

Liquidity vs. Sustainability Dilemma: Do Loan Ratios Hinder Social Transparency in Banks of Emerging Asia-Pacific?

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Abstract. The aim of this study is to analyze the fundamental dilemma in banking concerning the trade-off between liquidity management and sustainability commitments, with a focus on the banking sector in emerging Asia-Pacific economies. The findings reveal that banks with higher Total Loans to Total Deposits (TLTD) ratios tend to exhibit stronger Social Disclosure Scores (SDS), driven by stricter regulatory oversight. In contrast, banks with higher Total Loans to Total Assets (TLTA) ratios demonstrate weaker sustainability disclosures, prioritizing financial performance over ESG commitments. This study highlights the crucial role of regulatory pressure in encouraging banks to improve ESG transparency, even when short-term financial gains are prioritized. The findings underscore the need for policymakers to develop regulatory frameworks that not only enforce sustainability disclosures for high-risk banks but also incentivize asset-heavy institutions to integrate ESG principles into their core financial strategies, ensuring a balanced approach to sustainability and financial stability.

Keywords: Total Loans to Total Deposits, Social Disclosure Scores, Total Loans to Total Assets

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Introduction

The banking sector in emerging Asia-Pacific economies is at a critical juncture, navigating the complex interplay between liquidity management and sustainability commitments. While banks play a pivotal role in economic growth by facilitating credit distribution, they are increasingly expected to align their operations with Environmental, Social, and Governance (ESG) principles. However, despite the growing emphasis on sustainable finance, many financial institutions in these regions continue to struggle with weak ESG disclosures, regulatory inconsistencies, and transparency issues (Ellili, 2022; Nicolò et al., 2024). These challenges not only undermine investor confidence but also hinder long-term financial stability, making it imperative to explore the factors influencing banks' social transparency. In particular, the extent to which liquidity constraints measured through loan to deposit (LTD) and loan to asset (LTA) ratios impact sustainability commitments remains an underexplored yet crucial aspect of banking strategy.

Liquidity management has always been a fundamental aspect of banking operations. As financial institutions seek to maximize profitability, they often rely on high loan ratios to drive credit expansion. On the one hand, an elevated LTD ratio indicates that a bank is utilizing a substantial portion of its deposits for lending, which can enhance short-term earnings. On the other hand, excessive reliance on loan-based revenue introduces liquidity risks, leaving banks vulnerable to financial instability during economic downturns (Erin & Ackers, 2024). Similarly, a high LTA ratio suggests an aggressive approach to lending, which, while supporting economic growth, may also reduce operational flexibility and limit the ability to invest in sustainability initiatives (Chagas et al., 2022). As banks prioritize financial resilience, they may allocate fewer resources toward ESG disclosures, ultimately diminishing transparency and accountability. This trade-off highlights the tension between maintaining liquidity and committing to responsible banking practices.

The challenge becomes even more pronounced in emerging Asia-Pacific economies, where regulatory frameworks tend to be less stringent compared to developed markets. Unlike their counterparts in advanced financial systems, banks in these regions often operate within an environment that allows for greater flexibility in disclosure practices. While this

flexibility enables financial institutions to focus on growth, it also raises concerns about selective reporting, where banks disclose only the sustainability metrics that align with their financial interests (Ko et al., 2024). Moreover, as competition intensifies, many banks prioritize credit expansion over ESG commitments, leading to superficial compliance with sustainability frameworks rather than genuine integration of responsible lending principles (Abeysekera et al., 2021). The lack of comprehensive regulatory oversight further exacerbates these challenges, making it difficult to establish uniform standards for transparency across the region. Consequently, stakeholders—ranging from investors to regulatory bodies—face significant uncertainty regarding the authenticity of banks' sustainability disclosures.

Despite the growing body of literature on financial stability and ESG performance, little research has been conducted on the direct impact of loan ratios on banks' social transparency. While previous studies have explored how financial health influences ESG practices, they have largely overlooked the extent to which high LTD and LTA ratios affect sustainability reporting (Eng et al., 2022). This gap is particularly relevant because financial institutions facing liquidity constraints may strategically adjust their disclosure practices to maintain a favorable market image, potentially leading to "greenwashing" (Jaiswal et al., 2024). Furthermore, regulatory disparities across emerging markets complicate this relationship. In countries with weaker oversight, banks may engage in minimal ESG compliance, while in regions with stricter regulations, financial institutions may be compelled to enhance transparency regardless of their liquidity position (Chagas et al., 2022). Additionally, corporate governance structures play a crucial role in shaping sustainability commitments. While research suggests that strong governance enhances ESG performance, there is limited evidence on how governance quality interacts with financial strategies, particularly in banks with high loan ratios (Erben Yavuz et al., 2024). These knowledge gaps underscore the need for a deeper investigation into how financial strategies shape banks' sustainability commitments.

Given these complexities, this study seeks to examine the extent to which loan ratios influence banks' transparency in ESG disclosures, particularly in the emerging Asia-Pacific context. By focusing on Total Loans to Total Deposits (TLTD) and Total Loans to Total Assets (TLTA) ratios, the research aims to provide empirical insights into whether financial institutions prioritize short-term profitability

over social responsibility. If high loan ratios correlate with weaker transparency, it would suggest that liquidity pressures push banks to minimize ESG disclosures in favor of maintaining financial stability (Mahmood et al., 2021). Conversely, if banks with aggressive lending strategies maintain robust ESG disclosures, it may indicate that sustainability and profitability can coexist, provided that strong governance structures and regulatory frameworks are in place.

