
Banking Industry's Commitment to Sustainable Finance Towards Low-Carbon Economy Transformation

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Abstract

Purpose of writing this scientific article is to find out that the banking industry's commitment to sustainable finance can lead to a low-carbon economic transition. This article was written using a non-participant observation method. The data taken comes from the Sustainability Report of financial sector institutions on 4 banking industries for the 2022 period. The research design in this article is a descriptive method with a qualitative approach. As for how to analyze the data using the steps: Editing, classification, verification, and the last conclusion. The results of the study of scientific articles show that the four banks as a banking industry use energy to carry out business activities, thereby reducing the impact and operational costs.

Keywords: Banking Industry Commitment; Sustainable Finance; Low Carbon Economic Transition

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Introduction

Background

Low carbon development is a strategy as a form of effort towards a green economy and sustainable development. As well as being the basis or guideline to achieve an Indonesian mission, namely Indonesia advanced 2045 and to achieve Indonesia with zero emissions by 2060. In realizing this low-carbon development, it certainly has all the obstacles so that agreement from the parties concerned is needed. Therefore, in all efforts made, of course, must be carefully thought out the cause and effect.

As stated in Law No. 71 of 2021 and Presidential Regulation No. 98 of 2021, it is stated that setting targets for reducing greenhouse gas emissions in Indonesia has a ratio of around 29% carried out with own efforts and also 41% with support from international parties in 2030. With that, Indonesia determines that the target of Net Zero Emission occurs in 2060.

Sustainable finance has a goal for sustainable development with an approach to environmental factors (climate change) as well as social factors. The implementation of this sustainable finance system is expected

to provide a source of funding for adaptation to climate change and also develop an environmental economy. This commitment in implementing sustainable principles is implemented through the creation of a sustainable finance roadmap in December 2014 in Indonesia. In the Roadmap, one of the things that can be taken as an example is binding regulations to tell the financial services sector.

Several banks in Indonesia are one of the banking industries that have implemented sustainability committees since 2019. This is a form of banking efforts to reduce carbon emissions by 29% by 2030. They feel that they also have a responsibility in supporting matters related to Carbon Neutrality. It is also intended to maintain alignment with MUFG.

An example that has been done is by estimating emissions from greenhouse gases, so that in 2021 the Bank is proven to be able to reduce greenhouse gas emissions by 24.6% so that it is at 45.3K CO₂e Metric Tons. Until now it is still continuing to develop several things that can reduce greenhouse gas emissions in the company's operational activities. Some things are done such as: making your own electric power by utilizing solar panels, this is intended to save the electricity it uses and much more.

Problem Statement

Can the banking industry's commitment to sustainable finance lead to a low-carbon economic transition?

Purpose of Writing

Knowing that the banking industry's commitment to sustainable finance can lead to a low-carbon economic transition.

Literature Review

Sustainable Finance

Migliorelli (2021) defines finance as a supporting sector or activity that contributes to the achievement of at least one dimension of sustainable development.

Not only increasing financing, but sustainable finance can also increase the resilience and competitiveness of the banking industry. Sustainable finance is a new opportunity and challenge that can be utilized by the financial services sector to increase and be more stable. Meanwhile, capital market financing can be increased by forming an environmentally friendly stock index (green index) and a list of environmentally friendly issuers (green list). The ecological stock index also strengthens a company's reputation or reputation, which makes it easier to obtain financing while encouraging better management of

environmental concerns in its business. However, there are differences in research findings about how investors react to sustainable development stock indices.

Green Economy Concept

Green economy is an economic model of sustainable development on the overexploitation of natural resources and the environment. The green economy is a leap away from economic practices that prioritize short-term profits, which leaves several pressing issues to address, including promoting a low-carbon economy (Makmun, 2010).

There is a difference of opinion between developed and developing countries on how the concept of green economy is understood in the context of sustainable development and poverty alleviation. In addition, how to respond to this concept at the national level to avoid "green protectionism" in developing country trade and financing.

Different bases on development processes and economic and social structures between developed and developing countries are contained in general principles but differ in the responsibilities and capacities of developed and developing countries. This difference also shows that there is no single model for sustainable development as there is a green economy approach. That is why the definition of a green economy requires a certain flexibility and also takes into account the different levels of economic, social and ecological development in each country.

