H4 = Operating expenses and operating income negatively and significantly affect the return on assets.

During the COVID-19 pandemic, the economy became sluggish due to social restrictions set by the government, and the supply of raw materials for industry was reduced, so many businesses were not operating. It causes layoffs so that many people lose their income. In a crisis like this, it also impacts banks because it reduces demand for credit and increases defaults, reducing return on assets. COVID-19 harms return on assets (Elnahass et al. 2021).

H5 = The condition of the COVID-19 pandemic harms return on assets

# RESULTS

Descriptive statistics on the distribution of KUR in the agribusiness sector and the factors that influence the return on assets of Bank Papua are presented in Table 1. Based on Table 1, all the variables used have an average value greater than the standard deviation or the level of deviation except for return on assets. However, it is insignificant, namely 0,002 percent, so it is ignored. It is suspected that the lowest return on, the lowest net interest margin, and operational costs and operational income with the highest values, respectively -2,990 percent, 7,570 percent, and 134,120 percent occurred in the same period, namely the second quarter of 2017. It shows a good performance. Bad because Bank Papua has suffered losses, allegedly due to high defaults and operational expenses, which impact low-interest income, reducing the return on assets and even reaching

a value below 0. Inefficient banks are managed by bad management (Yin et al. 2013).

The conditions of the COVID-19 pandemic used as a dummy variable in Table 1 show the variable return on assets, distribution of KUR in the agribusiness sector, loan deposit to ratio was higher during the COVID-19 pandemic and the lowest operating expenses and operating income while the highest net interest margin before the COVID-19 pandemic. It is suspected that this is to reduce the increase in the spread of COVID-19, the government has implemented PSBB. However, this policy has an impact on slowing down the economy because many people have lost their jobs, reducing their income. This condition also impacts banking because it reduces the debtor's ability to repay loans so that banks, as business-oriented institutions, will be more efficient in running their business by reducing distribution. Under these conditions, the steps taken by the bank are to reduce distribution. During a crisis, banks do not need to limit the role of asset transformation and liquidity creation because it will reduce economic growth (Thakor, 2018).

In addition, the variable return on assets, KUR distribution in the agribusiness sector, loan deposit to ratio, and operating expenses and operating income, which showed a better value during the COVID-19 pandemic, was suspected of having a policy regarding KUR distribution schemes and low-interest rates by setting subsidies. KUR interest is 0 percent, which means that all KUR interest expenses are borne by the government so that it can provide a stimulus for banks not to reduce KUR distribution and reduce the burden of paying interest for MSME actors. The government carried out this policy because MSMEs can absorb a larger workforce as a source of foreign exchange and support for economic stability. In addition, for banks, the COVID-19 pandemic is not a financial system problem because when COVID-19 ends, and the PSBB is lifted, economic activity will recover so that people will return to the bank to borrow venture capital. Government support is critical in continuing bank lending during times of crisis (Košak et al. 2015).

The classical assumptions were put forward to test the robustness of the model used in Table 2. It was found that there was no autocorrelation problem with the Durbin Watson (DW) value obtained DW 1,8760 < DU 2,0520 and F-statistic value 0,9630 > 0,005. The heteroscedasticity test was carried out to determine

the dissimilarity of variance and residuals between observations. The F-stat Prob value is 0,6978 > 0,05, so the residual is unaffected by the model's independent variables. The multicollinearity test shows that the VIF value < 10 means multicollinearity does not occur. The Jarque-Bera test used to test Normality obtained a value of 0.2686 and a probability of 0,8743 > 0,05, indicating that the residuals are not normally distributed. Based on the results of the classical assumption test performed, it is concluded that there are no problems in multiple linear regression.

# Effect of Agribusiness Sector KUR Distribution on return on assets

The estimation results of multiple linear regression on the variable coefficient of KUR distribution in the agribusiness sector have a positive and insignificant effect on return on assets at a significant level of 10% (P-value=0,8643>0,10). The results obtained are not in line with the initial hypothesis. It shows that the characteristics of agribusiness products that are easily damaged, dependence on supplying products on a season, less than optimal marketing of production results, traditional cultivation, lack of added value, and high production costs are considered by banks as institutions of business-oriented finance to increase lending to the agribusiness sector. According to (Zelenović et al. 2018), the difficulty in accessing finance is due to the low turnover of invested funds and the profits generated by agricultural primary production (Jolovic et al. 2014). The low lending in the agribusiness sector is due to inconsistent agricultural policies; inefficient subsidy programs; lack of regulation; lack of alternative sources of finance; lenders' knowledge and perceptions of risk in agribusiness; weak agribusiness market; borrower psychology, knowledge, and access to information.