Literatur Review

Stakeholder Theory

Stakeholder Theory (Freeman, 1984) argues that corporations, including banks, should prioritize the interests of all stakeholders rather than solely focusing on maximizing shareholder wealth. This approach asserts that by creating value for employees, customers, suppliers, regulators, and the broader community, businesses can achieve long-term success and sustainability (Erin & Ackers, 2024; Nicolò et al., 2024). Within the banking sector, this theory has significant implications, as financial institutions play a crucial role in economic stability and must balance profitability with ethical responsibilities. Banks that actively engage with stakeholders and align their operations with Sustainable Development Goals (SDGs) not only fulfill their ethical obligations but may also experience improved financial performance and regulatory compliance (Chagas et al., 2022; Zarefar et al., 2022).

A central element of Stakeholder Theory is accountability, particularly concerning transparency in sustainability disclosures. Research suggests that organizations perceived as socially responsible foster stronger stakeholder trust, leading to greater customer loyalty and investor confidence (Abeysekera et al., 2021; Kouaib, 2022). In banking, institutions that effectively communicate their ESG commitments and integrate sustainability into their business models are more likely to secure long-term financial resilience. Conversely, banks with high loan exposure often prioritize short-term profitability at the expense of stakeholder engagement, which weakens their commitment to social disclosure (Dong et al., 2022; Erin & Ackers, 2024). As a result, financial pressures can drive banks to adopt a risk-averse stance on sustainability reporting, diminishing transparency and eroding trust among key stakeholders (Khatib, 2024).

Legitimacy Theory

Legitimacy Theory (Suchman, 1995) suggests that organizations strive to align their operations with societal expectations to maintain legitimacy. In the banking sector, this means demonstrating socially acceptable practices through corporate social responsibility (CSR) disclosures and sustainability initiatives (Ardiana, 2019; Carmo & Miguéis, 2022; Kumar et al., 2022). Banks that proactively engage in transparent sustainability reporting not only strengthen their public image but also reduce reputational risks and build stronger stakeholder relationships (Kouaib, 2022; Michelon, 2011). Furthermore, obtaining environmental certifications, such as ISO 14001, serves as an additional means to reinforce legitimacy and signal a commitment to responsible banking (Chagas et al., 2022).

Beyond reputational benefits, legitimacy plays a strategic role in operational success. Research indicates that banks with strong sustainability disclosures tend to gain stakeholder trust, leading to improved financial performance (Aureli et al., 2016; Nwobu, et al., 2021). By communicating their CSR efforts effectively, financial institutions can alleviate external scrutiny and reduce stakeholder pressure, ensuring long-term stability (Bani-Khalid, 2019; Hummel & Schlick, 2016). However, in times of crisis, banks must engage in transparent communication to restore legitimacy, as failure to do so can exacerbate stakeholder distrust (Aureli et al., 2016; Corazza et al., 2022).

Legitimacy Theory (Suchman, 1995) also highlights how banks strategically manage sustainability disclosures to align with prevailing societal norms. Some institutions engage in impression management, emphasizing selective ESG metrics to enhance their legitimacy while mitigating stakeholder criticism (Othman et al., 2017; Touboul & Kozan, 2020). Ultimately, sustainability reporting is not merely a regulatory obligation but a fundamental element of corporate strategy that enables banks to navigate stakeholder expectations and maintain market credibility (Aureli et al., 2020; Dagilienė & Nedzinskienė, 2018).

Agency Theory

Agency Theory (Jensen & Meckling, 1976) explores the conflicts of interest between principals (shareholders) and agents (managers), emphasizing how managers may prioritize their self-interests over shareholder value and broader stakeholder considerations. In the banking sector, this

misalignment often manifests in decision-making that prioritizes short-term financial performance over long-term sustainability and transparency (Dong et al., 2022; Kumar et al., 2022). Informational asymmetries exacerbate this issue, as managers possess deeper knowledge of internal operations and may selectively disclose information that enhances their personal position, such as emphasizing profitability while downplaying risks (Gurol & Lagasio, 2023; Hu & Loh, 2018).

The implications of Agency Theory in banking extend to corporate social responsibility (CSR) and sustainability disclosures. When sustainability initiatives do not directly enhance financial returns, managers may deprioritize them, leading to weaker transparency and diminished stakeholder trust (Zhu et al., 2024). Research indicates that self-serving managerial behavior can result in underreporting risks and failing to allocate resources to voluntary ESG disclosures (Eng et al., 2022; Thun & Zülch, 2023). However, strong governance structures, such as independent board oversight, can mitigate these agency conflicts by aligning managerial actions with shareholder and stakeholder interests, ultimately improving sustainability reporting (Abeysekera et al., 2021; Rathnayaka Mudiyansele, 2018).