Green Banking

Green banking translates into banking that prioritizes the application of sustainability in lending or operational activities (Awatara, Hamdani, Susila and Saryanti, 2020).

Banks are not directly involved in creating significant pollution. Banks use less water, energy, and other natural resources than other sectors such as manufacturing and mining. However, the banking business cannot be separated from growing environmental problems.

By offering credit or financing to its customers, banks can initiate activities that have an impact on the environment (Awatara, Hamdani, Susila and Saryanti, 2020). The bank has the right to reduce or not such financing, depending on the extent to which the activities financed by the bank loan have an impact on the environment.

Conceptual Framework

The conceptual framework in this article is seen from the influence of Sustainable Finance on development towards a low-carbon economy in the banking industry. In this article, we will explain the relationship between sustainable finance and low-carbon economic change and the influence of the banking industry's commitment to sustainable finance. Based on the analysis above, the framework of this research concept is shown in figure 1:

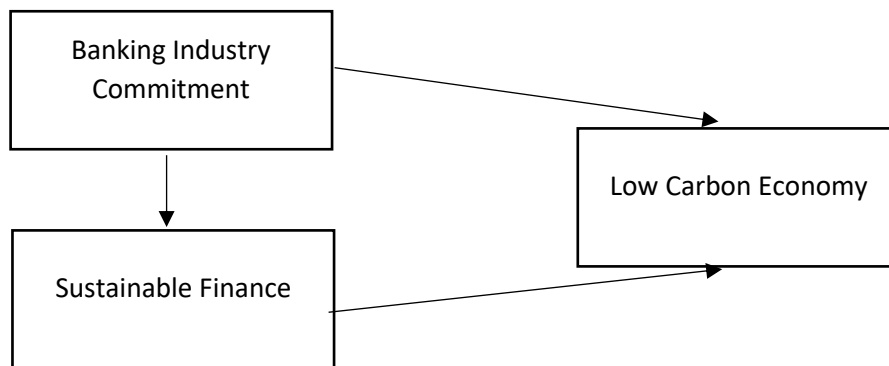


figure 1 conceptual framework

Research Methods

Research Design

Research design means a form of design that has a function as a guideline in the research process. Therefore, this research design is used as a basis for research. This research design is a guide to researchers so that the research to be done does not have fatal errors. Later the research design will be useful for those who are in this research starting from the beginning of the research to the completion of the research. Fachruddin (2009, 213) said that the research design is a frame of reference or details of the work process to be carried out during the research, so it must provide an overview and direction where the research is carried out. and provide an overview of whether the study is completed or closed.

According to Nana Syaodih Sukmadinata (2007; 287), the research design is clear, namely:

- What information is collected?
- Where and from whom information is collected
- Collected with techniques and tools that are stages of collection.

From several considerations that have been discussed, the research method used in this article is a descriptive method with a qualitative approach.

Place and Time of Research

The research was conducted on the Indonesia Stock Exchange Website (idx.co.id) and also the Youtube Channel with a period of approximately 2 weeks in April 2023.

Data Types & Data Sources

Secondary data is the type of data that we use or that we take in this study and this research uses qualitative methods. This article takes data from the sustainability reports of the banking industry, namely PT Bank Danamon Indonesia Tbk for the 2022 period, PT Bank Mandiri (Persero) Tbk for the 2022 period, PT Bank Mega for the 2022 period, and PT Bank Negara Indonesia (Persero) Tbk for the 2022 period. The sustainability report is taken from the Indonesia Stock Exchange website and the website of each financial sector institution.

Population and Sample

This research population stems from the fact that qualitative research starts from concrete cases in concrete social situations, and the results of the study are not applied to the population but are transferred to other places in social situations that have similarities to those social situations of the cases investigated. Theoretical samples are because such the purpose of qualitative research is to dissect a case to produce a different theory or conclusion. The samples used were Bank Danamon, Bank Mandiri, Bank Mega, and Bank BNI.

