Chapter 1

INTRODUCTION

1.1. Introduction

A bank is a mediator between the saver party that has capital funds and the borrower party that needs capital funds. Banks are essential in driving the economy through credit distribution, financial services, and fund management. The success of banks in carrying out this function depends on their profitability and operational efficiency, which are of primary concern to stakeholders, including investors, customers, and regulators. High bank profitability indicates the bank's capability to control assets effectively and make profits, which in turn strengthens public confidence in these financial institutions. According to Deutsche Bundesbank's (2018) report, the importance of bank profitability is closely tied to the security and the financial process operation. Bank profitability affects a bank capability to generate capital, which influences banks' lending behaviour. When banks face weak profitability, their ability to generate and retain capital diminishes, potentially leading to more restrictive lending policies. This restriction can undermine the impact of accommodative monetary policy measures aimed at stimulating economic growth (Deutsche Bundesbank, 2018).

Many previous studies have employed ratios provided by banks in their financial reports to evaluate profitability. The simplest method to measure a bank's profitability is through return on assets (ROA), while another way to measure is using return on equity (ROE) (Kohlsheen et al., 2018). These two measurements are indicators in assessing bank performance and financial resilience. Al-Sharkas and Al-Sharkas (2022) study measures bank profitability using Return on Assets

(ROA) and Return on Equity (ROE), which represent annual net income divided by total assets, and net income divided by total equity, respectively (Al-Sharkas & Al-Sharkas, 2022).

Plenty of research has also been conducted to examine the variables influencing bank profitability. Almazari (2013) observed a dependency between CAR and profitability using nine banks in Saudi Arabia over the period of 2007 to 2011. The result reveals that there is a meaningful relationship between capital adequacy ratio, cost-income ratio, and bank size with profitability (Almazari, 2013). Lotto (2019) investigates the variables that affect the operational efficiency of 36 Tanzanian commercial banks from 2000 to 2017 which revealed that bank capital adequacy and liquidity are positively related to bank operational efficiency, and operational efficiency has a direct influence to bank profitability (Lotto, 2019). Al-Sharkas and Al-Sharkas (2022) studied the impact of capital adequacy ratios on bank profitability in 24 Jordanian Banks covering the period 2008 to 2018. The study reveals that bank profitability has an important correlation with capital adequacy ratios (Al-Sharkas & Al-Sharkas, 2022).

Gržeta et al. (2023) assisted a study to investigate the impact of regulation on bank performance with bank size and other variables in a sample of 433 European banks in the 2006 to 2015 period. The findings imply that bigger banks have adeptly adjusted to the regulations that positively affect both efficiency and profitability. Conversely, because of the additional regulatory and administration burdens caused by the current regulatory scheme, small banks are experiencing difficulties with profitability and efficiency (Gržeta et al., 2023). Hersugondo et al. (2021) study the influence of bank size and bank age on banks' performance in 94

Indonesian banks from 2015 to 2019. It results that the bank size as has an insignificant positive correlation with bank performance, but bank age has a significant positive correlation with bank performance. It showed that the longer the bank was established, the higher the performance it had (Hersugondo et al., 2021).

Nugrahati et al (2018) managed a study to stipulate the perception of capital adequacy to bank profitability in Indonesian Islamic banks from 2012 to 2016 which resulted in capital adequacy level having a positive influence on profitability. The study shows that if the capital adequacy level (CAR) increases, the profitability obtained will increase (Nugrahanti et al., 2018). On the contrary, a research by Hersugondo et al. (2021) also study the relationship of capital adequacy on banks' performance in Indonesia from 2015 to 2019 result that CAR has a significant negative relationship on bank profitability (Hersugondo et al., 2021).

The inconsistencies in previous findings about the impact of factors that determine bank profitability highlight the need for further investigation into the specific drivers of profitability in the banking sector. This study will analyze the effect of the capital adequacy ratio, equity ratio, cost-income ratio, debt ratio, bank size, and non-performing loans on bank profitability in Indonesia. This paper aims to devote a deeper understanding of the influence of those variables on the banking sector in Indonesia and to assist banks in developing strategies to increase profitability amidst increasingly complex regulatory demands.

To achieve this, the study will not only employ statistical approaches but will also integrate machine learning techniques to come across complex scheme and interactions among the variables that may not be clear through conventional analysis. According to Qin (2022), Machine learning will increase the accuracy of company financial assessment while also saving a significant number of resources (Qin, 2022). Qin's (2022) study is also supported by Supsermpol et al. (2023) that state predictive models with machine learning offer insightful information that helps business to make better decisions, allocate resources, and improve long-term performance (Supsermpol et al., 2023). By leveraging machine learning, this study aims to provide more accurate predictions and insights into the factors that affecting bank profitability, offering new contributions to the existing literature. This approach will enable a comprehensive appraisal of the determinants of bank profitability in Indonesia, supporting stakeholders in making data-driven decisions to enhance financial performance.