High leverage further intensifies agency conflicts in the banking sector. Banks with elevated loan exposure often prioritize financial stability over social transparency, as managers face pressure from creditors and investors to maintain short-term profitability (Ardiana, 2019; Chagas et al., 2022). This pressure discourages voluntary disclosures that do not yield immediate financial benefits, leading to a risk-averse approach to sustainability commitments (Gurol & Lagasio, 2023; Helfaya & Moussa, 2017). Consequently, organizations with significant financial obligations may strategically limit sustainability disclosures to avoid reputational risks, favoring conservative communication with stakeholders (Kouaib, 2022; Martínez-Ferrero & García-Sánchez, 2017). Thus, while Agency Theory explains managerial tendencies toward self-interest, robust governance mechanisms and regulatory frameworks are essential to ensuring that banks uphold transparency and sustainability obligations despite financial pressures.

The Relationship between TLTD and Social Disclosure

The loan-to-deposit ratio (TLTD) serves as a critical indicator of a bank's liquidity management and

credit expansion policies. A high TLTD suggests that banks are utilizing a significant portion of their deposit base for lending, potentially increasing financial risk and reducing their capacity to allocate resources to corporate social responsibility (CSR) and social disclosure (Dong et al., 2023). When banks operate with elevated TLTD levels, they prioritize financial stability and risk mitigation over voluntary sustainability initiatives, as liquidity pressures demand a more conservative approach to resource allocation (Patel et al., 2024).

In highly competitive banking environments, institutions with high TLTD ratios may adopt aggressive lending strategies to sustain profitability, often at the expense of proactive social disclosure (Gurol & Lagasio, 2023). The imperative to maintain sufficient liquidity and meet regulatory capital requirements forces banks to focus on short-term financial performance rather than long-term ESG commitments (Moufity et al., 2024). Consequently, social and sustainability disclosures may be deprioritized unless mandated by regulatory frameworks or driven by reputational concerns (Sannino et al., 2020).

However, as regulatory scrutiny and stakeholder expectations for ESG transparency grow, banks with high TLTD must find ways to reconcile liquidity risk management with social responsibility. Integrating ESG factors into credit risk assessments and aligning lending policies with sustainability objectives can mitigate the negative impact of high TLTD on social disclosure. By embedding responsible banking practices, financial institutions can enhance transparency, foster stakeholder trust, and ensure long-term resilience (Ellili & Nobanee, 2023; Taliento et al., 2019). Based on the arguments presented, the proposed hypotheses are:

H1: Total Loans to Total Deposits (TLTD) negatively affects a bank's Social Disclosure Score (SDS) in emerging Asia-Pacific economies.

The Relationship between TLTA and Social Disclosure

The loan-to-asset ratio (TLTA) measures the extent to which a bank's total assets are committed to lending activities. A high TLTA suggests that banks allocate a significant portion of their asset base to loans, increasing exposure to credit risk and potentially reducing investments in non-financial priorities such as corporate social responsibility (CSR) and sustainability disclosures (Dong et al., 2023). Unlike

TLTD, which directly reflects liquidity risk, TLTA provides insight into a bank's overall asset utilization strategy and its implications for long-term financial stability and transparency.

Banks with high TLTA ratios may experience pressure to maintain asset quality and profitability, often leading to a trade-off between credit expansion and social responsibility initiatives (Patel et al., 2024). When financial institutions commit substantial resources to lending, their ability to engage in voluntary sustainability reporting declines, as capital is primarily directed toward risk management and ensuring regulatory compliance (Moufty et al., 2024). In such cases, sustainability disclosures may be viewed as a secondary concern, undertaken primarily to satisfy external regulatory or reputational demands rather than as a strategic priority (Gurol & Lagasio, 2023).

Moreover, empirical studies suggest that banks with high TLTA are more prone to short-term lending strategies that may conflict with long-term ESG commitments (Paolone et al., 2024). These institutions often prioritize credit expansion to maximize returns, potentially compromising transparency in sustainability reporting and weakening stakeholder confidence (Patel et al., 2024; Vishnu Nampoothiri et al., 2024).

Nevertheless, financial institutions can enhance social disclosure despite high TLTA by integrating ESG criteria into their lending frameworks. By adopting responsible lending practices and embedding sustainability considerations into credit risk assessments, banks can align financial growth with social and environmental responsibility. In the long run, institutions that balance asset allocation with transparency in social disclosure will not only improve their reputation but also strengthen stakeholder trust and achieve sustainable financial performance (Ellili & Nobanee, 2023; Taliento et al., 2019). Based on the arguments presented, the proposed hypotheses are:

H2 : Total Loans to Total Assets (TLTA) negatively affects a bank's Social Disclosure Score (SDS) in emerging Asia-Pacific economies.

Research Method

This study adopts a quantitative research approach with panel data regression analysis to examine the relationship between loan ratios Total Loans to Total Deposits (TLTD) and Total Loans to Total Assets (TLTA) and Social Disclosure Score (SDS). The use of panel data methodology allows for a robust

analysis by capturing both cross-sectional and time-series variations, offering deeper insights into the potential causal link between financial indicators and sustainability transparency. By integrating both dimensions, this approach ensures that findings are statistically significant and generalizable across different banking institutions over time. Given that sustainability disclosures are increasingly linked to financial performance, analyzing these dynamics within a longitudinal framework provides a more comprehensive understanding of their long-term effects (Gholami et al., 2023; Malik & Kashiramka, 2025).

Sample Selection

This study examines commercial banks operating in emerging Asia-Pacific economies, including Indonesia, Malaysia, Thailand, Vietnam, the Philippines, and India, to analyze the relationship between loan ratios and sustainability disclosures. These economies present heterogeneous regulatory environments, influencing how banks report ESG-related information.

