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Sustainability-Linked Disclosure Quality, ESG Transparency, and Sustainable Finance Governance in the Indonesian Banking Sector

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Abstract: Sustainability-linked loans (SLLs) are performance-based financing instruments that link loan characteristics to borrowers' achievement of predefined sustainability performance targets. This study examines SLL disclosure quality, ESG transparency, and sustainable finance governance in the Indonesian banking sector. Using qualitative content analysis and a structured disclosure quality index, the study analyzes 2024 annual reports and official publications of Bank Mandiri, Bank Central Asia, and Bank SMBC Indonesia. The findings show that all three banks have incorporated SLLs or SLL-related instruments into sustainable finance narratives, but their disclosures remain largely aggregated and narrative. Bank SMBC Indonesia provides the clearest conceptual positioning by linking SLLs to transition financing, Bank Mandiri connects SLLs to broader sustainable financing priorities, and Bank BCA reports sustainable finance more conservatively without presenting SLLs as a stand-alone instrument. The disclosure quality index scores show Bank SMBC Indonesia (6/16), Bank Mandiri (5/16), and Bank BCA (3/16), indicating low SLL-specific transparency across all three banks. Quantitative KPIs, baselines, SPT calibration, margin adjustment mechanisms, and external verification remain insufficiently disclosed. Therefore, ROA, ROE, and NIM are treated only as contextual indicators, not as evidence of SLL financial effects. The study contributes by reframing early SLL adoption in Indonesia as a governance and disclosure quality issue rather than as a direct profitability question.

Keyword: Sustainability-Linked Loan, ESG Disclosure, Sustainable Finance Governance, Disclosure Quality, Indonesian Banking.

INTRODUCTION

Sustainability has become a strategic agenda in the banking sector because banks are expected to allocate capital not only to profitable activities but also to activities that support environmental protection, social inclusion, responsible governance, and long-term economic resilience. In Indonesia, this agenda is reinforced by sustainable finance policies issued by the Financial Services Authority (Otoritas Jasa Keuangan/OJK), including the sustainable finance roadmap (Otoritas Jasa Keuangan, 2021) and POJK No. 51/POJK.03/2017 (Otoritas Jasa Keuangan, 2017). These regulatory developments encourage banks to integrate environmental, social, and governance (ESG) considerations into products, risk management, credit allocation, and public disclosure.

One important innovation within sustainable finance is sustainability-linked loan (SLL). Unlike green loans, which restrict the use of proceeds to eligible green projects, SLLs may be used for general corporate purposes while linking loan characteristics to the borrower's achievement of predetermined sustainability performance. The core mechanism involves key performance indicators (KPIs), sustainability performance targets (SPTs), reporting obligations, loan characteristic adjustments, and verification. When these components are designed credibly, SLLs may create incentives for borrowers to improve sustainability performance while enabling banks to strengthen their sustainable finance portfolios.

However, the rapid growth of sustainability-linked finance has raised concerns about credibility. International studies show that the existence of SLL labels does not automatically guarantee strong sustainability incentives. Auzepy, Bannier, and Martin (2023) find that SLLs do not always rely on KPIs that effectively incentivize sustainability performance. Aleszczyk, Loumioti, and Serafeim (2022) also emphasize that KPI materiality and pricing adjustment mechanisms are central to the credibility of SLL contracts. Therefore, SLL quality cannot be assessed merely from the presence of sustainable finance narratives; it must be assessed from the specificity, measurability, ambition, financial relevance, and verification of the disclosed targets.

This issue is particularly important in emerging markets such as Indonesia, where sustainable finance regulation continues to evolve and banks are still developing reporting practices for newer sustainable finance instruments. Bank Mandiri, Bank Central Asia (BCA), and Bank SMBC Indonesia disclose sustainable financing activities that include or relate to SLLs, transition financing, or ESG-linked financing. Nevertheless, the extent to which these public disclosures provide technical information about KPIs, SPTs, baselines, incentive-penalty mechanisms, and verification remain unclear. Public reports often integrate SLL information into broader sustainable finance narratives, making it difficult for stakeholders to evaluate whether SLLs operate as substantive performance-based instruments or primarily as symbolic ESG signals.

The unresolved academic debate addressed in this study concerns the gap between sustainable finance adoption and disclosure credibility. Prior ESG-finance studies show that ESG disclosure may affect financing costs, investor confidence, and risk perception (Cheng et al., 2014; Eliwa et al., 2021; Friede et al., 2015; Goss & Roberts, 2011). However, SLLs require a more specific analytical lens because they are not only disclosure instruments but also contract-based financial products. Their credibility depends on the connection between borrower-level sustainability targets and loan characteristics. This creates a research gap: while Indonesian banks increasingly report sustainable finance initiatives, little is known about whether their public SLL disclosures provide sufficient information to assess the credibility and governance quality of SLL implementation.

Accordingly, this study reframes the analysis from a broad examination of SLL strategy and financial performance toward a more focused assessment of SLL disclosure quality, ESG transparency, and sustainable finance governance. Financial indicators are included only as contextual banking indicators because public reports do not disclose SLL-specific profitability, portfolio yield, borrower-level outcomes, or contract-level financial consequences. This positioning avoids overstating the ability of public documents to demonstrate causal financial effects.

