# **Chapter 3 RESEARCH METHODOLOGY**

### 3.1 Research Methodology

This research will employ a qualitative study design. Qualitative research is a methodology that is employed to gain a deeper understanding of real-world problems. Qualitative promotes understanding of the substance of an event. Thus, qualitative research not only satisfies the researcher's desire for an overview/explanation, but also contributes to a deeper explanation (Sofaer, 1999).

This study will use comparative method to compare the implementation of green banking between Indonesia banks and Singapore banks and to help determine how updated the Indonesia banks and Singapore banks is in green economy

### **3.1.1 Type and Source of Data Collection**

Qualitative research uses several techniques, and this research will use documentations for data collection, this research documentation will use the financial report of the banks in Indonesia and Singapore from 2019 - 2023.

The data that will be employed to gauge the advancement of green banking implementation between Indonesia and Singapore banks will encompass the issuance of green bonds and loans in green projects, mobile banking total accounts, an the banks annual return on equity (ROE) report from 2019 to 2023.

This study will employed a purposive sampling method to choose namely two Indonesia bank and two Singapore bank. Purposive sampling technique refers to a group of non-probability sampling techniques in which units are selected because they have characteristics that we need for a research, in purposive sampling units are selected "on purpose" in purposive sampling.

#### **3.1.2. Sample**

In this research paper, the criteria used to select the samples were; (1) Owns mobile banking product and have been running it for 5 years or more, (2) Has provides green bond product for 5 years or more, (3) Bank has implemented green economy project in their daily operation such as paperless transaction, contactless interaction with customers, and greening attempt inside banks. With these criteria's, two bank from Indonesia and two bank from Singapore will be used as this research subject. Bank Central Asia (BCA) and Bank Rakyat Indonesia (BRI) from Indonesia and The Development of Bank of Singapore (DBS) and Oversea-Chinese Banking Corporation (OCBC) from Singapore

From a study by Sirait (2023) titled "Implementation of green banking on six bank first mover pilot projects in Indonesia based on the Green Coin Rating (GCR) in the 2022 period". This research aims determine the implementation of green banking on six bank in Indonesia using the Green Coin Rating (GCR) with the data collected from the sustainability reports of Six Bank First Mover Pilot Project in Indonesia, BNI, BCA, Mandiri, BRI, BJB, and Artha Graha International. From this research, it appears that the implementation of Green Banking in Indonesia has made several significant positive impacts in supporting sustainable banking company business activities with environmentally friendly policies and practices

Two analysis of BRI bank and BCA bank from the same research shows their contribution and involvement in the green projects movement; BCA has succeeded in reducing carbon emissions by reducing waste, electricity and water use, as well as actively developing its digital bank and now are able to handles up to 7.2 million services on HaloBCA Apps.

BRI has also made various efforts to avoid emissions including saving electricity and water use to support environmental sustainability, provides various rewards in the form of funding for MSMEs, and BRI has successfully issued a Green Bond worth 5 trillion IDR to finance projects in the environmentally business category and provides credit to the green sector.

Another reference collected from a study published in 2019 about the role of green finance in Singapore. The Development Bank of Singapore Limited or DBS has also issued their green bonds, a net of 500 million USD have been allocated toward financing green assets such as green buildings, renewable energy, and climate change adaptation

Researching another approach of green finance in Singapore, Oversear-Chinese Banking Corp or OCBC has integrates ESG Risk Assessment Framework in lending and capital markets activities from relationship managers to credit approving officers and audit. They have provide a range of green financing solutions to key focus industries such as green buildings and water management that are linked to focus Sustainable Development Goals

# 3.1.3. Data Source

In order to facilitate the acquisition of data necessary to assess the advancement of green banking practices between Indonesia and Singapore, this research project proposes to utilize financial data from each bank's annual report and sustainability report, with the additional benefit of data obtained from OJK statistical data for banks.

This research project employs data provided by the Indonesian Financial Services Authority (OJK) to examine the evolution of Indonesia's financial landscape from 2019 to 2023. The objective of this research is to elucidate the development of traditional banking in the context of the emergence of digital banking and the progress of digital banks during the specified period. To ascertain the advancement of BCA Bank and BRI Bank in adopting a green financial approach, this research will also employ the financial reports published on their websites for the period between December 2019 and December 2023. This research will examine the issuance of green bonds and the implementation Digital banking in each bank.

To ascertain the progress of green banking and finance in Singapore made by DBS Bank and OCBC Bank in the implementation of green finance and banking, this research will also utilize the financial reports from DBS bank and OCBC bank that are published on their respective websites.

This research will examine the following financial data from the banks' annual reports and sustainability reports for the period between 2019 and 2023:

- Annual ROE report
- Registered digital banking account
- Recorded digital transactions
- Recorded green bonds and green project that the bank participate

Once the requisite data have been obtained, an analysis will be conducted to monitor the progress and fluctuations in the banks' equity throughout the period from 2019 to 2023. The records of registered digital accounts and digital transactions from 2019 to 2023 will also be subjected to analysis in order to ascertain the extent of progress made in the field of digital banking. This analysis will determine whether banks have contributed to the development of a green economy in the banking sector, and, if so, what their contributions have been, by examining the use of green bonds and green projects.

Subsequent to the examination of each representation, a comparison of green banking implementation between Indonesia and Singapore will be undertaken. This will facilitate an analysis of the progress of green banking in Indonesia and the manner of its implementation, as well as a comparison of green banking in Indonesia with green banking in Singapore.