

# Factors Affecting Green Banking Implementation In Indonesia

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**Abstract**—The purpose of this study is to determine the impact of green banking and financial performance on bank profitability. The population of this study included banks listed on the Indonesia Stock Exchange (IDX) for the period 2016-2021 and those that published sustainable financial statements and presented a sample of eight banks using the purposive sampling method. The data analysis technique used is multiple regression analysis with panel data. The result of this research was that Green Banking had a significant on the Bank Profitability; Bank Size had an insignificant on Bank Profitability; NPL had a significant on Profitability, and BOPO had a significant on Profitability.

**Keywords**— *Green Banking, Bank Size, NPL, BOPO, and Bank Profitability*

## I. INTRODUCTION

Banking alone as an entity with visibility tall of course has trended for lift issues involvement and interest Public for getting attention customers [1]. Basically could be concluded that policy in applying Green Banking must have an interest related to activity operational or activities carried out banking daily[2].

If see Indonesia 's current *sustainability finance* this , in 2017 OJK cooperated with University Udayana established the Bali Center for *Sustainable Finance* (BCSF) which is pioneer center study development and research finance sustainable [3]. Achievements implementation carried out by OJK also received appreciation from the international world that is The 2019 *Sustainable Banking Network* (SBN) includes Indonesia and China in Step maturation in context regulation about finance sustainable that is be a categorized country as mover first. Survey GlobeScan and the *Global Reporting Initiative* (GRI) in book [4]also places Indonesia in the ranking top for truth / honesty information presented in report continuity submitted company to *public*.

Proven based on Thing the explained in the book [4] issued by OJK sees industry has respond with well recommend this . Eight incorporated banks in *first mover* has shape Initiative Finance Sustainable Indonesia (IKBI). Initiative this is commitment real from industry banking in support financing green. Moment this, IKBI membership has been develop to 15 institutions. (Research from the University of California, Berkeley 2015) stated that if change climate no mitigated with good could cause GDP decline by 23% by 2100. Bappenas data mention that

Indonesia needs financing / investment in the sector sustainable until in 2030 amounting to Rp67,803 trillion. This thing Becomes opportunity for industry service finance for involved in financing sustainable. Industry service finance can also utilise change global trend in invest. The more many investors need investation they in product green. Besides that, we also witnessed enhancement Request will products and services friendly environment.

Study with discussion about *Green Banking* has found in amount studies that have various broad perspective , [5] research about *Green Banking* focus on perspective bank customers in Mauritius and discover that majority bank customers , bank responses and perceptions positive to the idea of " project " green " implemented by good bank from side funding nor bank products.

Studies international cases [6] *Green Investment Bank* invested 461 million pounds for funding project generator electricity power wind free beach *Westernmost Rough* on the beach *East Yorkshire*. Project this expected could produce electricity for about 400,000 houses stairs and is part from bank strategy for support projects energy renewable.

Thornton Bank is working same with kfw IPEX-Bank for provide investment funds development generator electricity power wind free beach in belgium . Project the eat cost of 900 million euros for development pinwheel the future wind will produce energy of 325 WM [7].

In Indonesia, several banks have start distribute credit funds to effort small and medium through mechanism Credit Resistance Food and Energy (KKPE). Credit this distributed to farmers , ranchers , etc. , for support guaranteed procurement food and development energy vegetable , that is plant sugarcane and cassava , as well as farms , which can processed Becomes bioethanol and biogas [8].

Based on results research [9] Bank Mandiri channeled funds of 41.3 million dollar at eight area producer starch cassava for development system generator electricity biogas power . From wastewater treatment \_ factories producer starch this expected could produce power electricity reach 23.6 MW and reduce CO2 emissions up to 543 thousand tons per year.

See problem related lack of sensitivity to environment where many company big To do violating action \_ Article 87 paragraph (1) of Law no. 32 of 2009 concerning Protection and Management Environment Life (UUPPLH): "Every guarantor answer business and / or activities that do

deed oppose law in the form of pollution and/ or destruction environment life that harms others or environment life Required pay change loss and/ or damage environment live, or To do action certain "Based on chapter that, every guarantor answer something business and/ or activities ( companies / legal entities ) that give rise to pollution and/ or damage environment life considered To do deed oppose law . not quite enough answer for replace losses incurred , as long as proven that he has To do deed pollution and/ or destruction, proven with existence connection because real consequences Among mistakes and losses the or without need proven element error [10].