The selection process prioritizes banks with available financial and ESG data spanning at least five consecutive years between 2009 and 2023 to ensure meaningful trend analysis. This requirement aligns with research highlighting the necessity of longitudinal data for evaluating sustainability disclosure impacts (Dong et al., 2023). Additionally, ensuring consistency in financial reporting allows for robust comparisons across different regulatory landscapes (Eng et al., 2022). The final sample used in this study can be seen in the table below.

Table 1

Final Research Sample		
Country	Banks with Complete Data	Total Sample
Bangladesh	1	15
China	19	285
India	26	390
Indonesia	17	255
Kazakhstan	1	15
Malaysia	10	150
Pakistan	9	135
Philippines	9	135
Sri Lanka	2	30
Thailand	10	150
Vietnam	9	135
Total	102	1,695

Source: Research Data, 2025

This study examines 102 banks from Emerging Asia-Pacific countries, yielding a total of 1,695 observations over the period 2009–2023. The distribution of the sample varies significantly across

countries, highlighting differences in data availability and banking sector characteristics. India contributes the largest proportion of the total sample, accounting for 23.01% (390 observations), followed by China (16.81%, 285 observations) and Indonesia (15.04%, 255 observations). These three countries together represent more than 54% of the total dataset, suggesting a higher level of banking activity and data availability in these markets. Similarly, Malaysia and Thailand each contribute 150 observations (8.85%), reflecting a substantial presence in the sample. Meanwhile, Pakistan, the Philippines, and Vietnam each account for approximately 7.97% (135 observations), indicating a moderate representation of banks from these countries. Conversely, countries such as Bangladesh and Kazakhstan exhibit the smallest sample sizes, with only 15 observations each, representing merely 0.88% of the total dataset. This suggests either a limited number of eligible banks or incomplete data availability in these financial markets. Likewise, Sri Lanka contributes 30 observations (1.77%), placing it among the least represented nations in the study.

Variables and Measurement

a. Independent Variables (Financial Ratios)

- Total Loans to Total Deposits (TLTD) = *Total Loans / Total Deposits*

Measures the extent to which a bank relies on deposits to finance lending. The Total Loans to Total Deposits (TLTD) ratio is a key metric for assessing a bank's liquidity and financial health. A higher TLTD indicates greater reliance on deposits for lending, increasing liquidity risk during downturns, while a lower ratio suggests a conservative approach with stronger liquidity (Erin & Ackers, 2024).

- Total Loans to Total Assets (TLTA) = *Total Loans / Total Assets*

The Total Loans to Total Assets (TLTA) ratio measures the proportion of a bank's assets allocated to lending, reflecting its risk strategy. Higher TLTA suggests aggressive lending but increased risk, while lower TLTA indicates a conservative approach (Eng et al., 2022).

b. Dependent Variable (Social Disclosure Score - SDS)

- The Social Disclosure Score (SDS) measures transparency in ESG reporting, covering community involvement, human rights, corporate ethics, and labor policies (Eng et al., 2021). These scores, ranging from 0 to 100,

reflect the quality of sustainability disclosures, with higher values indicating stronger social performance. Higher SDS enhances reputation and financial performance (Chagas et al., 2022), fosters stakeholder trust (Dong et al., 2023), and ensures transparency through systematic benchmarking in evolving regulatory landscapes (Erin & Ackers, 2024).

The control variables in this study include market capitalization (MC), firm value (TQ), year, and country. Market capitalization is obtained by taking the natural logarithm of a company's total market value, which is calculated by multiplying the company's stock price by the number of outstanding shares. Controlling for market capitalization is essential because companies of different sizes have varying access to funding sources, risk levels, and investment strategies. On the other hand, firm value is measured using Tobin's Q ratio, which compares the market value of a company's total assets (both physical and financial) to the replacement cost of those assets. This ratio helps assess whether the company is overvalued or undervalued in the market, and controlling for firm value ensures that differences in valuation do not distort the results. Valuation discrepancies can influence key decision-making strategies, such as leverage levels, dividend policies, and investment decisions.

Additionally, controlling for temporal and geographical factors enhances the robustness of the analysis. By accounting for the year variable, the study captures the effects of economic cycles or specific global events, such as financial crises or significant policy reforms. Similarly, controlling for the country factor improves the accuracy of the analysis by isolating the primary influence under examination without interference from cross-country variations.

To test the hypotheses, this study employs multiple linear regression using the Ordinary Least Squares (OLS) model, ensuring a rigorous statistical approach to examine the relationships among variables. The regression analysis is conducted using Stata version 17, which provides advanced econometric tools for handling panel data and performing robustness checks. The statistical model for this study is:

$$SDS_{it} = \alpha + \beta_1 TLTD_{it} + \beta_2 TLTA_{it} + \beta_3 MC + \beta_4 TQ_{it} + Year + Country + \epsilon_{it}$$

Description:

- SDS = Social Disclosure Score
 TLTD = Total Loans to Total Deposits
 TLTA = Total Loans to Total Assets
 MC = Market Capitalization
 TQ = Firm Value
 Year = The observation period from 2009 to 2023
 Country = 10 emerging countries in the Asia-Pacific region
 ε = Error term

Results and Discussion

Descriptive Statistic and Corelation

Table 2 presents the descriptive statistics for the study variables, providing an overview of their central tendency and dispersion which are essential for the analysis.

