CHAPTER 1

INTRODUCTION

1.1. Research Background

The COVID-19 pandemic significantly caused a gross domestic product (GDP) downturn (Altig et al., 2020) which impact is also experienced in Indonesia. Social restrictions imposed by the Indonesian government suppressed the economy (Herwany et al., 2021) and the banking industry (Goodell, 2020). The relevance of sustainable growth has become even more pronounced in the post-COVID-19 period.

McKinsey 2022 Global Banking Review report revealed that half of the world's banks undervalued USD 2.2 trillion (below the 2008 global financial crisis, while another half (including Indonesian banks) had a high ROE (Dietz et al., 2022). On top of that, the report reported that the banking sector is no longer monolithic, with some banks performing exceptionally well with increasing profitability, while others faced notable decline. Significant divergences are also noted in Indonesia. The report concluded that the divergence between banks will become more pronounced.

Sustainable growth rate (SGR), focuses on return on equity (ROE) and its retention ratio (which reflects the proportion of earnings retained in the bank) that could be achieved without new additional equity (Higgins et al., 2023). The trend correlates with the pecking order hypothesis where issuing new shares may suggest financial weakness and an inability to secure additional debt (Abeywardhana, 2017). This further outlines the importance of profit generation through internal financing (Damodaran, 2015).

In this context, the banking system of a country plays a critical role in promoting economic growth, financial stability, competitiveness, and development of both manufacturing and service sectors (Alam et al., 2021). Understanding the determinants of sustainable growth is essential given the importance of commercial banks in Indonesia for financial intermediation and the broader economy. As of December 31st, 2022, the total assets reached IDR 11.1 trillion, which represents 57% of GDP of IDR 19.6 trillion (Statistics, 2022).

Indonesia, with a GDP of IDR 19.6 trillion (approximately USD 1.319,076 million) and the world's third-largest unbanked population aims to grow the economy by 5.2% in 2023 and increase financial inclusion from 76% in 2022 to 90% by 2024. According to the EY 2021 Next Wave Global Consumer Banking Survey, traditional commercial banks remain the preferred financial providers (Wiradharma, 2023). Post-COVID-19 banks increasingly depend on internal financing, and market conditions might hinder commercial banks from raising new equity (Altig et al., 2020; Boubaker et al., 2023)

In response to the 2023 banking turmoil, which affected institutions like Silicon Valley Bank, Signature Bank, Silvergate Bank, and First Republic Bank, the Basel Committee on Banking Supervision issued a comprehensive report (Basel Committee on Banking Supervision, 2023). The collapse of several banks in the United States prompted a focus on sustainable growth for banks in Indonesia. After these events, the Indonesian Financial Services Authority (IFSA) highlighted the robustness of Indonesian commercial banks, emphasizing their strong liquidity, manageable asset quality, and exemplary performance within a well-capitalized framework, as detailed in Appendix 1.

Despite its essential nature, sustainable growth is often underappreciated and under-researched. The SGR concept is an integrated financial performance that includes both operational aspects comprising profitability and asset turnover, and financial aspects such as capital structure and retention ratio. This comprehensive metric has the potential to enhance firm value (Amouzesh et al., 2011; Higgins, 1977). Additionally, sustainable growth can serve as an early warning system, outlining potential bank failures by correlating growth to financial performance. These signals can also show specific areas requiring closer monitoring (Zheng & Escalante, 2020).

It is not only an integrated number but also represents a growth rate a firm can sustain without the need for additional equity when external financing is not feasible. According to the pecking order hypothesis, issuing new stock can send negative signals about the internal financial health. This implies the firm may struggle to raise additional debt. Consequently, the capacity for internal financing is closely connected to the firm profitability. (Damodaran, 2015).

Sustainable growth was introduced by Higgins (1977) as the maximum growth rate for firms to maintain without additional equity financing while maintaining financial leverage. (Ashta, 2008; Fonseka et al., 2012; Higgins, 1977; Ross, 2022). Increased revenues require new assets which must be financed. The faster the firms grow, the more resources the companies need to enable such grow (Higgins et al., 2023).