## II. REVIEW OF RELATED LITERATURE

### A. Theory Legitimacy and Stakeholders

Legitimacy could interpreted as even distribution perception or assumption that treatment to something entity is expected and reasonable action for conducted in accordance with values belief, norm systems, and evolving definitions by social [11].

Theory legitimacy appear because problem contact social Among entity and environment, because destination compatible entity \_ with values that exist in society. [12], legitimacy obtained entity in condition or system score something company in line with system more social \_ big where is the company Becomes his share.

Theory legitimacy state that company Keep going look for method for ensure the operation in accordance with norms and limits that apply in the environment company.

#### Green Banking

According to Lymperopoulos [13],) in journal [14] *Green Banking* direct the bank to Becomes more responsible answer to environment with develop inclusive bank strategy that can ensure development economy sustainable . *Green Banking* is the bank 's efforts to make industry grow green and can help the recovery process environment. *Green Banking* is business banking done for help reduce emission carbon external by whole and trace internal carbon [15] Index be measured with counting disclosure items reporting *Green Banking* reported by banks compared with the expected disclosure items. If something company disclose an item, then will given score 1 and score 0 otherwise [16]. Formula used \_ is as following : [16]–[18].

$$\text{Formula : GDB} = \sum_{i=1}^n di$$

Description:

GDB: Disclosure *Green Banking* *i* year *t*

*in*: 1 if reported, 0 if no

*n*: Amount Disclosure of expected *Green Banking* indicators.

Whereas in study this for make it easy calculation in practice *Green Banking* this use formula  $Gcost = Total Cost of Green Project$  based on journal [14]. This because based on policy indicators , one of which is is *green project* financing.

Research conducted by [19] found that the practice of *Green Banking* has a significant positive effect on the performance of the banking environment. In line with other

studies, *Green Banking* can also contribute to company performance. The empirical study of [20] found that investors will have the opportunity to earn abnormal returns around environmental policies. Meanwhile, research conducted by [21] shows that there is no relationship between green initiatives implemented and bank profitability. [22] proves that *Green Banking* practices have a negative effect on bank profitability, while according to [10], [19], [23], [24] *Green Banking* policies affect profitability.

H1: *Green Banking (Gcost) has a significant positive effect on Bank Profitability*

#### Bank Size

Bank Size or Bank size is size big small a declared bank in total assets (assets), sales, and capitalization. The more big sale assets, and market capitalization then the more big size company that. [24] explain big small company could seen of the total assets owned by the company . Just like company banking for knowing big bank size can seen also from total assets owned such as cash, placements with other banks, letters valuable, disbursed financing, participation, costs paid upfront, active fixed, active rent To use business, and so on.

[17], large companies generally have large total assets and are able to generate large revenues and profits. The larger the size, the greater the profitability of the bank. [25] shows that company size has a negative effect on profitability.[16], [26] show that bank size has a negative effect.

H2: *Bank Size had an insignificant on Bank Profitability*

#### Non-performing loan (NPL)

*Non-performing loan* (NPL) is ratio for measure amount level credit problems that occur in a bank [27] Management NPL percentage must notice because increase amount credit problem could endanger bank health. Bank has credit problem that exceeds standards set by Bank Indonesia will cause drop the profit obtained, because the more tall credit jammed, getting bad quality the credit cause amount credit problem increases, so the bank suffers loss in activity operations that affect drop profits earned by the bank.

The results showed a significant positive effect on profitability, including: [9], [13], [18], [28]–[30].

The results of subsequent contradictory studies show that non-profit loans have a positive effect on profitability, namely Patmiwati (2016), Pratiwi & Wiagustini (2016), Ibrahim (2017), Parenrengi & Hendratni (2018), and Anggari & Dana (2020). That Non-Performing Loans affect profitability: Christaria & Kurnia (2016), Setiawan & Hermanto (2017), Widyastuti et al (2017), Hirindu Kawshala (2017), Kassem & Sakr (2018), Mosey et al (2018), Ha (2020), Sari & Septiano (2020), and Saleh & Winarso (2021).