 Table 1. Descriptive Statistics of KUR distribution in the agribusiness sector and the factors influencing its return on assets

Variable	Mean	St. Dev	Min	Max	Before Pandemic	During Pandemic
ROA (%)	1.317	1.319	-2.990	3.440	1.02	1.73
Bank Papua agribusiness sector KUR distribution (Million/Rupiah)	24.265	1.046	21.719	25.229	29.794	49.424
NIM (%)	6.710	0.459	5.910	7.570	6.99	6.31
LDR (%)	73.644	9.549	59.320	88.140	71.60	76.54
BOPO (%)	88.428	13.329	67.260	134.120	91.89	85.53

Table 2. The estimated results of KUR distribution in the agribusiness sector and the factors that influence Bank Papua's ROA

Variable	Coefisien	Prob
C	8.183568	0.0118
Bank Papua agribusiness sector KUR distribution (Million/Rupiah)	0.016066	0.8463
Loan deposito to ratio (%)	0.230773	0.2011
Beban operasiona dan pendapatan oeprasiona (%)	-0.093081	0.0000***
Net interst margin (%)	0.000199	0.9707
COVID-19	0.254662	0.1475
F-Squared	0.871524	
F-hit	56.9382	
Prob>F	0.000000	
Obs	29	

Description: \*\*\* significant at the real level  $\alpha = 1\%$ 

The influence of KUR in the agribusiness sector is insignificant, indicating that banks still benefit from other credit sources, which, according to the bank's assessment, are profitable with a small risk of default. Suppose it is associated with the formulation of the problem in this study. In that case, the distribution of KUR in the agribusiness sector has decreased, while KUR in non-agribusiness trade has experienced a significant increase yearly. According to several studies, the total distribution of MSME loans positively and significantly affects banking company profits (Shahid et al. 2019). Lack of bank participation in agribusiness financing by limiting financing to agribusiness producers reduces the return on assets. An increase in the volume of agribusiness financing is negatively related to the return on banking assets (Gasanov et al. 2019).

Distribution is not significant, not only influenced by the supply factor because of the characteristics of the primary product of the agribusiness sector but also influenced by the demand side. Farmers finance the purchase of modern inputs with cash from nonagricultural activities and the sales of crops (Adjognon et al. 2017). Increased credit costs due to farmers paying agricultural insurance premiums upfront when disbursing credit, reducing credit uptake (Gallenstein et al. 2019). Farmers fear losing assets due to credit rationing and weather risks Ndegwa et al. (2020). Credit transaction costs (Saifullahi and Haruna. 2012) cause a decrease in the profitability and sustainability of financial institutions.

Agribusiness sector actors need capital to buy relatively expensive production facilities. It causes the government to make various efforts to increase the production and productivity of the agribusiness sector. The agricultural sector is a potential market but provides smaller profits, so it is not a particular priority for some banks, so the government's role is needed to provide financial support (Grivins et al. 2021). The government hopes that using the interest subsidy pattern can increase the profits obtained by agribusiness actors and profits for channeling banks because they avoid the risk of default. An interest subsidy program that did not conduct initial consultations with the financial sector when the program was designed did not motivate banks to increase loans to the agribusiness sector (Zelenović et al. 2018).

#### Effect of loan deposits to ratio on return on assets

The coefficient of the variable loan deposit ratio has a positive and insignificant effect on return on assets at a significant level of 10% (P-value=0,2011>0.10). The loan deposit to ratio shows the bank's ability to manage public deposits to generate profit. However, the research results show that Bank Papua has a low loan deposit-to-ratio or high liquidity but has not used it productively to increase assets, thereby reducing profits. Regional government-owned banks have low liquidity creation. It will harm the bank because it pays the cost of holding larger assets (Tang et al. 2021). To gain profits, the bank will increase loans with lowinterest rates. Excess liquidity causes bank managers to lower loan interest rates to facilitate loan increases resulting in lower net interest margins (Nguyen et al. 2020). So it was concluded that to obtain high profits due to holding high liquidity, Bank Papua must increase lending.

