

BANK HEALTH ANALYSIS USING THE CAMEL RATIO ON THE PERFORMANCE OF CREDIT CARD ISSUING BANKS

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ABSTRACT

This research was conducted on 23 credit card issuing banks with years of observation from 2016 to 2021, researchers conducted an analysis using the CAMELS Ratio. Data is obtained from annual reports issued by the banking sector registered with the Financial Services Authority and then processed using eviews-8. Analysis is carried out partially or simultaneously. From the results of data processing, it is obtained that the CAMEL ratio is based on Bank Indonesia and Financial Services Authority Regulations from 2016 to 2021. It can be concluded that 32 credit card issuing banks have received very healthy predicates for the ratio Capital Adequacy Ratio (CAR), Non-Performing Loans (NPL), Net profit Margin (NPM), Operating Expense Ratio (OER) and Loan to Deposit Ratio (LDR). Except for Return on Assets (ROA) in a healthy predicate. Partially from the CAMEL ratio there are several ratios that have a negative influence on bank performance as measured by ROA, namely Capital (CAR), asset quality (NPL) and earnings as measured by (EOR). While management (NPM), earnings as measured by NIM and liquidity as measured by LDR have a positive effect on bank performance as measured by ROA. Simultaneously all ratios namely Capital, Asset Quality, Management, earnings, and liquidity have a positive influence on bank performance fundamentally.

Keywords: CAMELS, CAR, NPL, NPM, ROA, OER, LDR.

INTRODUCTION

In the economy of a country, the banking sector has a very strategic and important role, because the banking sector connects trade transactions around the world through the role of banks in each country by using the latest financial information technology so that transactions can be completed immediately. Therefore, the banking sector must really maintain the level of trust from entrepreneurs and also the community. In addition, banking has a very important role in supporting the real sector of the economy, namely functioning as a mediator between parties who have excess funds and those who need funds. So that the real sector can grow, the impact of a healthy bank is that the inflation rate will be suppressed and the Gross Domestic Product (GDP) will increase.

The role of banks in the economy of a nation is very important, namely as an indicator of a country's economy so that a healthy bank will strengthen the economic activities of a nation. Conversely, economic activity will be unhealthy if the banking sector is not healthy.

According to Law Number 10 of 1998 article 1 concerning banking states: "*that a bank is a business entity that collects funds from the public in the form of savings and distributes them to the public in the form of credit and or other forms in order to improve the standard of living of the common people*".^[1]

According to A. Abdurahman (1999:2)^[2] "*a bank is a type of financial institution that carries out various services, such as providing loans, circulating currency, supervising*

currency, acting as a place for storing valuable objects, financing company business and others".

One of the banking activities in improving its performance is issuing or issuing credit cards in collaboration with international credit card principals. That is, banks provide credit card facilities to their customers with certain requirements for transactions with merchants, so that customers are facilitated in making economic transactions with merchants around the world. The banking sector that issues credit cards and has been approved by Bank Indonesia is 23 conventional banks, 1 Sharia-based bank and 1 Financial Company with the following details Table 1:

Table 1 CREDIT CARD ISSUING BANKS			
No	Issuing bank name	No	Issuing bank name
1	Bank Rakyat Indonesia (pesero)	14	Bank HSBC Indonesia
2	Bank Mandiri (pesero)	15	Bank Standard Charter
3	Bank Central Asia	16	Bank ICBC Indonesia
4	Bank Negara Indonesia 1946 (pesero)	17	Bank KB Bukopin
5	Bank Maybank	18	Bank MNC Indonesia
6	Pan Indonesia Bank	19	Bank Sinar Mas
7	Bank CIMB Niaga	20	Bank QNB Indonesia
8	Bank Danamon Indonesia	21	Bank Mayapada
9	Bank Permata	22	Bank DBS Indonesia
10	Bank Mega	23	Bank Shinhan Indonesia
11	Bank Citi Bank Indonesia	24	AEON Credit Service
12	Bank UOB Indonesia	25	Bank BNI Syariah
13	Bank OCBC NISP		

Source: Bank Indonesia (2020) (www.bi.go.id)^[3]

Note: Bank BNI Syariah has merged to become Bank Syariah Indonesia (BSI), and AEON Credit Service is not a bank, so in this study only 23 banks were the object.

Credit card principals circulating in Indonesia are:

Table 2 CREDIT CARD PRINCIPALS		
No	Principal Name	Network name
1	PT. JCB International	JCB
2	PT. Mastercard Indonesia	Master Card
3	PT. Visa Worldwide Indonesia	Visa Card
4	PT. Union Pay Indonesia	CUP
5	American Express	Amex

Source: www.bi.go.id

Of the five principals that people like most in Indonesia, they are Master Card and Visa Card because they have a fairly extensive network. Bank Indonesia (BI) noted that the number of credit cards in circulation in Indonesia reached 16.58 million units in June 2022. This number increased by 0.84% compared to June 2021 which amounted to 16.56 million credit cards. Even though it has increased on an annual basis, the number of credit cards circulating in the country has experienced a downward trend since the Covid-19 pandemic hit. This condition occurs along with the shift of society to using electronic money (e-wallet). The reason is that electronic money is considered safer from the transmission of Covid-19 because it has minimal direct contact, is efficient, and has lots of promos. Furthermore, the value of credit card transactions reached IDR 149.18 billion in the sixth month of 2022. The number jumped 34.35% compared to 2021 which amounted to IDR 19.81 trillion. Meanwhile, the volume of credit card transactions was recorded at 27.93 million times in June 2022. This number experienced an increase of 20.26% compared to the same period in

2021 of 23.22 million times. Credit card growth from 2012 to June 2022 can be seen in Figure 1:



Figure 1
NUMBER OF INDONESIAN CREDIT CARDS

Source: Bank Indonesia (www.bi.go.id)

The banking industry has earned a net profit of IDR 78.17 trillion as of July 2021, growing 9.68% compared to the same period in 2020 of IDR 71.27 trillion. The increase in net profit was supported by the high growth profitability of the large bank groups. Referring to statistical data on Indonesian banking until July 2021 released by the Financial Services Authority (OJK), the growth in banking net profit was contributed by net interest income (NII) which grew 12.89% on an annual basis (year on year/YoY) to IDR 245.43 trillion.

The growth in banking net profit until July 2021 has accelerated compared to growth until June 2021 which was 7.92% (YoY). This is in line with the improvement in lending to the banking industry which is getting higher. *"Judging from the increased net interest margin (NIM), it shows that banks are widening their NIM to get additional profit,"* said Director of Research at the Center for Reform on Economics (CORE) Indonesia Piter Abdullah Redjalam to Investor Daily, Monday (4/10/21).

OJK data explained that based on the Commercial Banks for Business Activities (BUKU) group, only the BUKU IV group or large banks experienced net profit growth. Meanwhile, the BUKU II and BUKU III groups recorded contractions. BUKU IV net profit as of July 2021 reached IDR 56.55 trillion, a high jump of 23.61% compared to the same period last year of IDR 45.75 trillion. Meanwhile, the BUKU III group experienced a contraction of 16.61% until July 2021, from IDR 19.08 trillion for the same period in 2020 to IDR 15.91 trillion. The deepest contraction occurred in the net profit of the mini-bank group or BUKU II, namely minus 46.02%, to IDR 2.51 trillion as of July 2021. Meanwhile, net profit for the same period in 2020 was IDR 4.65 trillion Figure 2.

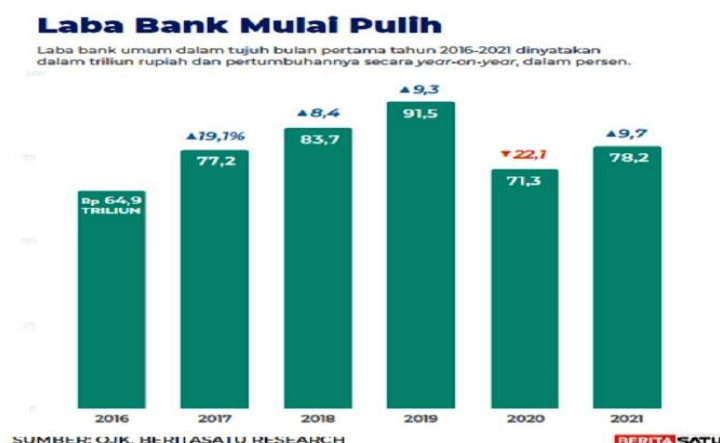


Figure 2

BANK PROFITS ARE STARTING TO RECOVER

Source: OJK (www.ojk.go.id) ^[4]

Piter said, the bank widened the NIM to get additional profits. Since last year, he continued, banks have lowered deposit rates sufficiently to keep up with the decline in BI's benchmark interest rate, but on the other hand banks have not reduced lending rates much. When viewed from NIM, the large bank group still recorded the highest NIM of 5.17% as of July 2021, followed by BUKU II NIM of 4.62%, and BUKU III NIM of 3.51%.

Overall, the banking industry's NIM was at the level of 4.64%, up from last year's 4.44%. *"On the other hand, banks can also place their funds in SBN (State Securities). SBN offers quite high yields, amidst falling deposit rates,"* added Piter. Until the end of 2021, the banking profitability trend can grow even higher. These are mainly large banks. *"Bank net profit will vary between banks. However, overall it is the BUKU IV banks that will get the biggest profit,"* said Piter.