H3: *NPL had a significant on Bank Profitability*

#### Efficiency (BOPO)

Bank efficiency is also described where costs incurred by the bank in operate activity be measured with ratio cost operations and income operations (BOPO). Bank efficiency is often also called with ratio efficiency used for measure

ability bank management in control cost operational to income operational. Every increase cost operational will result in decrease profit before taxes and in the end will lower profit or profitability (ROA) of the bank concerned. So that the more small bank efficiency means the more also cost efficient operations issued by the company.

Research conducted by Nusantara (2009) gives the result that BOPO has a significant positive effect on profitability variables. The results of research conducted by Dewi et al (2015) show that bank efficiency has a positive effect on profitability. Putri et al (2018) in their research also found that efficiency as measured by a ratio called BOPO had a significant negative effect on profitability. Research conducted by Peling & Sedana (2018) also finds that bank efficiency has a positive effect on profitability.

H4 : *BOPO had a significant on Bank Profitability*

#### Profitability

Profitability is ability company for get profit or maximum profit. With get maximum profit on target, company could do many for well-being owners, employees, and increase quality product and do investment new. Profitability is ratio for evaluate ability company in produce profit or score end from operation company. Ratio it also gives size level effectiveness management something company, thing this showed with profit generated \_ from sales and revenue investment Cashmere (2016). Profit used as indicator for stakeholders to evaluate how far is the performance management in manage something company. Ability level company in get profit could seen and measured with analyze report finance through ratio profitability [31].

One ratio profitability is *Return On Assets* (ROA). In analysis report finance, ROA is considered show success company in produce profit. ROA can measure profit company from past and projected activities \_ into the future.

### III. METHOD

Method study according to [32] is science that studies method or guiding technique researcher by scientific for get data with purpose and use certain . In Thing this study use method associative that is form study with use a minimum of two linked variable. Method data analysis using Multiple Linear Regression.

#### Population

Population is a collection of good data people, events or interesting thing attention research for made object. According to Sugiyono (2017), population is region generalization consisting of from objects and subjects that become quantity and characteristics that are applied by researchers for studied and then drawn the conclusion. Population in study this is a service company registered finance in the IDX.

#### Sample

Sample is part from a lot amount population and the characteristics possessed by the population that . The Most recent approaches in the literature focus on the analysis of existing corporate reporting related to green banking [33]. So specifically, researchers conducted research using banking

companies located in Indonesia by providing and reporting financial reports for 8 banks from 2016-2018.

#### Definition of Variable

1. Green Banking (Green Cost) is GCOST equals the total costs in green projects by each bank. Higher green costs indicate greater Green Banking practices.
2. Bank Size (Bsize) is equals natural logarithm of total assets of each bank.
3. Non-Performing Loan (NPL) is a loan in which the borrower is default and hasn't made any scheduled payments of principal or interest for some time.
4. Efficiency Bank(BOPO) a useful ratio of employment is obtained from the results of the company's operations in managing its assets.
5. Profitability (ROA) is equals the ratio of annual values of return on assets before loan loss provisions.

### IV. RESULTS AND DISCUSSION

Test conducted using multiple linear regression test with  $\alpha=5\%$ . Test results presented in Table 3. Following this:

Table 1. Panel Data Regression test results

Variable	Coefficient	Prob.
C	7.300632	0.0000
GCOST	-0.169088	0.0339
BS	-0.000572	0.2971
NPL	-0.240465	0.0180
BOPO	-0.040226	0.0000

Source: Output Eviews

Coefficient value from variable Gcost is as big as **-0.169088** negative value. In addition, there is a probability value obtained is as big as 0.0339 or not enough of 0.05 or 5%. So that Thing the could interpreted that variable Gcost take effect positive significant to bank profitability. This could caused when the bank gives allocation of funds in implementation participation environment in various aspect of the total projects launched by OJK and BI, the impact big for community and environment as well as increase electability performance finance and bank reputation in activity that. So that Thing this will increase trust customer to sensitive and caring banks to existing environment.