However, in savings activities, they are collected by banks as liquid assets, while loans are channeled as illiquid assets. So that banks must provide sufficient funds for the short-term needs of depositors so that they do not experience liquidity risk if they want to take their money at any time. Banks must maintain the right level of liquidity when depositors want to withdraw their funds in the event of a shock by arranging credit distribution if liquidity is predicted to increase (Goldstein and Pauzner, 2005). Inflation can also affect the insignificant effect because it affects the mobilization of deposits, causing the money spent to increase and less money saved. Inflation negatively affects savings (Ünvan dan Yakubu, 2020).

The COVID-19 pandemic caused a weakening of the economy. To stabilize this condition, the government issued various policies. Uncertainty over economic policies leads to liquidation hoarding (Nguyen et al. 2020), which is indicated by increasing household savings by consuming less or working longer hours to deal with unexpected contingencies (Levenko, 2020), reducing spending and increasing savings (Aaberge et al. 2017), as well as causing a decrease in demand for credit (Berger et al. 2022) Unstable economic conditions also created doubts for banks to increase lending. The concern of debtors and credit analysts about deteriorating economic conditions, even though the economy is not in a recession, has led to

a decrease in lending, especially to banks with a high level of credit risk (Gissler et al. 2016), resulting in a decrease in return on assets and lower cost efficiency in large banks (Elnahass et al. 2021). In addition, nonperforming loans reduce the ability of banks to provide further credit facilities to customers. Low returns on non-performing loans force bank owners to absorb losses related to assets and release profitable loans in the following period (Özlem Dursun-de Neef and Schandlba, 2021).

# Effect of Operating Expenses and Operating Income On Return On Assets

The coefficient of operating expenses has a negative and significant effect on return on assets at a real level of 1% (P-Value=0,000<0,01). In line with Juwita et al. (2018), decreasing operational expenses and operational income increases return on assets. Operating expenses and operating income are one of the bank's efficiency ratios by measuring the ratio of operational expenses financed to operating income earned so that high operating expenses and operating income indicate that the bank is inefficient or experiencing losses, this indicates a structural problem in banking (Fungáčová et al. 2020), or it can be said that Bank Papua has not been efficient in managing its business by minimizing costs and increasing revenue. Local governmentowned banks are more efficient in converting inputs into outputs than making profits (Yin et al. 2013).

In addition, operating expenses and operating income, which have a negative and significant effect, can be due to government intervention to serve the needs of the Regional Government as shareholders reducing bank efficiency. The presence of the government as a controller increases the average cost (Mutarindwa et al. 2021). Bank Papua must reduce its dependence on government funds to be more flexible in its business activities. Private banks are efficient because they face more severe budget constraints compared to state-owned banks, which perform losses because the government heavily capitalizes them (Yin, 2013).

Banks are intermediary institutions, but the quality of bank intermediation is measured by its efficiency in converting inputs into outputs and minimizing costs or maximizing profits. A more efficient bank is assumed to be able to drive growth because it can select optimal projects to be funded while estimating the cost of capital. Decreasing input productivity has an impact on changes in capital efficiency and labor use (Chang et al. 2012), decreased loan interest rates, lower loan repayments and increased funding costs (Feng and Wang. 2018), decreased loans due to liquidity risk (Cornett et al. 2011), decreased profit growth (Chen, 2020), and suboptimal use of fixed assets, increased bad loans and inefficient labor costs (Moradi-Motlagh and Jubb. 2020).

### Effect of Net Interest Margin On Return On Assets

The results of multiple linear regression estimation of the net interest margin coefficient have a positive and insignificant effect on return on assets at the 10% significance level (P-value=0.9709>0.10). The net interest margin shows the difference between the interest income generated by the bank and the interest costs paid to depositors as lenders for the amount of assets that generate interest income used for the continuity of the bank's business. It occurs when liquidity is low because depositors pay less interest, so the bank earns a high profit. However, the results obtained are net interest margin which has a positive but not significant effect, meaning that the net interest margin increases return on assets but is not significant due to high liquidity in this study, causing the net interest margin obtained to be low this happens because Papuan banks set interest rates The low one. Interest rates are positively related to interest income (Borio et al. 2017).