SGR is critical for businesses for two primary reasons. First, it serves as a key indicator of firm success, and second, sustainable growth allows shareholders to manage their equity (Zheng & Escalante, 2020). The sustainable growth model established in firm financial literature by Higgins (1977) sets growth targets within specific operating and financial constraints, motivating the organizations to "grow within personal means". Firms with significant growth rates will face financial difficulties such as financial loss, excessive costs, increased debt, insolvency, and declining market share (Mamilla, 2019). Furthermore, a sustainable growth model can identify crucial warning signs of impending failures by correlating growth with financial performance, allowing for timely intervention (Zheng & Escalante, 2020).

As Robert C. Higgins (1977) suggested, sustainable growth represented the maximum growth a firm could achieve without additional equity financing while maintaining financial leverage. (Ashta, 2008; Fonseka et al., 2012; Higgins, 1977; Ross, 2022). Previous research on sustainable growth in commercial banks within the Association of Southeast Asian Nations (ASEAN) countries has focused on the risks associated with growth rather than identifying the determinants (Isnurhadi et al., 2022).

Publications have also shown that bank-specific characteristics such as profitability, retention, asset turnover, and leverage (PRAT) influence sustainable growth (Altahtamouni, 2023; Higgins, 1977; Vasiliou & Karkazis, 2002). Additionally, research on non-PRAT characteristics including liquidity, asset quality, capital, and efficiency have produced inconsistent results regarding the effects on sustainable growth. The gaps and the lack of publications on sustainable growth in Indonesian commercial banks motivate this study. There is very limited research on sustainable growth for commercial banks in Indonesia the largest economy in Southeast Asia. (Junaidi et al., 2019; Pratama, 2019).

Furthermore, there are no publications on bank performance as a mediating factor for sustainable growth. There were inconsistent results on bank-specific characteristics of sustainable growth. Hence, a mediating factor such as bank performance is needed to bridge between them.

1.2. Research Gap

Research gaps driving this study are as follows. First, Higgins's sustainable growth theory (1977 and 1981) was not originally developed for commercial banks, implying the concept may not fully account for bank-specific factors. Existing research presents conflicting conclusions. Asset management is identified as the most influential variable within Higgins' PART model (Altahtamouni et al., 2022). This is supported by Almaqtari et al, (2019) concluding that asset management, asset quality, liquidity, and bank size are crucial factors for sustainable growth. However, asset management is found to have a negative effect on SGR which reduces the need to have a sizeable asset to support revenue growth (Vasiu & Ilie, 2018).

Second, limited research on sustainable growth for commercial banks has examined non-Higgins variables but does not include Higgins variables.

Publications have explored "non-Higgins factors" such as liquidity, asset quality, capital adequacy, and efficiency concerning commercial banks' sustainable growth. Kessy et al. (2021) also found liquidity and asset quality to be the most important factors for sustainable growth in Tanzanian commercial banks, while Junaidi et al., (2019) concluded that liquidity, asset quality, and efficiency were the key drivers for sustainable growth in Indonesian commercial banks. These results correlated with Pratama et al., (2019), who also emphasized the role of liquidity and asset quality in driving sustainable growth.

There are conflicting views on the effect of liquidity as several research shows a positive relationship between liquidity and profitability (F. Abbas et al., 2019; Teresienė et al., 2021) while others suggest that liquidity imposes a penalty on bank profitability (Atahau & Cronje, 2022; Chen et al., 2018; Junaidi et al., 2019). Liquidity is found to have a significant negative effect on SGR (Junaidi et al., 2019; Kessy et al., 2021; Pratama, 2019). However, Banerjee & Mio, (2018) found no evidence that tighter liquidity caused commercial banks to shrink balance sheets or reduce leverage.

In ASEAN countries, research has examined the role of business risk (operational revenue), operational risk (cost), liquidity risk (LDR and NPL), financial risk (capital adequacy ratio), and asset growth in contributing to sustainable growth (Isnurhadi et al., 2022). However, using the loan-to-deposit Ratio (LDR) as a liquidity proxy may not provide sufficient measurement, as it excludes investments in marketable securities.

Financial intermediaries by banks also evolved from securities sold or acquired in terms of portfolio theory (R. Gupta, 1978). Banks also raise funds through the issuance of marketable securities (Garner & Suthakar, 2021). Banks issue deposits and use proceeds to invest in securities (Fama, 1980). Indonesian commercial banks also invest excess funds in marketable securities such as government bonds and corporate bonds which are not reflected in the LDR.