When viewed based on ownership, the association of state-owned banks (Himbara) recorded the highest net profit growth, reaching 27.31% (YoY) to IDR 34.73 trillion as of July 2021. Next are regional development banks (BPD), which pocket a net profit of IDR 8.02 trillion, or an increase of 8.38% (YoY).

For National Private Commercial Banks (NPCB) posted a net profit of IDR 33.01 trillion, up 8.34% (YoY) until July 2021. Meanwhile, net profit from Foreign Bank Branch Offices (FBBO) of IDR 2.41 trillion, experienced a sharp correction inside, namely minus 60.62% (YoY). <https://investor.id/finance/265991/laba-bersih-perbankan-tumbuh-968> ^[5]
 Editor: **Gora Kunjana** (gora_kunjana@investor.co.id) ^[6]

In this study, bank health will be analyzed using the CAMEL ratio on the performance of credit card issuing banks in Indonesia. To improve bank performance, Bank Indonesia issued 3 regulatory relaxations in 2018, namely:

1. Expansion of the averaging Statutory Reserves (GWM) as stipulated in Bank Indonesia Regulation (PBI) No. 19/6/PBI/2017^[7] concerning the fifth amendment to PBI No. 15/15/PBI/2013 [8] concerning Statutory Reserves for Commercial Banks in Rupiah and Foreign Currency for Conventional Commercial Banks. Becomes 6.50 %.
2. Liquidation calculations are added with corporate bond instruments with certain ratings which are included in the financing element so that the FFR (Financing to Funding Ratio) is in the range of 80% to 92%.
3. The LTV ratio is adjusted to the conditions of each area. LTV regulations will be published July 2018.

These three relaxations have actually been included in the CAMEL analysis, therefore in this study the researcher wanted to know:

What is the influence of bank health as measured using the CAMEL Ratio on the performance of credit card issuing banks in Indonesia?

THEORETICAL BASIS

Bank Health

A healthy bank is a bank that carries out its functions properly, including: maintaining public trust, carrying out the intermediary function, smoothing payment traffic and implementing government policies, especially in the monetary sector. According to Bank Indonesia Regulation No. 13/I/2011^[9] concerning the assessment of the soundness level of commercial banks, banks are required to carry out a self-assessment using a risk-based bank rating approach individually or consolidated.

According to the Circular Letter of the Board of Directors of Bank Indonesia No. 6/10/PBI/2004^[10] dated 12 April 2004 regarding the rating of the soundness level of commercial banks and Bank Indonesia Regulation that "*the soundness level of a bank is an assessment of the condition of a bank's financial statements at a certain period and time in accordance with Bank Indonesia Standards*", Bank Regulation Indonesia No. 10/1/PBI/2004^[11] article 1 paragraph 4 and Bank Indonesia Circular Letter No. 13/24/DPNP^[12] dated 25 October 2011 regarding the procedures for assessing the soundness level of commercial banks, assessed by a qualitative approach to the factors that affect the condition and development of banks in this case are capital factors, productive assets, management factors, profitability factors, factors liquidity and sensitivity factors are known as CAMELS which can be seen in Table 3.

Table 3 BANK SOUNDNESS LEVEL ACCORDING TO CAMELS	
CAMELS Credit Score	Predicate
81 % - 100 %	Healthy
66 % ≤ 81 %	Healthy enough
55 % ≤ 66 %	Un healthy
00 % ≤ 55 %	Not healthy

Source: Circular Letter BI No. 13/24/DPNP 25 Oktober 2011^[12]

Regulation of the Financial Services Authority (POJK) No.8/POJK.03/2014^[13] explains that bank soundness is a means of supervisory authority over banks. Changes in business and economic complexity that are related directly or indirectly have the potential to arise risks that can originate from the bank or from external banks that affect the soundness of the bank.

Bank soundness level according to POJK No. 8/POJK.03/2014 in the form of the results of an assessment of the condition of a bank which is carried out based on the risk and performance of the bank or is called a Risk-based Bank Rating. Measuring the soundness level of a bank includes using the CAMEL (Capital, Asset Quality, Management, Earning and Liquidity) method

Scope of CAMEL

Bank health assessment includes:

(a) Capital (b) Asset Quality (c) Management (d) Earnings (e) Liquidity

Capital

The ability of a bank to provide capital in accordance with the minimum capital requirement of a bank is called solvency. The solvency level of a bank is measured by the Capital Adequacy Ratio (CAR) based on Bank Indonesia regulations for a minimum CAR of 8%, the CAR calculation is as follows Table 4:

$$\text{CAR} = \frac{\text{Equity}}{\text{Total Risk Weighted Assets}} \times 100 \quad \text{Credit score} = \frac{\text{CAR}}{0.1\%} + 1$$

CAR Assessment Criteria

Table 4 CAR ASSESSMENT CRITERIA		
CAR Ratio (%)	Credit Value (%)	Predicate
≥ 8	81 – 100	Healthy
$6.5 \leq 8$	66 < 81	Healthy enough
≤ 6.5	< 51	Not Healthy

Source: Taswan (2006:363) ^[14]

Asset quality

Non-performing loans are a comparison between non-performing loans and the amount of credit extended to society as a whole. According to Hariyani (2010) the NPL ratio is a ratio that shows the ability of bank management to manage non-performing loans provided by banks. The higher the NPL, the worse the bank's credit quality, which results in the bank being in a state of greater trouble.

One of the risks faced by banks is the risk of non-payment of credit that has been given to debtors or is called credit risk. According to Ghazali in Adicondro ^[15] (2015) credit risk is:

"the risks faced by banks due to uncertainty or failure of installment payments (counterparties) in fulfilling their obligations".

Credit risk can be divided into 3 risks, namely: 1. Default Risk, 2. Exposure Risk and 3. Recovery Risk. Credit risk includes non-performing loans.

Non-performing loan (NPL) is a problem loan, namely the debtor is unable to fulfill the loan and interest arrears payments within the time period agreed in the agreement. This is also explained in Financial Accounting Standards No. 31 (revised 2000) ^[16] which states that:

"Non-performing credit is generally a credit whose payment of principal/or interest installments has passed ninety or more days after the due date or credit whose timely payment is very doubtful."

According to Iswi Hariyani (2010) ^[17], the ratio of NPL or non-performing loans is a ratio that shows the ability of bank management to manage non-performing loans provided by banks. The higher the NPL, the worse the quality of bank credit, which causes the number of non-performing loans to increase.

According to Mudrajat Kuncoro & Suhardjono (2012) ^[18] based on the codification of Bank Indonesia Regulations: NPL is a ratio that measures the ratio of the number of non-performing loans to total credit, namely:

1. Credit is credit extended to third parties (excluding credit to other banks)
2. Non-performing loans are loans with substandard (SS), doubtful (D) and loss (L) qualities.
3. Non-performing loans are calculated on a gross basis.
4. Figures are calculated per position (not annualized)

Non-performing credit describes a situation where the approval of credit returns is at risk of failure, even tends to lead to or experiences potential losses. It should be noted that it is wrong to think that credit problems are always due to customer error. Non-performing loans can be caused by various things originating from customers, internal conditions and lenders Table 5.

Included in non-performing loans are substandard loans, doubtful loans and bad loans. According to Bank Indonesia Circular No. 13/30/DPNP December 16 2011 ^[19], Non-Performing Loans can be calculated using the formula:

$$\text{NPL} = \frac{\text{Sub standard Credit} + \text{Doubtful Credit} + \text{Bed Credit}}{\text{Total Credit Granted}} \times 100$$

Table 5		
CRITERIA NPL		
Rating	Criteria	Information
1	$\text{NPL} < 2\%$	Very Good
2	$2\% \leq \text{NPL} \leq 5\%$	Good
3	$5\% \leq \text{NPL} \leq 8\%$	Quite Good
4	$8\% \leq \text{NPL} < 12\%$	Un Good
5	$\text{NPL} \geq 12\%$	Not Good

Source: Circular Letter Bank Indonesia No 13/30/DPNP

$$\text{Credit Value} = \frac{15,5\% - \text{NPL}}{0,15\%} \times 100\%$$

The criteria for assessing NPL according to Bank Indonesia regulation no. 15/2/PBI/2013 [20] as follows Table 6:

Table 6		
ASSESSMENT OF THE RATIO OF NON-PERFORMING LOANS		
Predicate	Rasio NPL (%)	Credit Value (%)
Healthy	$00,00 - \text{NPL} \leq 10,35$	$81 - 100$
Healthy enough	$10,35 < \text{NPL} \leq 12,60$	$66 \leq 81$
Unhealthy	$12,60 < \text{NPL} \leq 14,85$	$51 < 66$
Not healthy	$\text{NPL} > 14,85$	$00 \leq 51$

Source: Regulation Bank Indonesia No 15/2/PBI/2013

An increase in NPLs in large numbers can cause problems for the health of banks, therefore banks are required to always maintain credit not in a high NPL position.