A high NIM reflects a good bank performance because it can manage to earn assets to generate greater interest income from lending activities. Bank market power, operational costs, credit risk, and ownership of liquid assets increase the margin difference between interest rates on loans and deposits (Birchwood et al. 2017). The positive and insignificant relationship can also be influenced by monetary policy. The central bank issues monetary policy to stabilize the economy by setting high savings interest rates to increase public interest in saving. But this policy, monetary policy has a positive effect on the net interest margin (Nguyen et al. 2020).

Effect of the COVID-19 Pandemic on return on assets The estimation of multiple linear regression of the COVID-19 pandemic condition coefficient on return on assets results shows a positive and insignificant effect at the 10% significance level (P-value = 0,1475>0,10). The COVID-19 pandemic outbreak affected all aspects, including banks. The Large-Scale Social Restrictions Policy (PSBB) imposed by the government as an effort to suppress the spread of COVID-19 had an impact on economic uncertainty. It causes banks to worry about credit risk due to the inability of debtors to pay their obligations and triggers a cautious reaction on the part of depositors and financial intermediary partners, causing banks to reduce lending. Government policies like this increase systemic risk by undermining bank financial performance (accounting-based and marketbased) and financial stability by increasing default, liquidity, and asset risks (Elnahass et al. 2021).

However, this insignificant effect shows that Bank Papua's services are still running while maintaining cost efficiency amid the COVID-19 pandemic because this situation is not a systemic banking problem. Higher bank risks reduce cost efficiency but increase profits (Saifullahi and Haruna, 2012). Risk contributes more to revenue than inflating costs. Banks continue to support the government to improve the economy even in a crisis. Countries that imposed lockdowns during the COVID-19 pandemic saw an increase in small business loans that relied on government-guaranteed loans, increased allowance for losses, and problem loans (Beck and Keil, 2022). However, it differs in countries that did not enforce lockdowns during the COVID-19 pandemic. Government policies during COVID-19 led to increased returns on stocks and deposits and lower non-performing loans (Demir and Danisman, 2021). The impact of the COVID-19 pandemic is not only on profits but is sustainable on bank capital because depositors are careful to use banking services. Increasing credit withdrawals by companies at risk of reducing the capital adequacy ratio, reducing income and profitability impacts bank stability because it limits the bank intermediary function, especially in small and state-owned banks (Shabir et al. 2023)

#### **Managerial Implications**

In carrying out its business activities, Bank Papua must be more productive in converting inputs into outputs by reducing operational expenses and increasing operating income to obtain greater profits. The results of the descriptive statistics obtained show that the lowest return on assets and net interest margin occurs in the same period with the highest operating expenses and is supported by estimation results that are in line with the hypothesis and theory but not significant while operating expenses have a significant effect on return on assets. It can increase the distribution of KUR in the agribusiness sector because it is a potential economic sector in Papua and West Papua to be developed so that it can carry out one of its functions with the government to improve the regional economy. In addition, as a sector that can survive when shocks occur, this is shown by the results of the description that during the COVID-19 pandemic, there was an increase in KUR distribution in the agribusiness sector, and COVID had a positive but not significant effect on return on assets.

# CONCLUSIONS AND RECOMMENDATIONS

#### Conclusions

The productivity of Bank Papua as a mediating institution that collects deposits and distributes credit is shown by how well the management manages the funds lent by the government and the community to generate profits, as indicated by the return on assets. Negative and insignificant operating expenses and operating income show that Bank Papua is inefficient in running the business, so it suffers losses. The distribution of KUR in the agribusiness sector, loan deposit to ratio, net interest margin, and the COVID-19 pandemic were not significant in this study as an indication of the low ability of Bank Papua to manage public and government funds, so it suffered losses due to paying interest expenses that were greater than the income earned so that reduce the profit of Bank Papua.

#### Recommendations

Bank Papua needs to consider the scheme for distributing KUR in the agribusiness sector, starting from upstream to downstream, because the results found that the distribution of KUR in the agribusiness sector has a positive but not significant effect so that it can be ensured that Bank Papua has a market but has not been utilized and promotes KUR distribution so that it has an impact on increasing bank profits. In addition, it is necessary to conduct research related to the performance of Bank Papua by using measurement ratios other than ROA.