Statistic	N	Min	Max	SD	Mean
SDS	1256	0.00	37.85	12.48	19.46
TLTD	1604	57.21	108.81	16.11	82.41
TLTA	1610	40.77	72.99	10.32	58.80
MC	1501	23.68	31.27	2.53	26.51
TQ	1489	0.96	1.17	0.07	1.03

Source: Stata output, 2025

The descriptive statistics in the table 2 highlight variations in banking strategies, governance practices, and financial positioning among banks in Emerging Asia-Pacific. The dataset represents an unbalanced panel, reflecting differences in data availability across banks and over time. This unbalanced nature underscores the need for careful interpretation of trends and relationships, as missing observations may introduce heterogeneity in the analysis. The Total Loans to Total Deposits and Total Loans to Total Assets ratios suggest that while banks have diverse lending strategies, they generally maintain a stable asset allocation approach. The moderate variability in Total Loans to Total Deposits indicates that some banks are more aggressive in utilizing deposits for lending, while others adopt a more conservative approach. The Social Disclosure Score exhibits high variability, suggesting significant differences in ESG adoption and transparency across banks. This may be influenced by variations in regulatory frameworks, stakeholder expectations, and corporate governance practices in different countries. In contrast, market capitalization and firm

value display relatively low variability, indicating that most banks in the sample have similar market sizes and valuation levels. This stability implies that despite differences in lending and sustainability practices, banks in the region tend to maintain comparable market expectations in terms of growth and profitability. To ensure robustness in the analysis and mitigate potential biases from extreme values, continuous variables have been winsorized at the 5% level. This approach helps reduce the influence of outliers that may distort statistical inferences while preserving the overall distribution of the data. By applying winsorization, we enhance the reliability of our findings, particularly in an unbalanced panel dataset where extreme observations could disproportionately affect estimations. The correlation matrix of the research data can be seen in the table below.

	SDS	TLTD	TLTA	MC	TQ
SDS	1				
TLTD	0.249	1			
TLTA	0.111	0.714	1		
MC	0.088	0.259	0.192	1	
TQ	-0.110	0.128	0.044	0.399	1

Source: Stata output, 2025

The correlation matrix shows the relationships between five variables: SDS, TLTD, TLTA, MC, and TQ. The strongest correlation is between TLTD and TLTA (0.7137), suggesting that companies with higher long-term debt tend to have higher total liabilities relative to total assets. MC has a moderate positive correlation with TQ (0.3994), indicating that companies with larger market value tend to perform better. Other relationships are relatively weak, with SDS showing a slight negative correlation with TQ (-0.1095). The results of the hypothesis testing can be seen in the table below.

Variable	Coefficient	t	p-value
Constant	-3997.089	-29.650	0.000***
TLTD	0.185	7.870	0.000***
TLTA	-0.090	-2.530	0.011**
MC	-0.095	-0.680	0.497
TQ	1.378	0.280	0.781
Country			Include
Year			Include

Note: *** significant at the 1% level; ** significant at the 5% level; * significant at the 10% level

Source: Stata output, 2025

Interpretation of Hypothesis Testing Results

This study examines the relationship between a bank's lending structure and its Social Disclosure Score (SDS) in Emerging Asia-Pacific economies. Specifically, the hypotheses test whether Total Loans to Total Deposits (TLDR) and Total Loans to Total Assets (TLTA) negatively influence social disclosure practices. The regression model, with 1,229 observations, demonstrates an R-squared value of 0.4579, indicating that approximately 45.79% of the variation in SDS is explained by the independent variables.

All regression assumptions have been met, ensuring the validity of the model. There are no issues of multicollinearity, heteroscedasticity, or autocorrelation, confirming that the estimated relationships are statistically reliable and unbiased. The absence of multicollinearity ensures that independent variables do not exhibit strong intercorrelations, while the homoscedasticity assumption guarantees that variance remains constant across observations. Additionally, the lack of autocorrelation eliminates concerns about serial dependence, further strengthening the robustness of the findings.

The results reveal that TLDR has a positive and statistically significant impact on SDS (coefficient = 0.1853, p-value = 0.000). This finding contradicts H1, which posited a negative relationship, suggesting instead that banks with higher TLDR ratios tend to engage in more extensive social disclosure practices. A possible explanation is that banks heavily reliant on deposit-based lending may face greater scrutiny from stakeholders, prompting them to enhance transparency and ESG-related disclosures to maintain public confidence and regulatory compliance.

Conversely, TLTA exhibits a negative and statistically significant relationship with SDS (coefficient = -0.0903, p-value = 0.011), supporting H2. This finding indicates that banks allocating a higher proportion of their total assets to loans tend to have lower social disclosure scores. One possible interpretation is that these institutions may prioritize financial performance over sustainability initiatives, potentially reducing their commitment to voluntary ESG disclosures.

Regarding control variables, market capitalization (MC) and firm value (TQ) do not significantly influence SDS, as indicated by their high p-values (0.497 and 0.781, respectively). However, the year variable is highly significant, indicating a consistent

upward trend in social disclosure scores over time. This trend may reflect increasing regulatory pressures and stakeholder expectations for transparency in banking operations.