Asset quality measures the strength of a financial institution against the loss of value in these assets. Asset quality with Non-Performing Loans (NPL), which measures a bank's ability to manage non-performing loans extended by banks. According to Bank Indonesia regulations, NPLs cannot be greater than 5%.

Management

Management quality shows management's ability to identify, measure, monitor and control the risks that arise through the bank's business policies and strategies to achieve targets. The success of management can be classified as healthy if it meets at least 81% of all aspects of measuring management capabilities. The Net Profit Margin (NPM) approach is used, which is a ratio to measure a bank's ability to generate net profit from its main

operating activities. The greater the NPM value, the more optimal the bank is in forming net profit.

$$\text{NPM} = \frac{\text{Net Profit}}{\text{Operating Profit}} \times 100$$

In accordance with Bank Indonesia regulation No. 6/23/DPNP^[21] of 2004 a bank is said to be healthy if the NPM ratio is > 81%. Credit Value = NPM Value.

Earnings

Judging from two things, namely the Net Interest Margin (NIM) and the Ratio of Operating Expenses to Operating Income (OER) as follows:

(1) Net Interest Margin (NIM) is a ratio used to measure the ability of bank management to manage its productive assets to earn net interest. According to Riyadi (2012)^[22] Net Interest Margin is the comparison between Interest Income (bank interest income) minus interest expense (bank interest costs that become expenses) divided by Average Interest Earnings assets (average earning assets used). The greater the NIM, the higher the interest income earned. According to the standards set by Bank Indonesia, the NIM ratio is > 6%.

Net Interest margin (NIM) is the ratio of Net Interest Income to interest assets is also known as “*net yield on interest earnings assets*”

$$\text{NIM} = \frac{(\text{Interest Received} - \text{Interest Paid})}{\text{Average Interested assets}}$$

Or

$$\text{NIM} = \frac{(\text{Investment return} - \text{Interest expenses})}{\text{Average earnings assets}}$$

Federal Financial Institutions Examination Council (FFIEC) release average NIM for all U.S. bank average 3,8% James (2018). (<https://investingnews.com>)^[23] Based on Bank Indonesia circular letter No. 6/23/DPNP dated 31 May 2004 NIM is calculated by the formula:

$$\text{NIM} = \frac{\text{Net interest income}}{\text{Average earning assets}} \times 100\%$$

NIM Credit Value = NIM Value

Positive NIM means the Investment strategy pays more interest than it costs. If the NIM is negative, it means that the investment strategy costs more than it make Table 7.

Table 7 CRITERIA FOR DETERMINING NET INTEREST MARGIN (NIM) LEVELS			
Rating	Ratio	Definition	Information
1	NIM > 3%	The Net Interest Margin is very high. Meaning that the NIM level is very healthy	Very Healthy
2	2% < NIM ≤ 3%	High Net Interest Margin, meaning a healthy NIM level	Healthy

3	$1,5\% < \text{NIM} \leq 2\%$	The Net Interest Margin is quite high, meaning that the NIM level is quite healthy	Healthy enough
4	$1\% < \text{NIM} \leq 1,5\%$	The low Net Interest Margin is negative, meaning that the NIM level is un healthy	Un Healthy
5	$\text{NIM} \leq 1\%$	The Net Interest Margin is very low or negative, meaning that the NIM level is Not healthy	Not Healthy

Source: Circular Letter Bank Indonesia No. 13/24/DPNP year 2011

(2) Diversification of income including the ability of banks to obtain fee-based income, and diversification of investment, as well as the application of accounting principles in recognizing income and expenses (Operating Expense Ratio – OER) Table 8.

$$\text{OER} = \frac{\text{Operating Expenses}}{\text{Operating Income}} \times 100 \text{ Credit Value} = \frac{100\% - \text{OER}}{0.08\%} + 1$$

OER Assessment Criteria

Table 8 OER ASSESSMENT CRITERIA		
OER Ratio (%)	Credit Value (%)	Predicate
< 93.52	81 – 100	Healthy
93.52 – 94.73	66 < 81	Healthy enough
94.73 – 95.92	51 < 66	Un Healthy
≥ 95.52	0 – 51	Not Healthy

Source: Taswan (2006:363) ^[14]

Liquidity

Liquidity shows the level of a bank's ability to pay off short-term obligations on time. According to Bank Indonesia, the criteria for liquidity at rank 1 are $50\% < \text{ratio} < 75\%$ Table 9.

$$\text{LDR} = \frac{\text{Loans granted}}{\text{Third Party Funds}} \times 100 \text{ Credit Value} = 1 + \frac{115\% - \text{LDR}}{1.00\%} \times 4$$

LDR Assessment Criteria

Table 9 LDR ASSESSMENT CRITERIA		
LDR Ratio (%)	Credit Value (%)	Predicate
< 94.75	81 – 100	Healthy
94.75 – 98.50	66 < 81	Healthy Enough
98.50 – 102.25	51 < 66	Un healthy
≥ 102.25	0 – 51	Not healthy

Source: Taswan (2006:363) ^[14]

Company Performance

The bank's financial performance is measured by profitability/rentability, namely the bank's ability to generate profits to support expansion and cover risks as well as measure the level of management efficiency and effectiveness in carrying out bank operations. In accordance with Bank Indonesia Regulation Number 91/PBI/2007 ^[23] the components of profitability are:

1. The ability to generate profits, the ability to support expansion and cover risks, as well as the level of efficiency.
2. Diversification of income including the ability of banks to obtain fee-based income, and diversification of investment, as well as the application of accounting principles in recognizing income and expenses.

In this study used Return on Assets with the formula:

$$\text{Return on Assets} = \frac{\text{Profit before tax}}{\text{Total assets}} \times 100 \%$$

$$\text{Credit Value} = \frac{\text{ROA}}{0.015\%} \times 100\%$$

Table 10		
CRITERIA FOR DETERMINING RETURN ON ASSET (ROA) RATINGS		
Rating	Criteria	Information
1	$\text{ROA} \leq 0\%$	Inadequate profitability
2	$0\% < \text{ROA} \leq 0,5\%$	Minus profitability is adequate
3	$0,5\% < \text{ROA} \leq 1,25\%$	Rentability is quite adequate
4	$1,25\% < \text{ROA} \leq 1,5\%$	Adequate profitability
5	$\text{ROA} > 1,5\%$	Rentability is very adequate

Source: Circular Letter Bank Indonesia No. 13/24/DPNP year 2011^[12]

Table 11		
CREDIT VALUE AND PREDICATE ROA		
ROA (%)	Credit Value Standard BI	Predicate
$= 1,215$	81 – 100	Healthy
$= 0,99 - < 1,215$	$66 \leq 81$	Healthy enough
$= 0,765 - < 0,999$	$51 \leq 66$	Un healthy
$< 0,765$	$0 \leq 51$	Not Healthy

Source: Circular Letter Bank Indonesia No 6/23/DPNP date 31 Mei 31, 2004^[20]

Company performance is the investor's perception of the company's level of success which is often associated with stock prices. High stock prices make the company value also high, and increase market confidence not only in the company's current performance but also in the company's prospects in the future Table 10 and Table 11.

Maximizing the value of the company also means maximizing the company's main goals. Increasing the value of the company is an achievement that is in accordance with the wishes of the owners, because with the increase in the value of the company, the welfare of the owners will also increase. In this study, company value is measured by ROA. Because the banks studied were not all publicly listed companies, they did not receive stock price information Table 12 & Figure 3.

RESEARCH METHODOLOGY

Table 12			
OPERATIONALIZATION OF VARIABLES			
VARIABLE	INDICATOR	SCALE	INSTRUMENT
Capital (X_1)	$\text{CAR} = \frac{\text{Equity}}{\text{Total Risk Weighted Assets}} \times 100$ CAR $\text{Credit Value} = \text{-----} + 1$	RATIO	Financial Statement

	0.1 %		
Assets Quality (X ₂)	Sub Standard Credit + Doubtful Credit + Bad Credit $\text{NPL} = \frac{\text{Sub Standard Credit + Doubtful Credit + Bad Credit}}{\text{Total Credit Granted}} \times 100$ $15,5\% - \text{NPL}$ $\text{Credit Value} = \frac{\text{Sub Standard Credit + Doubtful Credit + Bad Credit}}{0,15\%} \times 100$	RATIO	Financial Statement
Management (X ₃)	Net Profit $\text{NPM} = \frac{\text{Net Profit}}{\text{Operating Profit}} \times 100$ $\text{Credit Value} = \text{NPM}$	RATIO	Financial Statement
Earnings (X ₄)	Net Interest Income $\text{NIM} = \frac{\text{Net Interest Income}}{\text{Average earnings assets}} \times 100$ $\text{Credit Value} = \text{NIM}$ Operating Expenses $\text{OER} = \frac{\text{Operating Expenses}}{\text{Operating Income}} \times 100$ $100\% - \text{OER}$ $\text{Credit Value} = \frac{\text{Operating Income}}{0,08\%} + 1$	RATIO	Financial Statement
Liquidity (X ₅)	Loans Granted $\text{LDR} = \frac{\text{Loans Granted}}{\text{Third Party Fund}} \times 100$ $115\% - \text{LDR}$ $\text{Credit Value} = 1 + \frac{\text{Loans Granted}}{1,00\%} \times 4$	RATIO	Financial Statement
Company Performance (Y)	Profit before tax $\text{ROA} = \frac{\text{Profit before tax}}{\text{Total Assets}}$	RATIO	Financial Statement