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# REFERENCES

- Aaberge R, Liu K, Zhu Y. 2017. Political uncertainty and household savings. *Journal of Comparative Economics* 45(1): 154–170. https://doi. org/10.1016/j.jce.2015.12.011.
- Adjognon SG, Liverpool-Tasie LSO and Reardon TA .2017. Agricultural input credit in Sub-Saharan Africa: Telling myth from facts. *Food Policy* 67: 93–105. https://doi.org/10.1016/j. foodpol.2016.09.014.
- Afriyie HO. 2013. Credit risk management and profitability of rural banks in the brong ahafo region of Ghana. *European Journal of Business and Management* 5(24): 24–34.
- Beck T and Keil J. 2022. Have banks caught corona? effects of covid on lending in the U.S. *Journal of Corporate Finance* 72(Februari 2022): 102160.
- Berger AN. Guedhami O. Kim HH, Li X. 2022. Economic policy uncertainty and bank liquidity hoarding. *Journal of Financial Intermediation* 49(1): 100893. https://doi.org/10.1016/j. jfi.2020.100893.
- Birchwood A, Brei M, Noel DM. 2017. Interest margins and bank regulation in Central America and the Caribbean. *Journal of Banking and Finance* 85(1): 56–68. https://doi.org/10.1016/j. jbankfin.2017.08.003.
- Borio C, Gambacorta L, Hofmann B. 2017. The influence of monetary policy on bank profitability. *International Finance* 20(1): pp. 48–63. https://doi.org/10.1111/infi.12104.
- [BPS] Badan Pusat Statistika Provinsi Papua. 2021. Produk Domestik Regional Bruto Propinsi Papua 2016-2021. Jayapura: Badan Pusat Statistik Papua
- [BPS] Badan Pusat Statistika Provinsi Papua Barat 2021. Produk Domestik Regional Bruto Propinsi Papua Barat 2016-2021. Manokwari: Badan Pusat Statistik Papua Barat
- [BPS] Badan Pusat Statistika Provinsi Papua. 2022. Statistik Potensi Desa Propinsi Papua. Jayapura: Badan Pusat Statistik Papua
- [BPS] Badan Pusat Statistika Provinsi Papua Barat 2022. *Statistik Potensi Desa Propinsi Papua Barat*. Manokwari: Badan Pusat Statistik Papua Barat
- Chandio AA and Jiang Y. 2018. Determinants of credit constraints: evidence from sindh, Pakistan. *Emerging Markets Finance and Trade* 54(15): 3401–3410. https://doi.org/10.1080/154049

6X.2018.1481743.

- Chang TP, Hu JL, Chou RY, Sun L.2012. The sources of bank productivity growth in China during 2002-2009: A disaggregation view. *Journal of Banking and Finance* 36(7): 1997–2006. https:// doi.org/10.1016/j.jbankfin.2012.03.003.
- Chen C, Liu B, Wang Z. 2023. Can land transfer relax credit constraints? Evidence from China. *Economic Modelling* 122(February): 106248. https://doi.org/10.1016/j.econmod.2023.106248.
- Cornett MM. McNutt JJ, Strahan PE. Tehranian H. 2011. Liquidity risk management and credit supply in the financial crisis. *Journal of Financial Economics* 101(2): 297–312. https:// doi.org/10.1016/j.jfineco.2011.03.001.
- Dang TC, Nguyen TB, Nguyen TY, Trinh TH, Banh TT. 2021. Factors affecting the profitability of listed commercial banks in Vietnam: Does agriculture finance matter?.*AgBioForum* 23(1): 32–41.
- Demir E and Danisman G O. 2021. Banking sector reactions to COVID-19: The role of bankspecific factors and government policy responses. *Research in International Business* and Finance 58(June 2020): 101508. https://doi. org/10.1016/j.ribaf.2021.101508.
- Ekinci R and Poyraz G. 2019. The effect of credit risk on financial performance of deposit banks in Turkey. *Procedia Computer Science* 158(1): 979–987. https://doi.org/10.1016/j. procs.2019.09.139.
- Elnahass M, Trinh VQ and Li T. 2021. Global banking stability in the shadow of Covid-19 outbreak. Journal of International Financial Markets, Institutions and Money 72(1): 101322. https:// doi.org/10.1016/j.intfin.2021.101322.
- Feng G and Wang C. 2018. Why European banks are less profitable than U.S. banks: A decomposition approach. *Journal of Banking and Finance*. 90(1);1–16. https://doi.org/10.1016/j. jbankfin.2018.02.017.
- Fernández-VJ, Pablo GQ, Keith K, Juan RR. 2015. Fiscal volatility shocks and economic activity', *American Economic Review* 105(11):3352– 3384. https://doi.org/10.1257/aer.20121236.
- Fungáčová Z, Klein P O ,Weill L.2020. Persistent and transient inefficiency: Explaining the low efficiency of Chinese big banks. *China Economic Review* 59(1): 101368. https://doi.org/10.1016/j. chieco.2019.101368.
- Gallenstein RA, Mishra K, Sam AG, Miranda MJ. 2019. Willingness to pay for insured loans in Northern