Data Collection Techniques

Non-participant observation technique is the technique used in this study, why use it because we researchers only observe, and as independent observers are not directly involved. And interview techniques carried out on the youtube channel of several speakers, namely:

1. M. Attariq Zamel (Mega management development program) - Bank Mega
2. Abdon Muhammad (Officer development program) – Bank Mandiri
3. Reza Jaya Negara (Officer development program) – Bank BNI
4. Aulia M. Widodo (Danamon banker) – Bank Danamon

Subject and Object of Research

- The subjects of this study were 4 speakers from 4 banks, because all the information or data obtained came from the four sources above and in the bank's company report.
- Object of Research

The object is the bank's commitment to sustainable finance in the Bank's sustainable report.

Data Processing Process

The next thing that can be done on the data that has been obtained is to process the data, there are several ways including:

Editing (Data Check) is editing in question this is a re-examination of some collected especially in terms of answers and completeness. What researchers do about the data that has been collected is to carry out the editing process.

Classification is the process of grouping all data based on the required group. Later the data will be re-examined and sorted into parts that have data similarities. This is done so that the data is easy to understand.

Verification is the process of checking data and information that has been collected.

The last is the conclusion, which is the last step in the data processing process. By entering this conclusion, it is certain that the processed ones are ready to be presented in accordance with the research that has been done.

Results and Discussion

Bank Mega manages various risks in implementing sustainable finance including credit risk, operational risk, liquidity risk, and market risk. In overcoming these risks, we apply a prudential approach strategy by mapping ESG risks, adjusting lending that considers ESG aspects, and debtor risk profiles. Bank Mega uses electricity as the main energy source for operational activities, in addition to other fuels such as diesel, oil, and gasoline. Banks also use generators as energy reserves during power outages to ensure zero downtime to maintain banking transaction processes. Bank Mega has calculated scope 1 emissions from fuel use. Given the increase in fuel costs as of September 2022 until the reporting period, the amount of fuel used for official vehicles was 844,389 liters, a decrease of 10.50% compared to 2021 of 943,487 liters.

Meanwhile, for the use of online taxis using the same calculation as vehicles. The implementation of sustainable finance is not without challenges, considering that it is relatively new for some circles. For example, debtors' understanding of sustainability issues and environmental, social and governance risks is still very low. For this reason, Bank Mandiri provides various training and counseling for customers and prospective debtors.

Bank Mandiri supports sustainable finance by implementing banking policies and practices that are implemented in all its business lines. Bank Mandiri's initial steps towards sustainable banking have been implemented in 2018 with the establishment of RAKB (Sustainable Finance Action Plan), after the Financial Services Authority (OJK) issued POJK 51 concerning sustainable financing of financial service institutions, issuers, and public companies in 2017. RAKB in 2018 was realized in the implementation of sustainable finance at Bank Mandiri in 2019.

BNI consistently carries out Sustainable Finance practices in accordance with OJK regulations by channeling KKUB financing consisting of environmentally friendly business activities (KUBL) and MSME activities. BNI continues to increase KKUB's portfolio gradually and sustainably. In determining KKUB, the Bank identifies and analyzes prospective debtors and debtors. CSS is implemented periodically once a year. The survey results in 2022, BNI received a score of 4.27 from a scale range of 1-5. This figure has increased compared to the CSS score in 2021 which was 4.16.

To ensure that exceptional services can reach every touch point, BNI always ensures the implementation of management monitoring, controlling, and evaluating intensely and systematically involving all related elements from the leadership level to the technical level in accordance with the type of services and products produced. Financing growth in KUBL in 2022 was recorded at 6.12%, smaller than the growth in the previous period which reached 20.33%. Of KKUB's total portfolio of Rp182,934 billion, 67% of which is financing for MSMEs. Meanwhile, KKUB's portion of total financing in 2022 was 28.5%, smaller than 29.6% in 2021. This is influenced by the record of existing debtors reported to be included in the KUBL in 2021 is still more than the KUBL debtors in 2022, and the number of new debtors recorded in the KUBL classification in 2022 is less because several KUBL credit applications have not been realized.

Danamon consistently evaluates and revises policies, adequacy thresholds, and procedures. The Internal Audit Department (SKAI) periodically reviews the risk management process and monitors improvements in audit results. The Public Accounting Firm conducts an external audit every year appointed by the Bank.