Discussion

The findings of this study underscore a fundamental dilemma in banking: the trade-off between liquidity management and sustainability commitments. In emerging Asia-Pacific economies, where banking institutions play a crucial role in economic development, this issue is particularly pronounced. The results reveal a contrasting relationship between liquidity measures and sustainability disclosures: banks with higher Total Loans to Total Deposits (TLTD) ratios exhibit stronger Social Disclosure Scores (SDS) due to heightened regulatory scrutiny, while banks with higher Total Loans to Total Assets (TLTA) ratios demonstrate weaker sustainability disclosures, as financial performance takes precedence over ESG commitments. This contrast highlights the tension between financial imperatives and sustainability objectives, particularly in economies where regulatory frameworks and market expectations are still evolving.

From the perspective of Legitimacy Theory (Suchman, 1995), the positive relationship between TLTD and SDS suggests that regulatory oversight serves as a key driver of sustainability disclosures. Banks with high TLTD ratios face heightened regulatory scrutiny due to their significant reliance on deposits to fund lending activities, prompting them to enhance ESG disclosures to maintain legitimacy and mitigate perceived risks. Abeysekera et al. (2021) argue that financial institutions under regulatory pressure often adopt sustainability reporting as a strategic tool to uphold legitimacy in the market. Furthermore, in the Asia-Pacific region, where financial stability remains a core concern, regulators impose stricter disclosure requirements to ensure responsible risk management (Eng et al., 2022). This regulatory-driven disclosure aligns with Legitimacy Theory, which suggests that organizations engage in sustainability reporting to conform to societal norms and regulatory expectations, thereby maintaining public trust and credibility.

Additionally, the positive association between TLTD and SDS aligns with Stakeholder Theory (Freeman, 1984), which posits that firms disclose sustainability information to address the expectations

of key stakeholders, including regulators, investors, and depositors (Freeman, 1984). In emerging markets, where public confidence in financial institutions is often fragile, banks may leverage sustainability disclosures as a means of enhancing reputational capital and attracting responsible investors. Mahmood et al., (2021) highlight that firms engaging in ESG initiatives align better with stakeholder expectations, improving their market position. Consequently, banks with higher TLTD ratios may view ESG disclosures as both a compliance mechanism and a strategy to strengthen stakeholder trust, reduce reputational risks, and maintain competitive advantages.

Conversely, the negative relationship between TLTA and SDS reflects the classic Agency Theory dilemma, where management prioritizes financial performance over broader societal responsibilities (Jensen & Meckling, 1976). A high TLTA ratio indicates a greater reliance on lending activities as the primary revenue driver, which may lead banks to prioritize profitability over ESG commitments. Dong et al. (2022) argue that institutions focusing on short-term financial performance often reduce the comprehensiveness of their ESG reporting, as their primary goal is maximizing asset returns. This phenomenon is particularly relevant in the Asia-Pacific region, where banks in high-growth economies allocate resources toward credit expansion rather than sustainability initiatives.

Empirical evidence supports this claim, as Anantadjaya et al. (2024) demonstrate that Indonesian banks prioritize financial returns over ESG commitments, a trend observed across emerging banking sectors in the region. This suggests that in liquidity-constrained environments, sustainability initiatives may be deprioritized due to competing financial pressures. Similarly, Patel et al. (2024) argue that banks focused on short-term profitability may overlook the long-term benefits associated with sustainable finance, such as green lending and responsible investment portfolios. This further reinforces the idea that in markets where financial institutions are expected to drive economic growth, ESG priorities often remain secondary to financial stability and shareholder returns, reflecting the agency conflict between short-term financial incentives and long-term sustainability goals.

Taken together, these findings reveal a critical dilemma for banks operating in emerging Asia-Pacific economies. While regulatory scrutiny encourages banks with high TLTD ratios to enhance sustainability disclosures (Legitimacy Theory), those with high TLTA ratios tend to prioritize financial performance

over ESG commitments due to agency conflicts (Agency Theory). However, to ensure long-term sustainability, banks must also address stakeholder expectations (Stakeholder Theory) by integrating ESG principles into their financial strategies. This trade-off underscores the need for policymakers to develop regulatory frameworks that not only enforce sustainability disclosures among high-risk banks but also incentivize asset-heavy institutions to embed ESG principles into their core financial practices. Without such measures, the banking sector risks perpetuating a systemic imbalance where sustainability remains an afterthought in the pursuit of liquidity and profitability.

Limitasi dan Future Research

This study provides a significant theoretical contribution by revisiting the role of lending structures in shaping ESG disclosure behaviors in emerging markets. It extends the literature on financial risk exposure and voluntary transparency initiatives, demonstrating that TLTD enhances sustainability disclosures due to regulatory scrutiny, while TLTA negatively impacts ESG reporting as banks prioritize financial performance. From a practical perspective, regulators should ensure that banks with high TLTA ratios remain committed to social responsibility initiatives, while financial institutions should integrate ESG disclosures into risk management frameworks. Moreover, investors can use TLTD as an indicator of sustainability engagement. However, the study is limited by its focus on Emerging Asia-Pacific, affecting generalizability, and unobserved factors like political stability may influence findings. Future research should explore corporate governance, conduct comparative studies with developed markets, and incorporate additional financial and non-financial performance indicators to enhance robustness.