Conceptual Paradigm

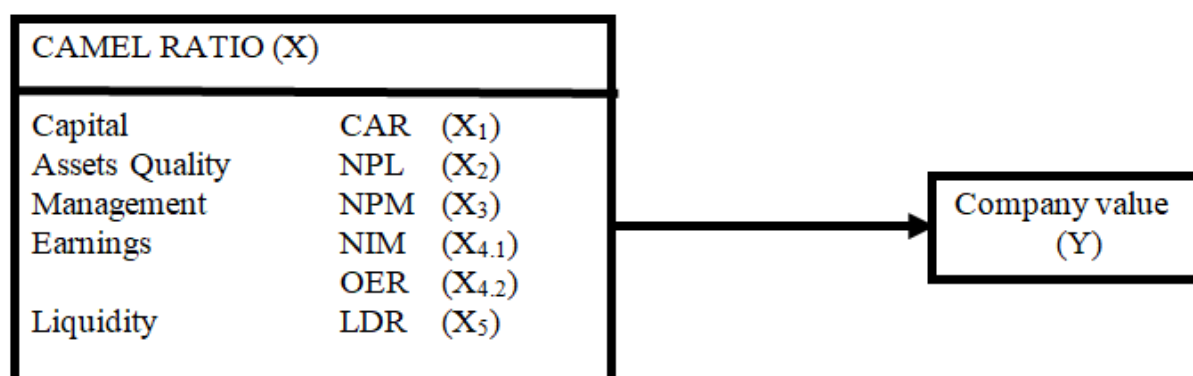


Figure 3
RESEARCH PARADIGM

Hypothesis Test Design

H₀₁: CAMEL Ratio has no partial effect on the performance of Card Issuing Banks Credit

H_{a1}: CAMEL Ratio partially affects the performance of Card Issuing Banks Credit

H₀₂: CAMEL Ratio simultaneously has no effect on the Performance of Credit Card Issuing Banks

Ha₂: The CAMEL Ratio simultaneously affects the Performance of Card Issuing Banks Credit

RESULTS AND DISCUSSION

The objects of this study are 23 credit card issuing banks in Indonesia with the following details Table 13:

No	Bank Name	No	Bank Name
1	Bank Rakyat Indonesia (pesero)	13	Bank OCBC NISP
2	Bank Mandiri (pesero)	14	Bank HSBC Indonesia
3	Bank Central Asia	15	Bank Standard Charter
4	Bank Negara Indonesia 1946 (pesero)	16	Bank ICBC Indonesia
5	Bank Maybank	17	Bank KB Bukopin
6	Pan Indonesia Bank	18	Bank MNC Indonesia
7	Bank CIMB Niaga	19	Bank Sinar Mas
8	Bank Danamon Indonesia	20	Bank QNB Indonesia
9	Bank Permata	21	Bank Mayapada
10	Bank Mega	22	Bank DBS Indonesia
11	Bank Citi Bank Indonesia	23	Bank Shinhan Indonesia
12	Bank UOB Indonesia		

Source: Bank Indonesia (2020) (www.bi.go.id)

Based on the financial reports that researchers obtained through the website <http://ojk.go.id>, all banks meet the requirements for processing, publishing financial reports from 2016 to 2021.

Descriptive Statistics

BANK NAME	CAR	NPL	NPM	NIM	EOR	LDR	ROA
BRI	22,59	0,91	77,38	7,25	431,93	86,91	3,24
MANDIRI	20,36	0,80	78,62	5,35	72,22	88,35	2,51
BCA	23,94	0,53	80,33	6,03	59,00	74,17	3,76
BNI 46	18,78	0,82	78,13	5,18	77,06	87,26	2,10
MAYBANK	20,96	2,20	77,61	4,22	86,64	87,19	1,18
PANIN	24,89	0,68	76,65	4,67	78,22	95,94	1,95
CIMB NIAGA	19,91	1,16	73,82	3,41	84,17	89,25	0,94
DANAMON	24,15	1,55	-151,85	6,02	79,74	91,10	2,18
PERMATA	23,95	1,45	80,59	4,17	100,81	82,01	-0,08
MEGA	25,86	1,57	80,32	5,35	72,83	61,62	2,97
CITI BANK	27,14	0,56	91,74	5,52	79,78	72,98	3,64
UOB IND	17,05	1,56	65,47	3,87	95,05	84,88	0,68
OCBC NISP	19,57	0,80	76,26	4,16	77,29	85,77	1,86
HSBC IND	24,57	1,63	79,49	4,52	84,04	93,71	1,53
STANDCHART	19,41	0,82	62,26	3,79	92,95	76,26	0,89
ICBC IND	19,79	2,30	11,30	2,48	89,80	104,82	0,66
KB BUKOPIN	13,41	4,70	124,86	2,26	121,69	96,31	-1,29
MNC	17,27	3,11	48,71	3,73	110,14	81,19	-1,00
SINAR MAS	19,39	2,24	47,46	6,64	100,17	70,40	0,68
QNB IND	23,13	1,88	85,93	1,95	138,53	83,36	-2,78
MAYAPADA	14,89	2,35	68,61	3,05	92,05	86,02	0,84
DBS IND	21,21	1,11	80,78	5,24	95,16	87,12	0,47
SHINHAN IND	47,19	1,88	82,55	3,82	85,92	205,08	1,16

Source: Annual Report Company and www.ojk.ac.id

Based on Table 14 and Table 15 of the 23 Credit card issuing banks, the following is obtained:

Table 15 AVERAGE FINANCIAL RATIO OF CREDIT CARD ISSUING BANKS FROM 2016 – 2021 COMPARED TO BANK INDONESIA STANDARDS			
No	Ratio	Average	Bank Indonesia Standard
1	CAR	22,15 %	Minimum 8 %
2	NPL	1,59 %	Maximum 5 %
3	NPM	64,22 %	Smaller than 81%
4	NIM	4,46 %	Smaller than 6%
5	OER	88,92 %	Smaller than 81%
6	LDR	90,07 %	Smaller than 75%
7	ROA	1,22 %	Greather than 1,5%

REGRESSION RESULTS WITH THE EVIEWS PROGRAM

Dependent Variable: ROA				
Method: Least Squares				
Date: 01/25/23 Time: 17:11				
Sample: 1 23				
Included observations: 23				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.490594	1.627308	-0.915988	0.3733
CAR	-0.019494	0.067214	-0.290033	0.7755
NPL	-0.583312	0.303594	-1.921354	0.0727
NPM	0.001734	0.004628	0.374652	0.7128
NIM	0.760439	0.236559	3.214584	0.0054
BOPO	-0.003082	0.003394	-0.908004	0.3773
LDR	0.009862	0.016093	0.612835	0.5486
R-squared	0.675489	Mean dependent var		1.221232
Adjusted R-squared	0.553798	S.D. dependent var		1.575103
S.E. of regression	1.052143	Akaike info criterion		3.185325
Sum squared resid	17.71208	Schwarz criterion		3.530910
Log likelihood	-29.63124	Hannan-Quinn criter.		3.272239
F-statistic	5.550833	Durbin-Watson stat		1.927906
Prob(F-statistic)	0.002808			

Estimation Command:

=====

LS ROA C CAR NPL NPM NIM BOPO LDR

Estimation Equation:

=====

$$ROA = C(1) + C(2) * CAR + C(3) * NPL + C(4) * NPM + C(5) * NIM + C(6) * BOPO + C(7) * LDR$$

Substituted Coefficients:

=====

$$ROA = -1.49059410191 - 0.0194941299376 * CAR - 0.583312311326 * NPL + 0.00173383395852 * NPM + 0.760438652038 * NIM - 0.00308191829047 * BOPO + 0.00986219211912 * LDR$$

Source: e Views

Bank Soundness Level Measurement Ratio

The CAMEL ratio is used to describe the good or bad financial position of a bank. The ratio is used to measure the soundness of a bank regarding Table 16 & Figure 4:

1. CAR (Capital Adequacy Ratio)

Table 16 CAPITAL ADEQUACY RATIO (CAR)											
No	Credit Card	Capital Adequacy Ratio (CAR)						CAR	Credit	Standard	Predicate
	Issuing Bank	2016	2017	2018	2019	2020	2021	AVG	Score	BI	
1	BRI	22,91	22,96	21,21	22,55	20,61	25,28	22,59	226,87	100	Healthy
2	MANDIRI	21,36	21,64	20,96	21,39	19,90	16,90	20,36	204,58	100	Healthy
3	BCA	21,90	23,06	23,39	23,80	25,83	25,66	23,94	240,40	100	Healthy
4	BNI 46	19,36	18,53	18,51	19,73	16,78	19,74	18,78	188,75	100	Healthy
5	MAYBANK	16,98	17,63	19,09	21,42	24,25	26,38	20,96	210,58	100	Healthy
6	PANIN	20,32	22,26	23,49	24,07	29,55	29,66	24,89	249,92	100	Healthy
7	CIMB NIAGA	17,71	18,22	19,00	21,00	21,24	22,29	19,91	200,10	100	Healthy
8	DANAMON	22,30	23,24	22,79	24,59	25,59	26,38	24,15	242,48	100	Healthy
9	PERMATA	15,64	18,12	19,44	19,89	35,68	34,94	23,95	240,52	100	Healthy
10	MEGA	26,21	24,11	22,79	23,68	31,04	27,30	25,86	259,55	100	Healthy
11	CITI BANK	30,00	27,48	23,53	26,68	28,26	26,87	27,14	272,37	100	Healthy
12	UOB IND	16,44	17,08	15,37	16,55	18,85	17,98	17,05	171,45	100	Healthy
13	OCBC NISP	18,28	17,51	17,63	19,10	21,98	22,94	19,57	196,73	100	Healthy
14	HSBC IND	23,69	22,49	20,79	23,65	26,70	30,07	24,57	246,65	100	Healthy
15	STANDCHART	16,59	19,51	16,60	17,14	24,02	22,62	19,41	195,13	100	Healthy
16	ICBC IND	15,86	17,72	16,21	21,64	23,87	23,41	19,79	198,85	100	Healthy
17	KB BUKOPIN	11,62	10,52	13,41	12,59	12,08	20,26	13,41	135,13	100	Healthy
18	MNC	19,54	12,58	16,27	15,16	15,75	24,31	17,27	173,68	100	Healthy
19	SINAR MAS	16,70	18,31	17,60	17,32	17,29	29,12	19,39	194,90	100	Healthy
20	QNB IND	16,46	20,30	26,50	21,08	24,53	29,92	23,13	232,32	100	Healthy
21	MAYAPADA	13,34	14,11	15,82	16,18	15,54	14,37	14,89	149,93	100	Healthy
22	DBS INDONESIA	20,21	20,65	18,99	20,04	23,26	24,10	21,21	213,08	100	Healthy
23	SHINHAN INDO	85,28	67,85	38,62	31,31	30,18	29,91	47,19	472,92	100	Healthy
	Average							22,15			

Source: www.ojk.ac.id

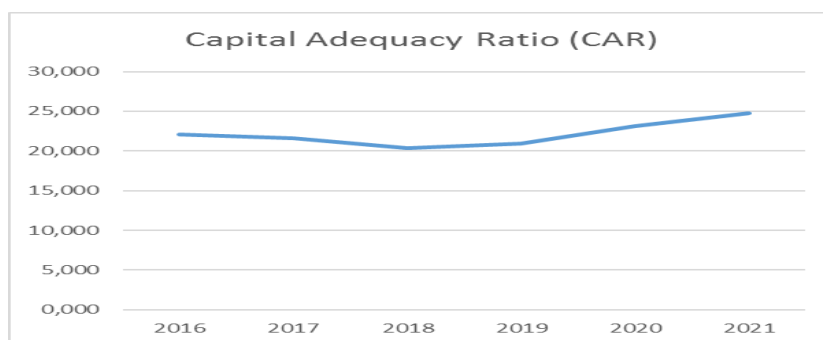


Figure 4
CHART CAR

ANALYSIS REGRESSION

$$ROA = C + \beta \text{ CAR} + \varepsilon$$

$$ROA = -1.49059410191 - 0.0194941299376 * \text{CAR} + 0.067214$$

$$ROA = -1.49 - 0.0194 \text{ CAR} + 0.067$$

$$ROA = -2,2424$$

ANALYSIS

For each increase in CAR by one unit, it will cause a decrease in ROA by -2.2424, meaning that if there is an increase in the CAR value, it will negatively affect the ROA value, that is, if the Capital Adequacy Ratio (KPM) is below the minimum limit, it will have a negative effect on ROA. All banks according to Bank Indonesia standards are in the healthy category, namely CAR above 8% Table 17 and Figure 5.

Non-Performing Loan (NPL)

No	Credit Card Issuing Bank	Non-Performing Loan (NPL)						NPL AVG	Credit Score	Standard BI	Predicate
		2016	2017	2018	2019	2020	2021				
1	BRI	1,09	0,88	0,92	1,04	0,80	0,70	0,91	97,30	100	Healthy
2	MANDIRI	1,38	1,06	0,67	0,84	0,43	0,41	0,80	98,01	100	Healthy
3	BCA	0,31	0,45	0,45	0,47	0,74	0,78	0,53	99,78	100	Healthy
4	BNI 46	0,44	0,70	0,85	1,25	0,95	0,73	0,82	97,87	100	Healthy
5	MAYBANK	2,37	1,83	1,57	2,11	2,52	2,82	2,20	88,64	100	Healthy
6	PANIN	0,47	0,52	0,74	0,97	0,50	0,90	0,68	98,78	100	Healthy
7	CIMB NIAGA	2,19	2,17	0,02	0,01	1,42	1,17	1,16	95,58	100	Healthy
8	DANAMON	1,96	1,88	2,05	2,15	0,91	0,37	1,55	92,98	100	Healthy
9	PERMATA	2,24	1,67	1,73	1,34	1,04	0,69	1,45	93,66	100	Healthy
10	MEGA	2,59	1,41	1,27	2,25	1,07	0,81	1,57	92,89	100	Healthy
11	CITI BANK	0,94	0,54	0,52	0,45	0,42	0,46	0,56	99,63	100	Healthy
12	UOB IND	2,61	0,93	0,89	1,19	1,51	2,22	1,56	92,94	100	Healthy
13	OCBC NISP	0,77	0,72	0,82	0,78	0,79	0,91	0,80	98,01	100	Healthy
14	HSBC IND	3,90	1,70	1,22	1,22	0,94	0,79	1,63	92,48	100	Healthy
15	STANDCHART	1,44	1,11	0,49	0,98	0,43	0,48	0,82	97,86	100	Healthy
16	ICBC IND	2,09	2,06	2,47	1,77	2,88	2,53	2,30	88,00	100	Healthy
17	KB BUKOPIN	2,79	6,37	4,75	4,45	4,95	4,91	4,70	71,98	100	Healthy
18	MNC	2,38	2,82	3,43	3,57	3,63	2,81	3,11	82,62	100	Healthy
19	SINAR MAS	1,47	2,34	2,73	4,33	1,39	1,18	2,24	88,40	100	Healthy
20	QNB IND	2,94	1,14	1,47	4,45	1,21	0,04	1,88	90,83	100	Healthy
21	MAYAPADA	1,22	4,20	3,26	1,63	1,60	2,17	2,35	87,69	100	Healthy
22	DBS INDONESIA	1,62	0,98	0,94	1,04	1,32	0,77	1,11	95,92	100	Healthy
23	SHINHAN INDO	0,92	0,74	0,43	1,98	4,24	2,95	1,88	90,82	100	Healthy
	Average							1,59			

Source: www.ojk.ac.id

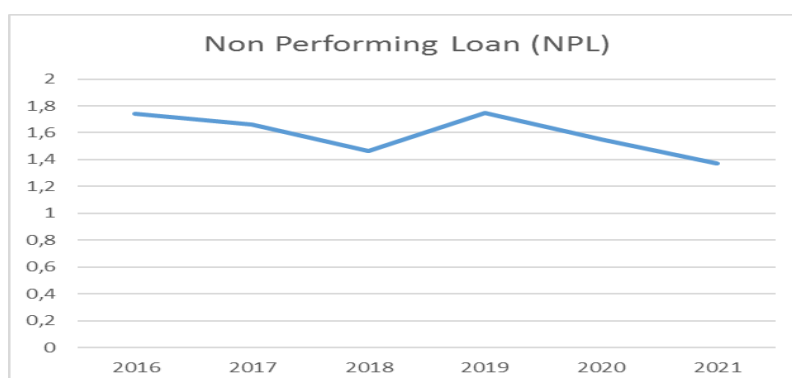


Figure 5
CHART NPL

ANALYSIS REGRESSION

$$ROA = C + \beta NPL + \varepsilon$$

$$ROA = -1.49 - 0.58 * NPL + 0.30$$

$$ROA = -1.49 - 0.58 * NPL + 0.30$$

$$ROA = -1.77$$

ANALYSIS

For every one unit increase in NPL, it will cause a decrease in ROA of -1.77 meaning that if a loan with doubtful quality, substandard, and loss is used to measure conditions when the debtor cannot pay installments according to the previous agreement, it will increase by one unit, it will have a negative effect to the value of ROA. NPLs according to the Bank Indonesia category are all in a healthy predicate Table 18 and Figure 6.