Ghana. *Journal of Agricultural Economics* 70(3): 640–662. https://doi.org/10.1111/1477-9552.12317.

- Gasanov O, Lisitskaya T. Kovaleva N, Maziy V, Mitina I. 2019. Formation of funding sources for agribusiness organizations. *IOP Conference Series: Earth and Environmental Science* 403(1). https://doi.org/10.1088/1755-1315/403/1/012075.
- Gissler S, Oldfather J, Ruffino, D. 2016. Lending on hold: Regulatory uncertainty and bank lending standards. *Journal of Monetary Economics* 81(2013): 89–101. https://doi.org/10.1016/j. jmoneco.2016.03.011.
- Goldstein I and Pauzner A. 2005. Demand-deposit contracts and the probability of bank runs. *Journal of Finance* 60(3): 1293–1327. https:// doi.org/10.1111/j.1540-6261.2005.00762.x.
- Grivins M, Thorsøe MH, Maye D. 2021. Financial subjectivities in the agricultural sector: A comparative analysis of relations between farmers and banks in Latvia, Denmark and the UK. *Journal of Rural Studies* 86(February 2020): 117–126. https://doi.org/10.1016/j. jrurstud.2021.06.006.
- Hackney J. 2023. Small business lending in financial crises: the role of government-guaranteed loans. *Review of Finance* 27(1): 247–287. https://doi. org/10.1093/rof/rfac002.
- Iski N, Kusnadi N, Harianto H. 2016. Pengaruh kredit terhadap pendapatan petani kopi arabika di Kabupaten Aceh Tengah Provinsi Aceh. Jurnal Manajemen dan Agribisnis 13(2):132–144. https://doi.org/10.17358/jma.13.2.132.
- Jang Y, Lee W J, Hadley B. 2020. Interactive effects of business environment assessment and institutional programs on opportunity entrepreneurship. *Sustainability (Switzerland)* 12(13); 1–18. https://doi.org/10.3390/ su12135280.
- Jolovic A, Njegovan Z, Cavlin M. 2014. Financing of the agriculture in Serbia: State and prospects. *Ekonomika poljoprivrede* 61(1): 127–137. https://doi.org/10.5937/ekopolj1401127j.
- Juwita S, Raga PDJ, Prasetyo FI, Riawan E. 2018. Effect of car (capital adequacy ratio), bopo (operational costs on operational revenues) and ldr (loan to deposit ratio) to roa (return on assets) PD Bank Pasar Bogor City. *International Journal of Innovative Science and Research Technology* 3(6): 305–309.