In addition, Danamon has incorporated ESG considerations into the implementation of risk management that is integrated with operational activities, as well as the development of the Bank's products and services.

Danamon already has Sustainability Credit (ESRM) and Environmental Social Risk Analysis (ESRA) guidelines in the credit underwriting process. This guideline was first implemented in March 2021 for new and additional financing that has significant ESG risks, and is implemented in Enterprise Banking business lines, specifically the Corporate and Commercial segments.

During 2022, the implementation of ESRM and ESRA will continue to support the implementation of risk management related to ESG aspects. Danamon constantly communicates with KKUB debtors and other customers regarding opportunities and risks related to social and environmental aspects in related industrial sectors. Activities are intended so that Danamon and debtors can anticipate potential risks, and so that debtors can continue to develop business activities in a sustainable manner. In 2022, Danamon recorded a net profit after tax of Rp3.3 trillion, an increase of 110% or Rp1.6 trillion compared to the previous year. Operating profit was recorded at Rp4.6 trillion, an increase of 90% or Rp2.4 trillion from the previous year.

The Bank also managed and maintained a stable balance sheet, supported by liquidity and an increase in loan loss coverage ratio of 230.8%. In addition, the Bank managed to record a growth in the EBFi segment loan portfolio of 18.1% compared to the previous year. Third Party Funds amounted to Rp127.4 trillion, up 3% YoY. CASA grew 11.6% YoY to Rp81.4 trillion.

Danamon supports financial inclusion through the Laku Pandai program. This program is expected to bring people closer and facilitate access to financial services without an office. As of the end of 2022, Laku Pandai Danamon has received 2,260 customers with a total fund of IDR 101,736,350. This program has 35 agents, including 32 individual agents and 3 incorporated agents. Its scope covers communities in 18 cities and districts in 6 provinces. In 2022, Bank Danamon expanded the disclosure of carbon related assets to include the transportation, materials and buildings, as well as agricultural products, food, and forest products sectors to be in line with MUFG's disclosure. Financing or lending that is disbursed always considers ESG aspects, Danamon also prioritizes the principle of prudence in every credit analysis process that runs.

OJK directs banks in Indonesia to carry out the THI Implementation Pilot Project in stages before full implementation. In line with this direction, Danamon has started the THI Implementation Pilot Project since July 2022, while preparing to develop a reporting system according to OJK directives.

Danamon approaches environmental conservation based on understanding, managing, and reducing the potential impacts of its activities. The Bank strives to use resources efficiently and support environmental programs, as well as develop sustainability programs internally that are in line with sustainability policies

and culture. Danamon focuses on improving energy efficiency, reducing greenhouse gas (GHG) emissions, and reducing waste.

Through the Corporate Real Estate Management (CREM) Division and Sustainability Finance Division (SF), Danamon consistently disseminates sustainability policies and principles through internal communication channels. This socialization includes the material: Good Practices on Responsible Consumption, Saving Energy, Water, and Paper, Earth Day, and Global Warming & Climate Change.

Danamon also conducts sustainability initiatives in the office environment, in addition to making environmental conservation efforts around the work area. After going through a series of indicators fulfillment in 2021, in 2022 Danamon received a Platinum level Green Building Certificate for MBD from the Green Building Council Indonesia (GBCI). Carbon Monoxide (CO) sensors have been installed in the basement, and non-LED light bulbs have been replaced with LED light bulbs as part of support activities. In addition, Danamon implemented solar panel usage programs in several locations.

Table 1
Interview Data

Sources	Cangkupan 1	Cangkupan 2	Total GHG Emissions
Speaker 1	1.184,9	1.164,1	2.349
Speaker 2	42.698	260.083	303.788
Speaker 3	121,64	295.208,86	295.330,50
Speaker 4	298	23.338	23.686

Based on observations, Bank Danamon as one of the banking industries uses energy to carry out business activities, thereby reducing the impact and operational costs. Judging from the table above, the total energy consumption in 2022 reached 144,811 GJ, down 1.20% from 2021 of 146,578 GJ. Danamon does not include energy consumption outside the organization in its calculations, as disclosure limitations only cover Bank Danamon Towers and Bank branches. This limitation is due to the complexity and data sources that are beyond the control of the Bank so that the information obtained is of less quality. The bank calculates energy intensity based on electrical output per employee.