Indonesian institutions invested in bonds and subordinated debts as well as raised funding from bonds and subordinated debts ("non-traditional funding sources") as shown in Appendix 2 and Appendix 3. The funds received are generated as part of the bank's funding strategy to have a longer-duration source of funds. The investment in marketable securities and the non-traditional funding sources should be considered in LDR. Therefore, a modification to LDR as the liquidity proxy for commercial banks is needed.

Before the collapse, Silicon Valley Bank (SVB) had a low LDR of 43% (Vo & Le, 2023), implying good liquidity based solely on loans and deposits. However, SVB had also invested heavily in marketable securities, which were not reflected in the LDR. By the end of 2022, 55% of SVB's assets were invested in securities which was a ratio exceeding the average for US commercial banks. These securities which were classified as "held-to-maturity" were not valued as per the market value. A 1% rise in interest rates would decrease the value by 6% with an average duration of six years (Rossi, 2023).

The liquidity profile of commercial banks is influenced by funding structure. A stable and low-cost source of funding such as current and savings accounts (CASA) provides lower interest costs for commercial banks. However, deposits can be volatile and susceptible to runs during times of uncertainty. The proportion of customer deposits to total assets, known as the deposit ratio becomes critical in these situations (Dang, 2020). A higher CASA ratio is more beneficial as the bank obtains the funds at a lower cost of funding (Daryanto et al., 2020). Despite the importance of low-cost funding, there is a lack of research on the impact of sustainable growth.

Recent bank failures show that duration mismatches in assets not only create liquidity and interest rate risks but also funding risks. SVB's reliance on deposits from a small group of venture capitalists increased the vulnerability to bank runs. Bank performance is positively associated with increased deposit funding, while funding costs are negatively related to bank performance (Pak, 2020). When external financing is costly, firms tend to invest in liquid assets to balance the low returns on these assets against the need to avoid expensive external funding (C-S Kim, David C.Mauer, 1998).

Third, based on a comprehensive review of the existing literature, two bank-specific characteristics namely funding, and loan growth evolve as contributors to bank performance but have not been examined concerning sustainable growth. Appendix 12 shows the study of these variables in the context of bank performance. The study of these variables in the context of sustainable growth is shown in

Appendix 13. However, to the best of my knowledge, there is no research on funding and loan growth on sustainable growth.

Funding serves as the primary source of funds which is backed by deposit insurance and reserve (Bryant, 1980) while loan growth drives financial intermediation in society (Werner, 2016).

There is a significant disparity in the low-cost funding (CASA ratio) between Indonesia's top four commercial banks and the average institutions with a ratio of 79% versus 29% in 2022 as observed in Appendix 4. In 2022, the CASA ratio for the top four institutions increased, such as BCA (from 79% to 82%), Bank Mandiri (70% to 73%), BNI (69% to 72%), and BRI (63% to 67%). CASA also known as non-time or non-maturity deposits comprise the bulk of low-cost funding for commercial banks. In the United States, non-time deposits account for over 75% of total deposits, up from a historical average of less than 60% (Gerlach et al., 2018).

To meet the capital regulatory requirements, commercial banks may increase capital ratios by reducing loan growth and shrinking assets, specifically after economic recessions. Malovaná and Ehrenbergerová (2022) showed the negative effect of capital on loan growth.

Fourth, previous research has not examined bank-specific characteristics' direct and indirect effects on sustainable growth. While bank performance is important to sustainable growth, there has been no research on the mediating role of bank performance in the relationship between bank-specific variables and sustainable growth. Existing research on sustainable growth in commercial banks has not explored the mediating effect of bank performance (Altahtamouni et al., 2022; Isnurhadi et al., 2022; Junaidi et al., 2019; Pratama, 2019).

Although Nastiti et al., (2019) examined profitability as a mediator for sustainable growth in manufacturing firms, and Ganiyy et al., (2017) examined the profitability as a mediator on the liquidity risk and cost efficiency, no research has investigated the mediating effect of bank performance on sustainable growth in commercial banks in Indonesia. Ramli et al., (2022) further explored the mediating effect of sustainable growth on share price performance in Shariah-compliant firms, but no research has been conducted on the mediating role of bank performance in sustainable growth within commercial banks.