- Košak M, Li S, Loncarski I, Marine M. 2015. Quality of bank capital and bank lending behavior during the global financial crisis. *International Review* of *Financial Analysis* 37(1): 168–183. https:// doi.org/10.1016/j.irfa.2014.11.008.
- Levenko N. 2020. Perceived uncertainty as a key driver of household saving. *International Review of Economics and Finance* 65(March 2019): 126– 145. https://doi.org/10.1016/j.iref.2019.10.005.
- Moradi-Motlagh A and Jubb C. 2020. Examining irresponsible lending using non-radial inefficiency measures: Evidence from Australian banks. *Economic Analysis and Policy* 66(1): 96– 108. https://doi.org/10.1016/j.eap.2020.03.003.
- Mutarindwa S, Siraj I, Stephan A. 2021. Ownership and bank efficiency in Africa: True fixed effects stochastic frontier analysis. *Journal of Financial Stability* 54:100886. https://doi.org/10.1016/j. jfs.2021.100886.
- Ndegwa MK. Shee A, Turvey CG, You L. 2020. Uptake of insurance-embedded credit in presence of credit rationing: evidence from a randomized controlled trial in Kenya. *Agricultural Finance Review* 80(5): 745–766. https://doi.org/10.1108/ AFR-10-2019-0116.
- Nguyen CP, Le T H, Su TD. 2020. Economic policy uncertainty and credit growth: Evidence from a global sample. *Research in International Business and Finance* 51(March 2019): 101118. https://doi.org/10.1016/j.ribaf.2019.101118.
- Nguyen TVH, Pham TTT, Nguyen CP, Nguyen TC, Nguyen BT. 2020. Excess liquidity and net interest margins: Evidence from Vietnamese banks. *Journal of Economics and Business*, 110(1): 105893. https://doi.org/10.1016/j. jeconbus.2020.105893.
- Olszak M and Pipień M. 2016. Cross-country linkages as determinants of procyclicality of loan loss provisions. *European Journal of Finance*. 22(11): 965–984. https://doi.org/10.1080/13518 47X.2014.983138.
- Özlem Dursun-de Neef H and Schandlbauer A 2021. COVID-19 and lending responses of European banks. *Journal of Banking and Finance* 133(1). https://doi.org/10.1016/j.jbankfin.2021.106236.
- Saghaian S, Mohammadi H and Mohammadi M. 2022.
  Factors affecting success of entrepreneurship in agribusinesses: evidence from the City of Mashhad, Iran. *Sustainability (Switzerland)* 14(13): 1–12. https://doi.org/10.3390/ su14137700.

- Saifullahi SI and Haruna MA. 2012. An analysis of farmers access to formal credit in the rural areas of Nigeria. *African Journal of Agricultural Research* 7(47): 6249–6253. https://doi. org/10.5897/ajar11.788.
- Saleh I and Afifa AM. 2020. The effect of credit risk, liquidity risk and bank capital on bank profitability: Evidence from an emerging market. *Cogent Economics and Finance* 8(1). https://doi. org/10.1080/23322039.2020.1814509.
- Shabir M, Jiang P, Wang W, Izik O. 2023. COVID-19 pandemic impact on banking sector: A crosscountry analysis. *Journal of Multinational Financial Management* 67(July 2022). https:// doi.org/10.1016/j.mulfin.2023.100784.
- Shahid MS, Gul F and Naheed K. 2019. Credit risk and financial performance of banks: evidence from Pakistan Muhammad Sadiq Shahid 1 Faid Gul 2 Khawar Naheed 3. *International Journal of Business & Management* 14(June): 144–155.
- Tang Y, Li ZhiyongChen J, Deng Chao. 2021. Liquidity creation cyclicality, capital regulation and interbank credit: Evidence from Chinese commercial banks. *Pacific Basin Finance Journal*, 67(January): 101523. https://doi.

org/10.1016/j.pacfin.2021.101523.

- Thakor AV. 2018. Post-crisis regulatory reform in banking: Address insolvency risk, not illiquidity!. *Journal of Financial Stability* 37:107–111. https://doi.org/10.1016/j.jfs.2018.03.009.
- Ünvan YA and Yakubu IN. 2020. Do bank-specific factors drive bank deposits in Ghana?. *Journal of Computational and Applied Mathematics* 376(1): 112827. https://doi.org/10.1016/j. cam.2020.112827.
- Yin H, Yang J, Mehran J. 2013. An empirical study of bank efficiency in China after WTO accession. *Global Finance Journal* 24(2): 153–170. https:// doi.org/10.1016/j.gfj.2013.07.001.
- Zaineldeen M. 2018. Liquidity and profitability analysis in the palestinian banking sector. *Journal of International Trade, Logistics and Law* 4(1): 44–53.
- Zelenović V,Vojinović Ž, Cvijanović D. 2018. Serbian agriculture loans with the aim of improving the current situation. *Ekonomika poljoprivrede* 65(1): 323–336. https://doi.org/10.5937/ ekopolj1801323z.