References

- Abeysekera, I., Li, F., & Lu, Y. 2021. Financial disclosure quality and sustainability disclosure quality. A case in China. (G. Romano, Ed.) *PLOS ONE*, 16(5): e0250884.
- Anantadjayaa, S. H. D., Djuliahdie, R. R., Nirmala, T., Hartauer, A., Hartauer, C., et al. 2024. Do CAMEL and Sustainability Influences a Bank Performance? *Finance: Theory and Practice*, 28(1): 204–216.
- Ardiana, P. A. 2019. Stakeholder Engagement in Sustainability Reporting: Evidence of Reputation Risk Management in Large Australian Companies. *Australian Accounting Review*, 29(4): 726–

747.

Aureli, S., Del Baldo, M., Lombardi, R., & Nappo, F. 2020. Nonfinancial reporting regulation and challenges in sustainability disclosure and corporate governance practices. *Business Strategy and the Environment*, 29(6): 2392–2403.

Aureli, S., Medei, R., Supino, E., & Travaglini, C. 2016. Sustainability Disclosure after a Crisis. *International Journal of Social Ecology and Sustainable Development*, 7(1): 35–49.

Bani-Khalid, T. 2019. Examining the quantity and quality of online sustainability disclosure within the Jordanian industrial sector: a test of GRI guidelines. *Problems and Perspectives in Management*, 17(4): 141–152.

Carmo, C., & Miguéis, M. 2022. Voluntary Sustainability Disclosures in Non-Listed Companies: An Exploratory Study on Motives and Practices. *Sustainability*, 14(12): 7365.

Chagas, E. J. M. das, Albuquerque, J. de L., Maia Filho, L. F. A., & Ceolin, A. C. 2022. Sustainable development, disclosure to stakeholders and the Sustainable Development Goals: Evidence from Brazilian banks' non-financial reports. *Sustainable Development*, 30(6): 1975–1986.

Corazza, L., Zhang, J., Arachchilage, D. K., & Scagnelli, S. D. 2022. Blockchain and Sustainability Disclosure: A Scenario-Based Application for Supply Chains. *Sustainability*, 15(1): 571.

Dagilienė, L., & Nedzinskienė, R. 2018. An institutional theory perspective on non-financial reporting. *Journal of Financial Reporting and Accounting*, 16(4): 490–521.

Dong, S., Xu, L., & McIver, R. 2022. Sustainability Reporting Quality and the Financial Sector: Evidence From China. *Meditari Accountancy Research*, 31(5): 1190–1214.

Dong, Y., Liang, C., & Wanyin, Z. 2023. Board diversity and firm performance: impact of ESG activities in China. *Economic Research-Ekonomika Istrazivanja*, 36(1): 1592–1609.

Ellili, N. O. D. 2022. Impact of ESG Disclosure and Financial Reporting Quality on Investment Efficiency. *Corporate Governance*, 22(5): 1094–1111.

Ellili, N. O. D., & Nobanee, H. 2023. Impact of economic, environmental, and corporate social responsibility reporting on financial performance of UAE banks. *Environment, Development and Sustainability*, 25(5): 3967–3983.

Eng, L. L., Fikru, M., & Vichitsarawong, T. 2022. Comparing the informativeness of sustainability disclosures versus ESG disclosure ratings. *Sustainability Accounting, Management and Policy Journal*, 13(2): 494–518.

Erben Yavuz, A., Kocaman, B. E., Doğan, M., Hazar, A., Babuşcu, Ş., et al. 2024. The Impact of Corporate Governance on Sustainability Disclosures: A Comparison from the Perspective of Financial and Non-Financial Firms. *Sustainability*, 16(19): 8400.

Erin, O. A., & Ackers, B. 2024. Corporate board, assurance and sustainability reporting practices: a focus on selected African countries. *Journal of Accounting & Organizational Change*, 20(6): 85–118.

Freeman, R. E. 1984. Strategic Management: A Stakeholder Approach. Boston: Pitman. Latest edition Strategic Management: A Stakeholder Approach Source: Stakeholder Theory-Edward Freeman. *Journal of Econometrics*, 87(1): 115–143.

Gholami, A., Sands, J., & Shams, S. 2023. Corporates' sustainability disclosures impact on cost of capital and idiosyncratic risk. *Meditari Accountancy Research*, 31(4): 861–886.

Gurol, B., & Lagasio, V. 2023. Women board members' impact on ESG disclosure with environment and social dimensions: evidence from the European banking sector. *Social Responsibility Journal*, 19(1): 211–228.

Helfaya, A., & Moussa, T. 2017. Do Board's Corporate Social Responsibility Strategy and Orientation Influence Environmental Sustainability Disclosure? UK Evidence. *Business Strategy and the Environment*, 26(8): 1061–1077.

Hu, M., & Loh, L. 2018. Board Governance and Sustainability Disclosure: A Cross-Sectional Study of Singapore-Listed Companies. *Sustainability*, 10(7): 2578.

Hummel, K., & Schlick, C. 2016. The relationship between sustainability performance and sustainability disclosure – Reconciling voluntary disclosure theory and legitimacy theory. *Journal of Accounting and Public Policy*, 35(5): 455–476.

Jaiswal, R., Gupta, S., & Tiwari, A. K. 2024. Decoding mood of the Twitverse on ESG investing: opinion mining and key themes using machine learning. *Management Research Review*, 47(8): 1221–1252.

Jensen, M. C., & Meckling, W. H. 1976. Theory of The Firm: Managerial Behavior, Agency Cost and Ownership Structure. *Journal of Financial Economics*, 3: 305–360.