The banking industry is not directly related to nature. Danamon offices are not located in areas with high levels of biodiversity or in protected areas, while Danamon branches are located in easily accessible locations close to commercial centers and residential areas. Nevertheless, the Bank supports efforts to conserve the environment and biodiversity, particularly through the Sustainability Credit Guidelines and ESRA Guidelines. Total energy consumption in 2022 reached 144,811 GJ, down 1.20% from 2021 of 146,578 GJ. Danamon does not include energy consumption outside the organization in its calculations, as disclosure limitations only cover Bank Danamon Towers and Bank branches. This limitation is due to the

complexity and data sources that are beyond the control of the Bank so that the information obtained is of less quality. The bank calculates energy intensity based on electrical output per employee.

The issue of climate change is becoming increasingly important to be addressed by all stakeholders. Therefore, Danamon strives to support a sustainable future by reducing GHG emissions in business activities, especially in the financing process. In the coming years, Danamon will explore long-term targets and strategies to realize more tangible support. The resulting emissions of CO₂ and other greenhouse gases consist of Scope 1 and Scope 2 emissions. Based on calculations, it is known that total GHG emissions in 2022 reached 23,636 tons of CO₂, a decrease of 1.42% from 2021 of 24,028 tons of CO₂.

Danamon continues to pursue greenhouse gas (GHG) management as part of its climate action. We use 2019 as the base year to calculate Scope 1 and Scope 2 emissions based on the Corporate Carbon Emission Measurement Guidelines issued by Bank Indonesia in September 2022. The source of emissions mainly comes from the use of electricity and gasoline fuel. Danamon's efforts to reduce GHG emissions in 2022 include installing solar panels in 5 branches. The installation of solar panels has an impact on reducing PLN's electricity use by 40 tons of CO₂e.

Conclusion

From several discussions and also from the research above, it can be concluded that the four banks have been able to improve performance, especially in sustainable financing, one of which is the implementation of community programs that provide added value to the community, as well as internal operation initiatives that are more environmentally friendly, in line with the joint commitment with MUFG to achieve *net zero GHG Emissions* from the Bank's operations by 2030. Furthermore, the support of the Government of Indonesia through related regulations has also played an important role in strengthening the quality of sustainable finance in Indonesia. and also with policies, namely Sustainable Credit Guidelines and ESRA guidelines. There are also Bank Danamon, Mandiri, Mega, and BNI striving to support a sustainable future by reducing GHG emissions in business activities, especially in the financing process. And also in responding to stakeholder demands regarding sustainable finance, Bank Danamon has carried out a *Pilot Project* for the implementation of the Indonesian Green Taxonomy in accordance with the direction of the Financial Services Authority (OJK).

One way is to provide training to all employees, with a special focus on the Board of Commissioners, Board of Directors, Sustainability Committee, and Sustainability Team as parties responsible for managing and supervising the implementation of sustainable finance. In 2022, the Indonesian Financial Services Authority (OJK) established the Indonesian Green Taxonomy (THI), as a guideline for classifying economic activities

in supporting environmental protection and management efforts, as well as climate change mitigation and adaptation.

THI has strategic objectives such as developing standards and definitions of green criteria for Indonesian business sector activities; promote green innovation and investment and financial sector growth in the financing and financing of green activities; and provide a reference for the Financial Services sector, investors and business actors for information disclosure related to finance and finance. These are several efforts as a form of commitment from Bank Danamon, Bank Mandiri, Bank Mega, and Bank BNI to realize Sustainable Finance Towards a Low Carbon Economic Transition.

Suggestion

Bank Danamon, Bank Mandiri, Bank Mega, and Bank BNI should pay increased attention to the fulfillment of the conformity of the principles of Accuracy and Reliability. In the principle of reliability, companies are advised to identify and disclose the original source of information and provide evidence that supports the disclosure of theories that have been obtained. In the principle of accuracy, companies are advised to disclose the margin of error from qualitative data and indicate in more detail which data does not match the criteria.

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