This is based on data on the sustainability financial statements of each company that supports the Green Banking policy. As part of supporting the formulation of a new sustainability policy that is being launched in the territory of Indonesia. For example, [31] Bank CIMB Niaga provides support in developing policies that can preserve the Green Banking policy. Bank CIMB Niaga provides full support in all aspects of the given green project, such as its commitment to implementing Green Banking policies and being assisted by SDG's (Siahaan, 2021). Going forward, CIMB Niaga's efforts to support the SDGs will continue to be carried out by increasing the number of electronic transactions; save paper, energy and reduce emissions; loans to MSMEs through distribution; and increasing the

financing portfolio in line with the ESG concept (Siahaan, 2021).

This section proves that the Green Banking policy has a positive impact on banks that fully support this sustainability action. This is in accordance with the hypothesis, which is positive and significant, that based on the report data provided, on average, the Green Banking empowerment policy is one factor each year, one of the factors is that Gcost in the form of total financing for green projects is not more than 0.05% increased.

So it can be seen from the significance of the financial statements related to the flow of Gcost funds from 2016-2021 the flow of funds for green project policies increased but not so much, it can be seen that in 2016-2017 it increased but not too significantly, namely only Rp. 2,292,000, so if you want to compare it again for 2017 – 2018 it only increased by 0.03% so that you can see all the flow of funds for policies and approaches with the Gcost variable through Bank CIMB Niaga which proves that every financial service makes a good contribution but has not achieve significance for environmental progress. Even Bank CIMB Niaga for the 2018-2019 period actually decreased by 2% from the previous year this was due to a decrease in profits generated by the company, the flow of funds was also reduced for the Green Project projection. As a result of the allocation of funds that occurred in (sustainability financial report, 2019) it was explained that the allocation funds were transferred to CSR funds for pandemic response.

To find out that 2019-2020 also experienced a 10% decrease, this could happen due to the entry of the pandemic and the start of operational activities which were slightly disrupted due to limited activities from 10% - 50% for Work From Office (WFO) based on the government's decision to provide limited services. to prevent bubbles of transmission of Covid-19 President Director (Siahaan, 2019). So this is what causes financial service operations to experience a decline, even though they are still operating but do not provide operational services to the maximum. So that there was a decrease in profit and other operational activities, in that year there was a reduction in the flow of funds for Green Banking activities. But on the other hand, it is very good that in 2020-2021 banking activities that had disrupted operations gradually began to rise and run normally so that in that year the flow of funds for allocation to the environment had returned to normal. thus increasing 4% from the previous year.

When viewed from the existing phenomena, this is a good response from the financial services sector which has begun to care about the impact of Green Banking on the asset portfolio in the financial services industry.

Coefficient value from Bank Size variable is as big as -0.000572 negative value. Besides that as for the nil ai the probability that is obtained is as big as 0.2971 or not enough of 0.05 or 5%. So that Thing the could interpreted that Bank Size variable has an effect negative to bank profitability. This thing occur based on report finance reflect that asset value displayed no disabled by actually so that give rise to not related with profitability company. Where power buy Public decrease result in sales and distribution of credit funds decrease result in profit company service finance down so growth of assets owned no could develop by efficient.

Based on this, the larger the TA of a company, the smaller the company's tendency to increase ROA and the smaller the TA of a company, the greater the company's tendency to increase ROA.

It can be interpreted that the sample tested proves that the actual size of the bank has a negative effect on the profitability of the bank. This can be seen through (Bank BJB's financial statements) which are presented through Bank BJB or commonly referred to as Bank Jawa Barat and Banten where in 2016-217 Bank BJB recorded asset growth of 0.12%, an increase which showed significant results but fluctuated what has been done by Bank BJB on Asset Management has made the performance of Bank Size not affected to the maximum.