Net Profit Margin (NPM)

Table 18
NET PROFIT MARGIN (NPM)

No	Credit Card Issuing Bank	Net Profit Margin (NPM)						NPM AVG	Credit Score	Standard BI	Predicate
		2016	2017	2.018	2019	2020	2021				
1	BRI	77,05	78,75	77,71	79,07	70,03	81,69	77,38	77,38	81	Not healthy
2	MANDIRI	80,68	79,74	76,99	78,61	75,40	80,32	78,62	78,62	81	Not healthy
3	BCA	80,47	80,67	79,86	79,36	80,48	81,11	80,33	80,33	81	Not healthy
4	BNI 46	80,73	80,57	78,26	79,55	63,13	86,53	78,13	78,13	81	Not healthy
5	MAYBANK	79,31	74,73	80,05	86,33	68,38	76,83	77,61	77,61	81	Not healthy
6	PANIN	77,38	76,55	72,17	77,95	76,98	78,85	76,65	76,65	81	Not healthy
7	CIMB NIAGA	74,98	72,62	73,17	74,19	67,46	80,47	73,82	73,82	81	Not healthy
8	DANAMON	65,64	84,96	87,34	155,18	(390,39)	(913,82)	(151,85)	(151,85)	81	Not healthy
9	PERMATA	75,11	94,81	102,79	78,62	45,28	86,90	80,59	80,59	81	Not healthy
10	MEGA	78,81	81,05	81,89	78,57	80,54	81,08	80,32	80,32	81	Not healthy
11	CITI BANK	95,26	93,90	111,97	94,16	75,70	79,47	91,74	91,74	81	Healthy
12	UOB IND	72,64	25,45	74,83	74,37	66,61	78,89	65,47	65,47	81	Not healthy
13	OCBC NISP	76,41	75,61	75,67	75,60	75,59	78,65	76,26	76,26	81	Not healthy
14	HSBC IND	82,23	89,88	72,92	77,63	74,18	80,07	79,49	79,49	81	Not healthy
15	STANDCHART	47,64	56,91	65,27	64,82	60,62	78,29	62,26	62,26	81	Not healthy
16	ICBC IND	77,23	79,88	27,62	26,91	(228,24)	84,42	11,30	11,30	81	Not healthy
17	KB BUKOPIN	78,88	118,95	137,45	257,71	82,20	73,97	124,86	124,86	81	Healthy
18	MNC	17,72	74,72	71,10	32,04	45,88	50,80	48,71	48,71	81	Not healthy
19	SINAR MAS	73,47	75,61	53,10	(0,78)	(24,00)	107,38	47,46	47,46	81	Not

											healthy
20	QNB IND	75,39	83,34	81,02	12,44	156,46	106,90	85,93	85,93	81	Healthy
21	MAYAPADA	78,92	74,83	72,79	73,89	60,33	50,91	68,61	68,61	81	Not healthy
22	DBS INDONESIA	83,35	77,64	11,53	45,44	196,65	70,08	80,78	80,78	81	Not healthy
23	SHINHAN INDO	76,20	73,12	78,97	70,69	122,66	73,67	82,55	82,55	81	Healthy
	Average							64,22			

Source: www.ojk.ac.id

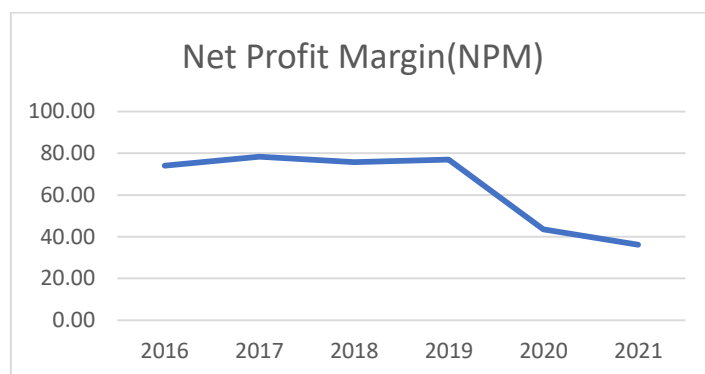


Figure 6
CHART NPM

ANALISIS REGRESSION

$$ROA = C + \beta \text{ NPM} + \varepsilon$$

$$ROA = -1.49 + 0.0017\text{NPM} + 0.0046$$

$$ROA = -1.48$$

ANALYSIS

For every one-unit NPM increase, it will cause a decrease in ROA of -1.48 meaning that if there is a bank's ability to generate net profit at a certain level of sales there is a decrease, it will have a negative effect on the value of ROA. NPM based on Bank Indonesia standards, there are only 4 categorized as healthy, the remaining 28 banks are unhealthy Table 19 and Figure 7.

Net Interest Margin (NIM)

Table 19 NET INTEREST MARGIN (NIM)											
No	Credit Card Issuing Bank	Net Interest Margin (NIM)						NIM AVG	Credit Score	Standard BI	Predicate
1	BRI	8,27	7,93	7,45	6,98	6,00	6,89	7,25	7,25	100	Healthy
2	MANDIRI	6,29	5,63	5,52	5,46	4,48	4,73	5,35	5,35	100	No healthy
3	BCA	6,81	6,19	6,13	6,24	5,70	5,10	6,03	6,03	100	Healthy
4	BNI 46	6,17	5,50	5,29	4,92	4,50	4,67	5,18	5,18	100	No healthy
5	MAYBANK	4,59	4,49	4,35	4,14	3,79	3,95	4,22	4,22	100	No healthy
6	PANIN	4,94	4,49	4,61	4,63	4,46	4,88	4,67	4,67	100	No healthy
7	CIMB NIAGA	5,47	5,45	0,05	0,05	4,75	4,71	3,41	3,41	100	No

											healthy
8	DANAMON	7,36	7,03	6,22	5,31	5,02	5,19	6,02	6,02	100	Healthy
9	PERMATA	3,93	3,99	4,11	4,39	4,56	4,02	4,17	4,17	100	No healthy
10	MEGA	7,01	5,80	5,19	4,90	4,42	4,75	5,35	5,35	100	No healthy
11	CITI BANK	6,24	6,36	5,79	5,91	4,80	4,03	5,52	5,52	100	No healthy
12	UOB IND	4,30	3,85	3,79	3,65	3,82	3,81	3,87	3,87	100	No healthy
13	OCBC NISP	4,62	4,47	4,15	3,95	3,96	3,82	4,16	4,16	100	No healthy
14	HSBC IND	5,43	5,25	4,64	4,39	4,03	3,36	4,52	4,52	100	No healthy
15	STANDCHART	4,87	4,26	4,38	4,32	2,95	1,94	3,79	3,79	100	No healthy
16	ICBC IND	3,24	2,99	2,35	2,00	1,96	2,36	2,48	2,48	100	No healthy
17	KB BUKOPIN	3,88	2,89	2,83	2,08	0,61	1,25	2,26	2,26	100	No healthy
18	MNC	3,28	3,04	4,10	4,17	4,01	3,80	3,73	3,73	100	No healthy
19	SINAR MAS	6,44	6,46	7,61	7,31	6,25	5,79	6,64	6,64	100	Healthy
20	QNB IND	2,25	1,22	1,73	2,56	1,61	2,34	1,95	1,95	100	No healthy
21	MAYAPADA	5,16	4,26	4,09	3,61	0,47	0,69	3,05	3,05	100	No healthy
22	DBS IND	4,96	5,21	5,35	5,25	5,53	5,13	5,24	5,24	100	No healthy
23	SHINHAN INDO	5,05	5,31	4,47	3,32	2,42	2,32	3,82	3,82	100	No healthy
	Average							4,46			

Source: www.ojk.ac.id

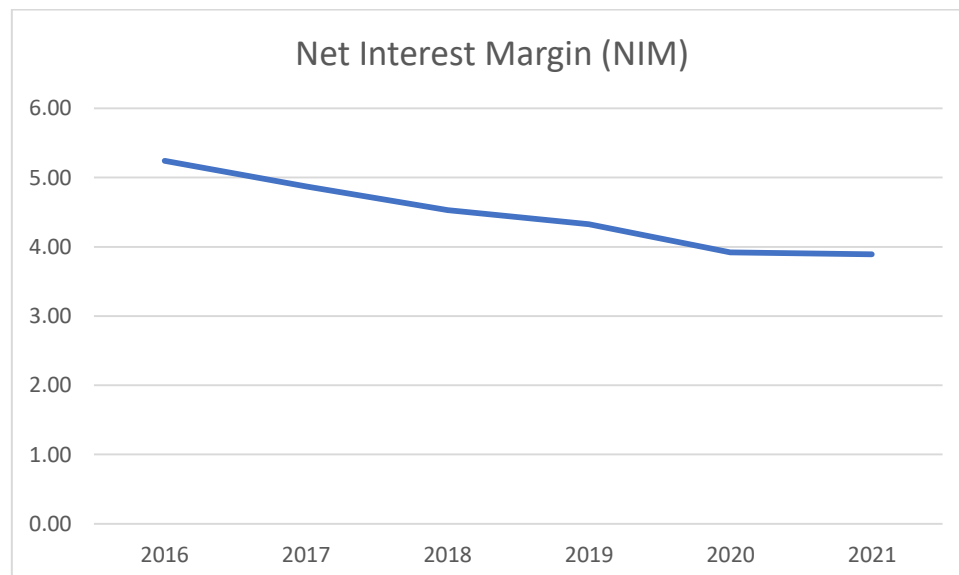


Figure 7
CHART NIM

ANALYSIS REGRESSION

$$ROA = C + \beta NIM + \varepsilon$$

$$ROA = -1.49 + 0.76NIM + 0.236$$

$$ROA = -0.49$$

ANALYSIS

For every increase in NIM by one unit, it will cause a decrease in ROA by -0.49, meaning that if there is a ratio between Net Interest Income and Average Earning Assets, it will increase by one unit, it will have a negative effect on the value of ROA Table 20 and Figure 8.