Khatib, S. F. A. 2024. Corrupt practice and sustainability reporting: Lifecycle perspective. *Business Strategy & Development*, 7(2). <https://doi.org/10.1002/bsd2.396>.

Ko, Y., Subramaniam, R., & Devi, S. 2024. Capital market effects of corporate transparency and sustainability: evidence from an emerging economy. *Journal of Asia Business Studies*, 18(3): 688–711.

Kouaib, A. 2022. Corporate Sustainability Disclosure and Investment Efficiency: The Saudi Arabian Context. *Sustainability*, 14(21): 13984.

Kumar, K., Kumari, R., Nandy, M., Sarim, M., & Kumar, R. 2022. Do ownership structures and governance attributes matter for corporate sustainability reporting? An examination in the Indian context. *Management of Environmental Quality: An International Journal*, 33(5): 1077–1096.

Mahmood, F., Qadeer, F., Saleem, M., Han, H., & Ariza-Montes, A. 2021. Corporate Social Responsibility and Firms' Financial Performance: A Multi-Level Serial Analysis Underpinning Social Identity Theory. *Economic Research-Ekonomika Istrazivanja*, 34(1): 2447–2468.

Malik, N., & Kashiramka, S. 2025. Unlocking Dividend Potential Through the Power of Sustainable Disclosures: Moderating Role of Financial Constraints. *Business Strategy and the Environment*. <https://doi.org/10.1002/bse.4139>.

Martínez-Ferrero, J., & García-Sánchez, I. 2017. Sustainability assurance and cost of capital: Does assurance impact on credibility of corporate social responsibility information? *Business Ethics: A European Review*, 26(3): 223–239.

Michelon, G. 2011. Sustainability Disclosure and Reputation: A Comparative Study. *Corporate Reputation Review*, 14(2): 79–96.

- Moufty, S., Al-Najjar, B., & Ibrahim, A. 2024. Communications of sustainability practices in the banking sector: Evidence from cross-country analysis. *International Journal of Finance & Economics*, 29(1): 135–161.
- Nicolò, G., Zanellato, G., Esposito, B., & Tiron-Tudor, A. 2024. Cultural dimensions and sustainability disclosure in the banking sector: Insights from a qualitative comparative analysis approach. *Business Strategy and the Environment*, 33(8): 8086–8101.
- Nwobu, O. A., Ngwakwe, C., Owolabi, A., & Adeyemo, K. 2021. AN ASSESSMENT OF SUSTAINABILITY DISCLOSURES IN OIL AND GAS LISTED COMPANIES IN NIGERIA. *International Journal of Energy Economics and Policy*, 11(4): 352–361.
- Othman, R., Nath, N., & Laswad, F. 2017. Sustainability Reporting by New Zealand's Local Governments. *Australian Accounting Review*, 27(3): 315–328.
- Paolone, F., Pozzoli, M., Chhabra, M., & Di Vaio, A. 2024. Cultural and gender diversity for ESG performance towards knowledge sharing: empirical evidence from European banks. *Journal of Knowledge Management*, 28(11): 106–131.
- Patel, S., Desai, R., & Soni, K. 2024. Unveiling the drivers of green loan disclosures: a study of financial and governance determinants. *Journal of Financial Regulation and Compliance*, 32(5): 699–725.
- Rathnayaka Mudiyansele, N. C. S. 2018. Board involvement in corporate sustainability reporting: evidence from Sri Lanka. *Corporate Governance: The International Journal of Business in Society*, 18(6): 1042–1056.
- Sannino, G., Lucchese, M., Zamponi, G., & Lombardi, R. 2020. Cultural dimensions, Global Reporting Initiatives commitment, and corporate social responsibility issues: New evidence from Organisation for Economic Co-operation and Development banks. *Corporate Social Responsibility and Environmental Management*, 27(4): 1653–1663.
- Suchman, M. C. 1995. Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3): 571–610.
- Taliento, M., Favino, C., & Netti, A. 2019. Impact of Environmental, Social, and Governance Information on Economic Performance: Evidence of a Corporate 'Sustainability Advantage' from Europe. *Sustainability*, 11(6): 1738.
- Thun, T. W., & Zülch, H. 2023. The effect of chief sustainability officers on sustainability reporting—A management perspective. *Business Strategy and the Environment*, 32(4): 2093–2110.
- Touboul, S., & Kozan, A. 2020. "You Cannot Hide Forever Luke": Understanding the Strategic Use of Sustainability Disclosure in the Short and Long Term. *M@n@gement*, 19–37.
- Vishnu Nampoothiri, M., Entrop, O., & Annamalai, T. R. 2024. Effect of mandatory sustainability performance disclosures on firm value: Evidence from listed European firms. *Corporate Social Responsibility and Environmental Management*, 31(6): 5220–5235.
- Zarefar, A., Agustia, D., & Soewarno, N. 2022. Bridging the Gap between Sustainability Disclosure and Firm Performance in Indonesian Firms: The Moderating Effect of the Family Firm. *Sustainability*, 14(19): 12022.
- Zhu, N., Osei, A., & Agyemang, A. O. 2024. Do board attributes influence environmental sustainability disclosure in manufacturing firms? Evidence from sub-Saharan Africa. *Corporate Social Responsibility and Environmental Management*, 31(5): 4759–4771.