The importance of non-Higgins factors, such as liquidity, asset quality, capital adequacy, and efficiency, cannot be overlooked when considering the sustainability of commercial banks. For example, SVB collapsed due to a bank run triggered by liquidity shortages and insolvency. A bank's default risk increases when liquidity declines, while abundant liquidity may lead commercial banks to take higher risks. This was evident in SVB's case, where the bank invested heavily in long-term US government bonds, assuming minimal counterparty risk. However, rising interest rates caused substantial unrealized losses. When SVB’s concentrated depositors withdrew funds, the bank sold USD 20 billion in securities at a significant loss. When SVB announced a capital-raising exercise, customers withdrew up to USD 42 billion in deposits. (Vo & Le, 2023).

Funding is crucial for a bank to operate because its composition determines the cost of funds, and when not optimal will affect the operating activities. Current and saving accounts are the cheapest funding sources available and the CASA Ratio reflects the proportion of low-cost funding in total third-party funds. A more consistent long-term fund is useful in mitigating the negative impacts of return volatility. The deposit channel facilitates a greater flow of low-cost funds. (Ahamed et al., 2021).

Low-cost funding can lessen funding volatility due to the broad clientele. Enhanced access to bank deposits can strengthen the financing base of commercial banks, thereby improving resilience during periods of financial strain. This underscores the beneficial effect of increased availability of bank deposits on overall bank stability. (Han & Melecky, 2013).

When funding costs rise, commercial banks face constraints in offering competitive lending rates compared to competitors (Yiqiang Jin, 2019). The quality of funding, which reflects the cost of funds, significantly impacts the net interest margin. To better understand and manage the dynamics of lending rates, Commercial banks should focus on the cost and structure of the liabilities. (Illes et al., 2019). Higher funding costs make commercial banks more sensitive to changes in central bank rates. (Bürgi & Jiang, 2023).

Asset quality is crucial for commercial banks since lending should cover the full amount at stake. Further research is needed on the effect of loan loss provisions (LLP) on sustainable growth and bank performance. Sustainable growth is crucial for commercial banks as it allows firms to focus on key growth factors and improve performance (Harkleroad, 1993), while balancing operational and financial strategies (Arora et al., 2018). However, research examining the impact of bank-specific characteristics on sustainable growth is limited and yields varied results.

Furthermore, there is a lack of research on the determinants of sustainable growth for commercial banks in Indonesia. Although research exists on sustainable growth in the banking sector of ASEAN countries, the publications primarily evaluate how risks can affect bank soundness and sustainable growth (Isnurhadi et al., 2022). This raises questions about how Indonesian commercial banks can maintain sustainable growth and resilience, specifically considering the recent collapses of commercial banks in the US and Europe. What factors determine performance and sustainable growth?

The sustainability of a bank's operations relies on the ability to generate healthy earnings. When a bank neglects loan quality, it risks incurring loan losses that exceed the booked interest revenue. The impact on asset quality may take considerable time to manifest (Newman, 2004). According to Higgins's model, the rate of return on equity (ROE) and retained earnings significantly influence sustainable growth (Altahtamouni et al., 2022), showing a strong correlation between financial leverage and SGR (Rahim, 2017).

Although there is extensive research on the determinants of bank performance, the research on sustainable growth is limited. There is a notable scarcity of studies examining the interplay between these dimensions. Most existing literature focuses on either Higgins factors or non-Higgins factors as determinants of sustainable growth. However, the role of bank performance as a mediator in the relationship between the determinants of sustainable growth and the actual achievement of such sustainable growth remains under-explored. This research will address this gap by also investigating how bank performance influences the relationship between bank-specific characteristics and sustainable growth in the context of commercial banks.

1.3. Problem Statement

McKinsey 2022 Global Banking Review report triggered questions on how banks in Indonesia achieve certain sustainable growth. The concept of sustainable growth, as outlined by Robert C. Higgins, pertains to the optimal growth rate a company can attain without altering its financial policies. For commercial banks, achieving sustainable growth is crucial for balancing expansion with financial stability, thereby ensuring long-term viability.

Understanding the factors that determine sustainable growth is vital for developing strategies that foster the sustainable growth of commercial banks in Indonesia. Despite the acknowledged importance of sustainable growth and the critical role of commercial banks in facilitating it, there is limited understanding of how bank performance mediates the relationship between bank-specific characteristics and sustainable growth. This study seeks to fill this gap by exploring how bank-specific characteristics impact sustainable growth directly and indirectly through bank performance. By providing insights into these dynamics, the study aims to contribute to the development of effective strategies for promoting sustainable growth in the banking sector.