OER (Operating Expense Ratio)

Table 20
OPERATING EXPENSE RATIO (OER)

No	Credit Card	Operating Expense Ratio (OER)						OER	Credit	Standard	Predicate
	Issuing Bank	2016	2017	2018	2019	2020	2021	AVG	Score	BI	
1	BRI	68,69	69,14	68,48	70,10	81,22	74,30	71,99	351,15	100	Healthy
2	MANDIRI	80,94	71,17	66,48	67,44	80,03	67,26	72,22	348,25	100	Healthy
3	BCA	60,44	58,65	58,24	59,09	63,45	54,15	59,00	513,46	100	Healthy
4	BNI 46	73,59	70,99	70,15	73,16	93,31	81,18	77,06	287,71	100	Healthy
5	MAYBANK	85,81	86,97	83,85	89,28	88,98	84,94	86,64	168,02	100	Healthy
6	PANIN	82,87	78,79	75,54	77,04	76,50	78,60	78,22	273,21	100	Healthy
7	CIMB NIAGA	88,73	83,27	81,00	83,00	89,63	79,36	84,17	198,94	100	Healthy
8	DANAMON	77,25	70,85	72,11	82,71	86,62	88,87	79,74	254,31	100	Healthy
9	PERMATA	150,77	94,83	93,36	87,04	88,76	90,07	100,81	(9,06)	50	Not Healthy
10	MEGA	81,81	81,28	77,78	74,10	65,94	56,06	72,83	340,65	100	Healthy
11	CITI BANK	81,63	85,78	91,28	76,69	61,60	81,69	79,78	253,77	100	Healthy
12	UOB IND	95,90	97,81	97,08	97,06	92,26	90,19	95,05	62,88	65	Unwell
13	OCBC NISP	79,84	77,07	74,43	74,77	81,13	76,49	77,29	284,90	100	Healthy
14	HSBC IND	95,66	82,79	88,92	74,16	84,67	78,03	84,04	200,52	100	Healthy
15	STANDCHART	98,70	99,53	95,76	96,89	89,38	77,44	92,95	89,13	100	Healthy
16	ICBC IND	81,01	89,42	97,60	92,83	79,62	98,30	89,80	128,54	100	Healthy
17	KB BUKOPIN	94,36	99,04	98,41	98,98	168,10	171,23	121,69	(270,08)	50	Not Healthy
18	MNC	95,61	180,62	93,51	95,21	98,09	97,81	110,14	(125,77)	50	Not Healthy
19	SINAR MAS	86,23	88,94	97,62	119,43	111,70	97,12	100,17	(1,17)	50	Not Healthy
20	QNB IND	137,94	143,76	99,44	99,40	116,14	234,50	138,53	(480,63)	50	Not Healthy
21	MAYAPADA	83,08	87,20	92,61	92,16	98,41	98,83	92,05	100,40	100	Healthy
22	DBS INDONESIA	89,55	90,80	97,11	104,12	101,56	87,82	95,16	61,50	65	Unwell
23	SHINHAN INDO	92,67	72,77	76,06	93,80	92,27	87,93	85,92	177,04	100	Healthy
	Average							88,92			

Source: www.ojk.ac.id

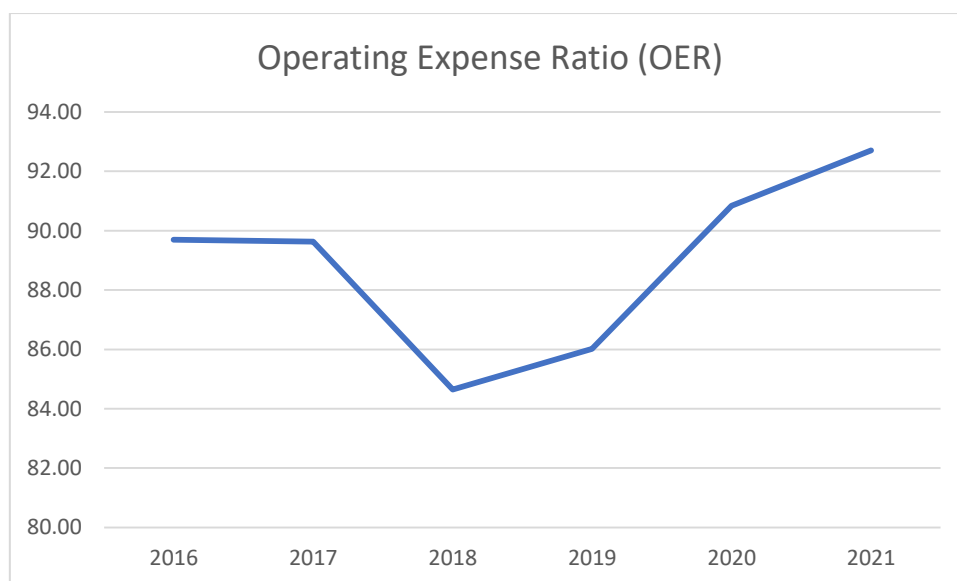


Figure 8
Chart Operating Expense Ratio (OER)

ANALYSIS REGRESSION

$$ROA = C + \beta BOPO + \varepsilon$$

$$ROA = -1.49 - 0.0030BOPO + 0.00339$$

$$ROA = -1.48$$

ANALISIS

For every increase in OER by one unit, it will cause a decrease in ROA by -0.49, meaning that if operational costs occur on operating income in one unit, it will have a negative effect on the value of ROA Table 21 & Figure 9.

LDR (Loan to Deposit Ratio)

Table 21
LOAN TO DEPOSIT RATIO (LDR)

No	Credit Card	Loan to Deposit Ratio (LDR)						LDR	Credit	Standard	Predicate
	Issuing Bank	2016	2017	2018	2019	2020	2021	AVG	Score	BI	
1	BRI	87,77	88,13	89,57	88,64	83,66	83,67	86,91	113,37	100	Healthy
2	MANDIRI	85,86	88,11	96,74	96,37	82,95	80,04	88,35	107,62	100	Healthy
3	BCA	77,00	78,22	81,58	80,47	65,77	61,96	74,17	164,33	100	Healthy
4	BNI 46	90,41	85,88	88,76	91,54	87,28	79,71	87,26	111,95	100	Healthy
5	MAYBANK	88,92	88,12	96,46	94,13	79,25	76,28	87,19	112,23	100	Healthy
6	PANIN	90,07	92,10	104,15	107,92	93,26	88,15	95,94	77,23	80	Quite Healthy
7	CIMB NIAGA	95,37	94,67	96,00	96,00	81,45	72,00	89,25	104,01	100	Healthy
8	DANAMON	91,00	94,95	93,29	98,85	84,56	83,96	91,10	96,59	100	Healthy
9	PERMATA	80,45	87,54	90,08	86,32	78,69	68,97	82,01	132,97	100	Healthy
10	MEGA	55,35	56,47	67,23	69,67	60,04	60,96	61,62	214,52	100	Healthy
11	CITI BANK	74,56	71,35	80,97	81,42	65,77	63,78	72,98	169,10	100	Healthy
12	UOB IND	90,11	83,57	93,04	90,92	76,87	74,78	84,88	121,47	100	Healthy
13	OCBC NISP	89,96	93,42	93,51	94,00	72,01	71,69	85,77	117,94	100	Healthy
14	HSBC IND	97,30	106,55	124,71	89,05	80,84	63,83	93,71	86,15	100	Healthy
15	STANDCHART	76,37	81,91	96,36	76,43	60,78	65,68	76,26	155,98	100	Healthy

16	ICBC IND	135,17	105,89	119,33	130,07	79,83	58,60	104,82	41,74	50	Not healthy
17	KB BUKOPIN	83,61	81,34	86,18	84,82	135,46	106,46	96,31	75,75	80	Quite Healthy
18	MNC	77,20	78,78	88,64	89,59	77,32	75,61	81,19	136,24	100	Healthy
19	SINAR MAS	77,47	80,57	84,24	81,95	56,97	41,22	70,40	179,39	100	Healthy
20	QNB IND	94,54	70,37	72,59	84,70	97,02	80,95	83,36	127,55	100	Healthy
21	MAYAPADA	91,40	90,08	91,83	93,34	77,80	71,65	86,02	116,93	100	Healthy
22	DBS INDONESIA	91,07	92,84	91,95	92,26	79,54	75,07	87,12	112,51	100	Healthy
23	SHINHAN INDO	108,21	240,22	295,76	237,49	188,56	160,21	205,08	(359,30)	50	Not healthy
	Average							90,07			

Source: www.ojk.ac.id

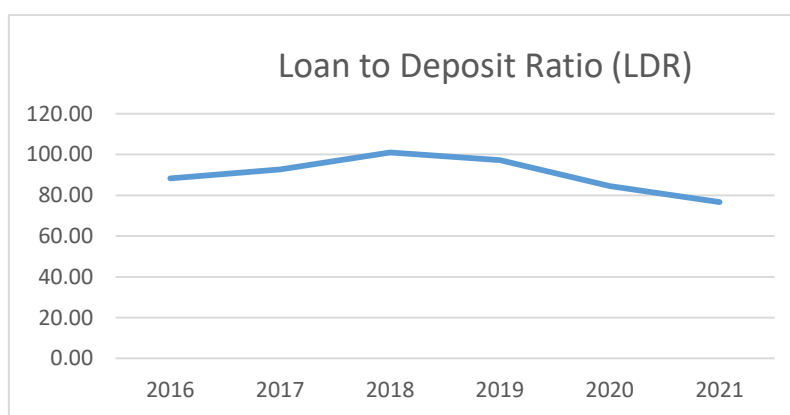


Figure 9
CHART LDR

ANALYSIS REGRESSION

$$ROA = C + \beta LDR + \varepsilon$$

$$ROA = -1.49 + 0.0098LDR + 0.0160$$

$$ROA = -1.376$$

ANALISIS

For every increase in LDR by one unit, it will cause a decrease in ROA by -1.376, meaning that if there is a composition of the amount of credit given compared to the amount of public funds and own capital, it will increase, it will have a negative effect on the value of ROA Table 22 & Figure 10.