It can be seen again that for 2017-2018, which only recorded a Bank Size performance of 0.04%, this gives the view that asset management carried out by Bank BJB is not yet optimal. Then in 2018-2019 the results of Bank Size, which was only 0.03%, were clearly always decreasing by 1% every year. This happened based on the 2019 BJB financial statements reflecting that the asset values displayed were not actually impaired, thus causing an unrelatedness to the company's profitability. Where the people's purchasing power decreases resulting in decreased sales and distribution of credit funds resulting in decreased profits for financial services companies, the growth of assets owned cannot develop efficiently, the problem based on the phenomenon that occurs is that there is no relationship with bank size that occurs in this study. As well as the emergence of the Covid-19 pandemic problem that attacked Indonesia, the entire financial industry was affected so that the total assets achieved that year could not be absorbed optimally.

The decline in net interest income is the cause of stagnant profit growth. Bank BJB in 2019 recorded a net interest income of Rp 6.08 trillion, down 6.4% YOY compared to 2018's achievement of Rp 6.49 trillion. Total assets were recorded at IDR 120.1 trillion from IDR 114.9 trillion (growing 4.5% YOY) (Bank BJB annual report, 20219). This is due to the unfavorable economic situation after being hit by a global pandemic.

When compared to 2019-2020, up 0.13% from the previous year. And for the years 2020-2021 it is 0.13%. This happens because Bank BJB collaborates and innovates for the progress of the bank because according to (President Director of Bank BJB Yuddy Renaldi) the company's business performance continues to grow and is well maintained both in terms of fundamentals and profitability in 2021 with interest income growth of 21.6% followed by Cost growth. Based Income 36.9% (sourced from digital Chanel Bank BJB) which also grew 42.4% YOY with the formation of more solid reserves to strengthen the balance sheet, this is the reason Bank BJB provides a very good Bank Size value this year. (Source: Kontan.Co.Id Online News Portal, accessed 12 January 2022). Based on this, it provides an additional explanation that it is true that the Bank Size or company size has a negative impact on profitability, but in this study it is noted that the growth results carried out by some samples do not meet the criteria of 5% that have been set.

According to Machfud (1994) that company size is a scale that can be classified company size according to various ways, including: total assets, log size, stock market

value, and others. Basically the size of the company is only divided into 3 categories, namely large companies (large companies), medium companies and small companies (small companies). Determination of this size is based on the total assets of the company. Companies that have large assets have the opportunity to earn greater profits.

The results of this study are in accordance with the results of Deelchand and Pagett (2009) and Anom Purbawangsa (2015), Manuaba (2012), and Raj Bhattarai (2016) and Antonio, Ponce (2013). However, the results of this study are not in line with the research conducted by Baskara and Kadek (2019) and Filzah, Ridwan & Anan (2016).

Coefficient value from NPL variable is as big as - 0.240465 is negative. Besides that as for score probability obtained is as big as 0.0180 or not enough of 0.05 or 5%. So that Thing the could interpreted that NPL variable has an effect positive significant to bank profitability. Caused that the bank applies strategy growth prudent credit, especially in very condition competitive.

Poor credit quality will increase risk, especially if credit distribution is carried out without using the principle of prudence and expansion in lending that is less controlled so that banks will bear greater risks as well. The risk is in the form of difficulty in repaying credit by debtors which if the amount is large enough it can affect banking performance. In this case, financial service companies such as Bank BRI or commonly known as Bank Rakyat Indonesia recorded the value of NPLs in 2017, the collectibility, which is defined as the number of non-performing loans, increased to 2.23% from 2.10% in 2016. However, BRI's NPL figure is still far from the Bank Indonesia requirement of 5% (IDX, 2017).

As of December 2017, the Company's assets reached Rp1,076.43 trillion, grew 11.66% from the same period the previous year of Rp964.00 trillion. (BRI Board of Commissioners, 2017) assesses that the Board of Directors has succeeded in implementing a prudent credit growth strategy, especially in highly competitive conditions during 2017. As of December 2017, the Company's loans amounted to 708.00 trillion, grew 11.45% compared to the position in 2017. December 2016 of Rp. 635.29 trillion. Credit quality is well maintained as reflected in the ratio of non-performing loans (NPL Gross) of 2.10% (BRI Financial Report, 2017).