In addition to the above, it is intriguing to evaluate the existence of the indirect effect of bank performance on sustainable growth. This is driven from a similar perspective from non-bank research on the effect of profitability as a mediator to sustainable growth (Nastiti et al., 2019a). Previous banking research has not examined the direct and indirect effects of bank-specific characteristics on sustainable growth.

This research examines the determinants of sustainable growth in the Indonesian banking industry, focusing on the mediating role of bank performance. Considering the importance of sustainable growth for commercial banks, it is essential to validate the direct and indirect influence of bank performance of each bank-specific characteristics on sustainable growth.

1.4. Research Questions

This research addresses the following questions including:

1. To what extent does each bank-specific characteristics (liquidity, funding, loan growth, asset quality, asset management, efficiency, financial leverage, and capital) affect bank performance in Indonesia?
2. To what extent does each bank-specific characteristics (liquidity, funding, loan growth, asset quality, asset management, efficiency, financial leverage, and capital) affect sustainable growth for banks in Indonesia?
3. To what extent does bank performance mediate each bank-specific characteristics (liquidity, funding, loan growth, asset quality, asset management, efficiency, financial leverage, and capital) on sustainable

growth for banks in Indonesia?

1.5. Research Objectives

This research addresses the following objectives including:

1. To examine determinants of bank-specific characteristics (liquidity, funding, loan growth, asset quality, asset management, efficiency, financial leverage, and capital) on bank performance in Indonesia.
2. To examine determinants of bank-specific characteristics (liquidity, funding, loan growth, asset quality, asset management, efficiency, financial leverage, and capital) on sustainable growth for banks in Indonesia.
3. To examine the mediating effect of bank performance for each bank-specific characteristic (liquidity, funding, loan growth, asset quality, asset management, efficiency, financial leverage, and capital) on sustainable growth for banks in Indonesia.

1.6. Research Scope

The research covers all commercial banks in Indonesia from 2013 to 2022. As of December 31, 2022, there are one hundred and six commercial banks in Indonesia, forty-seven of which are listed in the Indonesia Stock Exchange (IDX). This analysis focuses on listed commercial banks since the measurement of SGR includes the retention of earnings, which is only available for listed commercial banks. Comparison of listed commercial banks versus commercial banks, in terms of number of banks only represents 44%, however total assets (87%), total risk-weighted assets (87%), gross loans (84%), net loans (83%), provision loan losses balance sheet (90%), current accounts (82%), savings accounts (89%), CASA (88%), operating income (65%), operating expense (87%), net income (95%), and market capitalization (100%) as shown in Appendix 5. Appendix 6 further provides a detailed list of these listed commercial banks.

1.7. Research Significance

There has been abundant research on bank performance, but limited publications are available for sustainable growth for commercial banks. Currently, there is no research on sustainable growth with bank performance as mediators for commercial banks in Indonesia.

1.7.1. Practical Significance

This research proposes empirical evidence to banking practitioners and regulators on the key factors affecting banking performance and sustainable growth, as well as mediating bank performance on bank-specific characteristics on sustainable growth for listed commercial banks in Indonesia.

1.7.2. Theoretical Significance

The concept of sustainable growth has been recognized since Higgins (1977). This research enhances the Higgins model by offering empirical evidence on factors influencing the sustainable growth of Indonesian commercial banks. It specifically contributes to the understanding of how bank-specific characteristics affect sustainable growth, with bank performance as a mediator.

1.8. Writing Structure

This research consists of five chapters with various sub-chapters. The first chapter outlines the purpose and structure of the research, formalizing the questions to be answered through empirical evidence. The research aims to contribute to the enhancement of sustainable growth in commercial banks theory, benefiting both academic and professional communities.

The second chapter provides context from a theoretical perspective to develop an empirical research model, and the variables used in the model construction. To address the research questions, hypotheses are proposed and assessed in the following chapters. The third chapter includes research procedures, such as data collection and organization, as well as data analysis from identified research objects and units of analysis. The fourth chapter presents the research results. Finally, the fifth chapter discusses the conclusion, practical implications, and recommendations for future research on sustainable growth in the banking sector.