Return on Asset (ROA)

Table 22 RETURN ON ASSETS (ROA)											
	Credit card	Return on Assets (ROA)						ROA	Credit	Standard	
No	Issuing Bank	2016	2017	2018	2019	2020	2021	AVG	Score	BI	Predicate
1	ICBC IND	3,84	3,69	3,68	3,50	1,98	2,72	3,24	215,67	100	Healthy
2	MANDIRI	1,95	2,72	3,17	3,03	1,64	2,53	2,51	167,11	100	Healthy
3	BCA	3,93	3,89	4,01	4,02	3,32	3,41	3,76	250,89	100	Healthy
4	BNI 46	2,69	2,75	2,78	2,42	0,54	1,43	2,10	140,11	100	Healthy
5	MAYBANK	1,48	1,23	1,48	1,09	0,82	1,00	1,18	78,89	80	Quite

											Healthy
6	PANIN	1,68	1,87	2,25	2,09	2,08	1,73	1,95	130,00	100	Healthy
7	CIMB NIAGA	1,19	1,67	0,02	0,02	0,99	1,75	0,94	62,67	65	Unwell
8	DANAMON	2,26	3,00	2,99	2,95	0,87	1,02	2,18	145,44	100	Healthy
9	PERMATA	(4,89)	0,61	0,78	1,30	0,97	0,73	(0,08)	(5,56)	50	Not Healthy
10	MEGA	2,36	2,24	2,47	2,90	3,64	4,22	2,97	198,11	100	Healthy
11	CITI BANK	4,14	4,34	3,22	4,67	3,91	1,56	3,64	242,67	100	Healthy
12	UOB IND	0,77	0,32	0,71	0,87	0,70	0,71	0,68	45,33	50	Not Healthy
13	OCBC NISP	1,85	1,96	2,10	2,22	1,47	1,55	1,86	123,89	100	Healthy
14	HSBC IND	0,47	1,78	1,13	2,72	1,56	1,53	1,53	102,11	100	Healthy
15	STANDCHART	0,58	0,32	1,26	0,70	1,82	0,63	0,89	59,00	65	Unwell
16	ICBC IND	1,61	0,83	0,28	0,22	0,05	0,96	0,66	43,89	50	Not Healthy
17	KB BUKOPIN	1,38	0,09	0,22	0,13	(4,61)	(4,93)	(1,29)	(85,78)	50	Not Healthy
18	MNC	0,11	(7,47)	0,74	0,27	0,15	0,18	(1,00)	(66,89)	50	Not Healthy
19	SINAR MAS	1,72	1,26	0,25	0,23	0,30	0,34	0,68	45,56	50	Not Healthy
20	QNB IND	(3,37)	(3,72)	0,12	0,02	(1,24)	(8,50)	(2,78)	(185,44)	50	Not Healthy
21	MAYAPADA	2,03	1,30	0,73	0,78	0,12	0,07	0,84	55,89	65	Unwell
22	DBS IND	1,30	1,02	0,05	(0,28)	(0,20)	0,95	0,47	31,56	50	Not Healthy
23	SHINHAN INDO	0,75	2,19	1,98	0,43	0,86	0,76	1,16	77,44	80	Quite Healthy
	Average							1,22			

Source: www.ojk.ac.id

In general, the average value of bank ROA is in a very healthy condition (SS), there are 4 banks which are in an unhealthy condition, namely; Permata Bank, KB Bukopin, MNC, QNB IND. There are 5 banks in Fairly Healthy condition (CS), namely: CMB NIAGA, UOB IND, STANDARHART, KBCIND, SINAR MAS, MAYAPADA. There are 2 banks in Healthy condition (S), namely: MAYBANK and SHINHAN INDO.

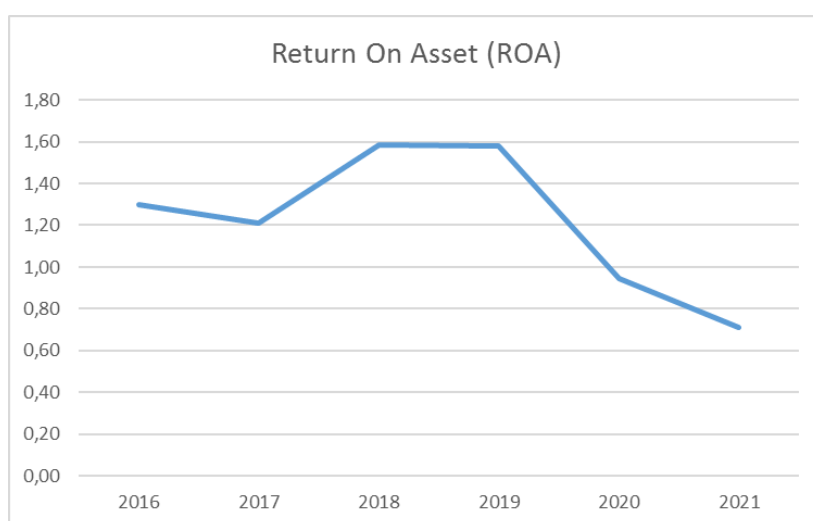


Figure 10
CHART ROA

ANALYSIS REGRESSIN MULTIPLE

$$ROA = C + \beta_1 CAR + \beta_2 NPL + \beta_3 NPM + \beta_4 NIM + \beta_5 BOPO + \beta_6 LDR + \varepsilon$$

$$ROA = -1.49 - 0.019*CAR - 0.58*NPL + 0.0017*NPM + 0.76*NIM - 0.0030BOPO + 0.0098*LDR + 1.627308$$

$$ROA = 0,3065$$

ANALYSIS

Each increase in CAR, NPL, NPM, NIM, BOPO, LDR by one unit will cause an increase in ROA of 0.3065 or it means that if there is an increase in the bank's soundness ratio, it will have a positive effect on the increase in the value of ROA.

CAMEL ANALYSIS

The soundness level of the bank as referred to in the ratio standard based on the provisions of Bank Indonesia with reference to the 5 criteria is produced as follows Table 23:

Table 23 AVERAGE BANK SOUNDNESS RATIO WITH CAMEL RATIO IN 2016 - 2021														
CRITERIA	CAR		NPL		NPM		NIM		OER		LDR		ROA	
	STD	RSH	STD	RSH	STD	RSH	STD	RSH	STD	RSH	STD	RSH	STD	RSH
Very Healthy	8,00	22,15	5,00	1,59	10,00	10,70	6,00	4,46	94,00	104,70	92,00	90,07	X	X
Healthy	X	X	X	X	X	X	X	X	X	X	X	X	1,50	1,22
Healthy Enough	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Un Healthy	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Not Healthy	X	X	X	X	X	X	X	X	X	X	X	X	X	X

In general, the CAR, NPL, NPM, NIM, BOPO ratios are in Very Healthy (SS) conditions by meeting the standards set by Bank Indonesia, except for the ROA ratio which is in Healthy (S) conditions.

CONCLUSION

1. The CAMEL ratio determined by PBI, based on the regression equation calculated from 2016 to 2021, it can be concluded that 32 credit card issuing banks received very healthy predicates for CAR, NPL, NPM, OER and LDR ratios. Except for ROA in a healthy predicate.
2. Partially from the CAMEL ratio, there are several ratios that have a negative effect on bank performance as measured by ROA, namely Capital (CAR), asset quality (NPL) and earnings as measured by (EOR). While management (NPM), earnings as measured by NIM and liquidity as measured by LDR have a positive effect on bank performance as measured by ROA.
3. Simultaneously all ratios namely Capital, Asset Quality, Management, earnings, and liquidity have a positive influence on the bank's performance fundamentally.

Suggestion

1. Given the weaknesses of the CAMEL ratio, namely (1) ratio management as measured by NPM and (2) Earnings measured by ROA and OER, it is hoped that there will be special attention for bank managers in order to increase income from main activities.
2. The ratio of Capital, Assets and Liquidity must be maintained or increased so that overall the CAMEL Ratio shows a positive influence on company value.

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