In line with maintained domestic economic conditions, based on (BRI financial report, 2019) BRI also recorded good performance. BRI loans grew by 8.3% yoy, above the banking industry's 6.1% yoy, while Third Party Funds grew by 8.1% yoy, better than the industry average of 6.6% yoy. (Sunarso, 2019) BRI also managed to maintain credit quality where the NPL was maintained at the level of 2.6% (Bank Only). In 2019, although the national banking intermediation function appeared to be under pressure. Financial system stability was maintained as reflected in the banking capital adequacy ratio (CAR) which was quite high at around 23.3% and non-performing loans (NPL) which remained low at 2.5% (gross) or 1.2. % (clean). Meanwhile, the banking industry's credit growth recorded a decline to 6.1% (yoy) in 2019 from 11.8% (yoy) in 2018 (Sunarso, 2019).

In general, Bank BRI's performance continues to show growth compared to the previous year and consistently

grows above the industry. BRI's total assets on a consolidated basis in 2019 reached Rp1,416.8 trillion or grew 9.2% year-on-year (yoy) from the previous Rp1,296.9 trillion (2018). Meanwhile, BRI's credit growth reached 8.3% (yoy) or to Rp907.4 trillion from Rp838.1 trillion in 2018 with non-performing loans (NPL) remaining under control at 2.80% (Sunarso, 2019).

In terms of credit quality, there was a decline as reflected in the increase in the gross NPL ratio (bank only) to 3.08% in 2021 from 2.94% in 2020 (Sunarso, 2020). Increasing the NPL ratio in general is the Company's risk management strategy. in order to map the real condition of debtors who still have the ability to pay and have business prospects amidst the ongoing credit relaxation policy. One of the mitigation measures taken to maintain the sustainability of the Company is to maintain NPL coverage with a very adequate ratio of 278.14% at the end of 2021.

This is done in order to anticipate the decline in credit quality and to implement prudential principles and management. good risk. Other asset quality ratios were also reflected in the LaR Ratio which decreased compared to the previous period to 24.11% (yoy) (BRI financial report, 2021). The Company restructured loans affected by COVID-19 with the highest position in September 2020 of Rp. 193.7 trillion which continues to show a downward trend with outstanding restructuring at the end of 2021 of Rp. 157 trillion. The decline in the restructuring interest rate is also reflected in the decline in loan at risk (LAR) which is still sloping (Sunarso, 2021).

Coefficient value from BOPO variable is as big as - 0.040226 is negative. Besides that as for score probability obtained \_ is as big as 0.0000 or not enough of 0.05 or 5%.

So that Thing the could interpreted that BOPO variable has a significant positive effect to bank profitability. This thing showing that ability banking for produce more income tall with more cost low so that condition company that activity pata bank operations every year has walk far more efficient.

BOPO has a negative effect, meaning that if BOPO increases, it means that BOPO efficiency decreases, then profitability (ROA) will decrease (Dendawijaya, 2009:14).

The more efficient a bank, the better its performance. Improved bank performance will increase public confidence in banking. Increased public trust can increase the amount of third party funds collected by a bank, besides that people are also encouraged to use bank services and products such as loans or credit. The high third party funds and public contribution to banking products are expected to increase profitability. The efficiency efforts of Bank BNI that have been carried out have been able to improve operational efficiency as reflected in the decrease in Operating Cost to Operating Income (BOPO) compared to the previous period, namely at the end of 2016 to 43.9% and 71.0% at the end of 2016. The end of 2017 (Silvano, 2016).

The Company also succeeded in increasing efficiency as reflected in the improvement in the BOPO ratio (Operating Expenses to Operating Income) from 73.6% in 2016 to 71.0% in 2017 (Silvano, 2016). This demonstrates BNI's ability to generate higher revenues at lower costs. more efficient. Judging from the results of the financial statements provided by the company, operating expenses per operating income (BOPO) in 2017 decreased by 70.5% compared to

2016 and is still lower than the industry. Return on assets (ROA) increased by 2.8% in 2017 and was higher than the industry.