1.2. Research Questions

Based on this background, the formulated research questions are:

1. Does total capital to total assets (TCTA) affect bank profitability?
2. Does total capital to risk-weighted assets (TCRWA) affect bank profitability?
3. Does equity ratio (EQTA) affect bank profitability?
4. Does cost-to-income ratio (CIR) affect bank profitability?
5. Does debt-to-equity ratio (DER) affect bank profitability?
6. Does bank size affect bank profitability?
7. Does non-performing loans ratio (NPL) affect bank profitability?

1.3. Research Objectives

This study aims to accomplish the following goals to give an understanding of the factors that affect bank profitability:

1. To examine and analyze the relationship between total capital to total assets (TCTA) and bank profitability.
2. To examine the relationship between total capital to risk-weighted assets (TCRWA) and bank profitability.
3. To examine and analyze the relationship between equity ratio (EQTA) and bank profitability.
4. To examine and analyze the relationship between cost-to-income ratio (CIR) and bank profitability.
5. To examine and analyze the relationship between debt-to-equity ratio (DER) and bank profitability.
6. To examine and analyze the relationship between bank size (SIZE) and bank profitability.
7. To examine and analyze the relationship between non-performing loans ratio (NPL) and bank profitability.

The findings are expected to offer insights not only for bank management but also for policymakers and regulators in optimizing regulatory frameworks that balance financial stability with sustainable profitability in the banking sector.

1.4. Research Beneficiary

The study in this paper will be useful for:

a. For academics and future researcher

This study will contribute to the body of knowledge currently accessible regarding the impact of regulations on bank profitability, specifically regarding Indonesia. By offering empirical data on the effects of capital adequacy, equity ratio, cost-income ratios, bank size, and non-performing loans on bank performance, it fills in the gaps in the literature. The results will be an invaluable resource for future studies and aid scholars in their quest for a more comprehensive comprehension of the effects of regulations on the financial industry.

b. For banks and financial practitioners

The study provides insights into optimizing profitability and operational efficiency under regulatory constraints. By understanding the influence of capital adequacy, operational costs, and quality of assets on profitability, bank management can make more informed decisions about capital management, risk assessment, and strategic planning. This knowledge can help banks align their strategies with regulatory requirements while enhancing overall performance.

c. For investors and public

Investors will benefit from the study by gaining a clearer perspective on how regulatory standards influence bank profitability, aiding them in making more informed investment decisions. For the public, including banking customers, the research promotes awareness of the factors contributing to a stable and efficient banking system, supporting better financial services and greater trust in the banking sector.

1.5. Thesis Structure

Five carefully crafted chapters comprise this thesis, which is thoughtfully divided into sections that each provide a comprehensive study of the major determinants influencing banks' profitability. The structure is intended to provide the reader with a clear and comprehensive understanding of the goals and findings of the study by leading them logically from the foundational elements of the research to the concluding insights and recommendations.

CHAPTER 1 – INTRODUCTION

The first chapter develops the context and significance of the study, defining the research problem, objectives, and key questions to be addressed. Together with explaining the thesis's structure, it also describes the extent and constraints of the research. This chapter lays the groundwork for the investigation into the variables influencing a bank's profitability by providing background information and justification.

CHAPTER 2 – LITERATURE REVIEW

The second chapter goes into extensive detail reviewing the body of literature that has already been written on the subject, including theoretical frameworks and pertinent empirical studies. It analyzes the main ideas, theories, and conclusions from earlier studies, points out gaps in the body of current knowledge, and places the study in the context of a larger body of scholarly work. In order to provide support for the research hypothesis and methodological decisions, this chapter will emphasize the theoretical underpinnings and current evidence.

CHAPTER 3 – RESEARCH METHOD

In the third chapter, the research design and methodology utilized in this study are described, along with data collection methods, sampling plans, and analytical instruments for data interpretation. In addition to discussing the steps taken to guarantee the validity and reliability of the research, it provides a detailed explanation of the reasoning behind the methods selected, guaranteeing transparency and reproducibility.

CHAPTER 4 – RESULT AND DISCUSSION

The fourth chapter presents the research findings, which include a systematic analysis of the data and its relationship to the research questions and objectives. With the help of tables, figures, and statistical analysis where necessary, it offers a thorough analysis of the results. The present discourse provides an interpretation of the results, considering the extant literature, emphasizing novel perspectives, verifying or contesting prior conjectures, and pinpointing patterns and tendencies that bear relevance to the banking industry's profitability.

CHAPTER 5 – CONCLUSION

The final chapter declares an overview of the study's discoveries and contributions while discussing how they might affect financial sector theory, practice, and policy. It also provides useful advice for interested parties, including future researchers, financial institutions, and policymakers. This chapter's discussion of the study's shortcomings and recommendations for new lines of inquiry encourages further investigation and comprehension of the intricate variables affecting banks' profitability.