The increase in other operating expenses in 2017 was lower than in 2016 indicating the success of efficiency carried out despite credit growth and additional office networks throughout the year. Other operating expenses increased 8.6% to Rp 20.9 trillion. (Silvano, 2017) based on (BNI financial report, 2017) This success was marked by a decrease in the CIR ratio in 2017 to 43.9% from 44.0% in 2016. The same thing can be seen in the BOPO ratio, which fell to 71.0% in 2017 from 73.6% in 2016. The decline in both ratios became a benchmark. for the company's condition that the bank's operational activities in 2017 were much more efficient compared to 2016. The improvement in the BOPO (Operating Expenses to Operating Income) ratio from 73.6% in 2016 to 71.0% in 2017 was due to an increase in interest income and other operating income were 6.5% and 15.5% respectively in 2017 when compared to 2016. This shows BNI's ability to generate higher revenues at a more efficient cost (Silvano, 2017).

Operating expenses per operating income (BOPO) increased by 73.2% in 2019 compared to 2018 and is still lower than the industry. Return on assets (ROA) decreased by 2.4% in 2019 and was lower than the industry (BNI Financial Report, 2019). The challenge of increasing operating expenses at the industrial level is also felt by BNI. Along with the increase in the Operating Expenses to Operating Income (BOPO) ratio in the Indonesian banking industry, BNI's BOPO (Operating Expenses to Operating Income) ratio also increased to 73.2% in 2019 from 70.1% in 2018 according to the president commissioner (Iqbal, 2019). Operating Expenses Ratio to Operating Income (BOPO) which is still relatively high. BNI views the importance of increasing productivity and efficiency of the banking process to support business initiatives and bank strategies in providing maximum service to customers (Iqbal, 2019).

Operating expenses per operating income (BOPO) decreased in 2021 to 81.2% compared to 93.3% in 2020. Return on assets (ROA) rose to 1.4% in 2021 and was lower than the industry. BNI's BOPO (Operating Expenses to Operating Income) ratio decreased to 81.2% in 2021 from 93.3% in 2020. This was influenced by BNI's operating income growth which reached 14.2% during 2021, higher than growth operating costs of 12.3%.

Bank Indonesia sets the best BOPO ratio, which is below 85%, because if the BOPO ratio exceeds 85% to close to 100%, the bank can be categorized as inefficient in carrying out its operations. This is in line with research conducted by the results of research conducted by Alifah (2014), Sumiati (2009), Prastiyaningtyas (2010), Hutagalung, et al. (2013) and Wicaksono (2016). However, the results of this study are different from the research conducted by Pratiwi (2014), Yusriani (2018) and Bambang & Joko (2009).

## V. CONCLUSIONS AND SUGGESTIONS

### CONCLUSIONS

Study this aim for knowing influence Policy *Green Banking*, Ratio Credit, Bank Size and Bank Efficiency

towards profitability of the bank that runs policy sustainability is the new focus in this world banking. So the conclusion as following:

1. Gcost take effect positive significant to Bank Profitability. That thing occur caused existence enhancement funding and allocation *green banking* (Gcost) and improvement portfolio company cash flow for increase performance company .
2. *Bank Size* take effect take effect negative to bank profitability. This thing caused that size company no use asset allocation on increase performance unfinished finance \_ maximum where collaboration and innovation asset image not capable absorbed with good and have an impact on decreasing *assets* company.
3. NPL is influential take effect positive significant to bank profitability It is caused possibility credit given to the company no could managed with good so that bring up credit jammed. This impact on quality bad credit and expansion \_ in distribution less credit controlled so the bank bears risk difficulty return credit made by the debtor with total budget enough credit big.
4. BOPO has a significant positive effect to bank profitability It is caused enhancement bank performance raises level trust portfolio company to investors and *stakeholders* so that company banking capable push cost efficiency and increase income operational with very good. Because every year company banking capable increase income Interest and income operational.

### SUGGESTION

Based on conclusion above, then could submitted suggestions as following: Important for company service finance for apply *system* caution in allocate credit funds that are distributed. And pay attention and consider that name big bank only no enough for raise image performance finance banking. What is needed is relevant and direct allocation of funds perceived by customers. Because of this will impact directly on portfolio company as well as, must supported with asset management can be maximized by the parties banking because as wheel drive economy national.

Expected could add science and study studies about policy Ongoing *Green Banking* implemented by parties banking. View from various economic *factors* (macro and micro), non economics (politics, culture, health and others), the risks that will be faced by the driver economy national. And add variable such as VCEM, ROE and Market Value (MV).

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