Conceptually, this study draws on legitimacy, signaling, stakeholder, institutional, and agency perspectives to interpret SLL disclosure quality. Legitimacy theory explains why banks use sustainable finance disclosure to demonstrate alignment with societal and regulatory expectations (Suchman, 1995), while signaling theory emphasizes that credible ESG claims require observable, specific, and verifiable information (Spence, 1973). Stakeholder theory highlights the need for decision-useful information for regulators, investors, borrowers, customers, and the public (Freeman, 1984). Institutional theory explains why banks may adopt similar sustainability language under regulatory and market pressures while differing in technical transparency (DiMaggio & Powell, 1983; Scott, 2014), and agency theory explains why monitoring and verification are needed to reduce information asymmetry among banks, borrowers, investors, and stakeholders (Eisenhardt, 1989; Jensen & Meckling, 1976).

This study is guided by three research questions: (1) how do selected Indonesian banks disclose SLLs or SLL-related sustainable finance instruments in their 2024 public reports; (2) to what extent do these disclosures meet core credibility attributes, including KPI specificity, SPT calibration, incentive mechanisms, monitoring, and verification; and (3) what governance and ESG transparency implications arise from the observed disclosure gaps? The contribution of this study lies in developing a structured disclosure quality assessment for early-stage SLL implementation in the Indonesian banking sector and in explaining why SLL adoption should be evaluated as a disclosure governance issue rather than merely as a profitability issue.

METHOD

This study uses a descriptive qualitative approach with directed content analysis. This method is appropriate because the objective is not to test statistical causality, but to examine how SLLs are presented, structured, and justified in publicly available banking documents. Content analysis enables the identification of patterns of disclosure across annual reports, sustainability-related sections, and official publications (Hsieh & Shannon, 2005; Krippendorff, 2018).

The objects of this study are Bank Mandiri, Bank Central Asia, and Bank SMBC Indonesia. The sample was selected purposively based on three criteria: the bank published a 2024 annual report that is publicly accessible; the bank disclosed sustainable finance activities; and the bank provided information related to SLLs, transition financing, ESG-linked financing, or broader sustainable financing instruments. The three-bank sample is not intended to represent all Indonesian banks statistically. Instead, it provides an exploratory comparison of early SLL-related disclosure among large and relevant banking institutions in Indonesia.

The data sources consist of 2024 annual reports, sustainability-related disclosures embedded in annual reports or stand-alone reports where available, official bank publications, and relevant sustainable finance policy documents (Bank Central Asia, 2024; Bank Mandiri, 2024; Bank SMBC Indonesia Tbk., 2024). The units of analysis are sentences, paragraphs, tables, and disclosure themes related to SLL strategy, KPI disclosure, SPT disclosure, financial indicators, ESG integration, verification, implementation challenges, and sustainable finance governance.

To address validity and transparency concerns in qualitative content analysis, this study uses a structured coding protocol. The analysis followed five stages. First, relevant report sections were identified using keywords such as sustainability-linked loan, sustainable finance, transition finance, ESG, KPI, SPT, verification, ROA, ROE, NIM, green finance, and sustainable portfolio. Second, the extracted text was coded using a predefined codebook derived from the Sustainability-Linked Loan Principles (Loan Market Association, Asia

Pacific Loan Market Association, & Loan Syndications and Trading Association, 2023) and ESG disclosure literature. Third, the coding results were organized into disclosure categories. Fourth, each bank was assessed using a disclosure quality index. Fifth, the results were interpreted using the disclosure quality framework and relevant disclosure theories.

Inter-coder reliability was addressed through codebook calibration, pilot coding, and consensus checking. Selected disclosure segments were reviewed against the scoring criteria before full coding was finalized. Any differences in classification were discussed by the authors until agreement was reached, ensuring consistent interpretation of whether each item represented no disclosure, partial narrative disclosure, or specific and decision-useful disclosure. Because the study uses a qualitative directed content analysis design, reliability is reported as procedural consistency through calibrated coding and author consensus rather than as a statistical inter-coder coefficient.

The disclosure quality index is used to avoid purely descriptive findings. Each disclosure item is scored as 0, 1, or 2. A score of 0 indicates that the item is not disclosed or is only implicit. A score of 1 indicates partial or narrative disclosure without sufficient quantitative detail. A score of 2 indicates specific, measurable, and decision-useful disclosure. The index does not measure actual SLL performance because contract-level data and borrower-level sustainability outcomes are not publicly available. Instead, it measures the quality of public disclosure as an indicator of transparency and governance credibility.

Because this study relies entirely on public disclosure, the findings are subject to important limitations. The analysis cannot verify confidential loan contracts, internal KPI calculations, borrower-level sustainability data, or the actual application of pricing adjustments. Therefore, the study evaluates what banks disclose to stakeholders, not the full internal implementation of SLL contracts. This limitation is also analytically important because SLL credibility depends partly on the extent to which stakeholders can observe and evaluate disclosed information.

Table 1. Operational Definition, Indicators, and Data Sources

Aspect	Operational definition	Main indicators	Data sources
SLL identification	Whether the bank discloses SLLs or SLL-related financing as a distinguishable instrument.	SLL terminology, transition financing, sustainable financing classification, portfolio separation.	Annual reports and official bank publications.
KPI disclosure	Disclosure of borrower sustainability indicators linked to loan characteristics.	KPI specificity, materiality, measurement unit, sector relevance.	Annual reports, sustainable finance disclosures, SLL principles.
SPT disclosure	Disclosure of sustainability performance targets attached to SLLs.	Baseline, target year, ambition level, calibration method, borrower-level target.	Annual reports and ESG disclosure sections.
Loan characteristic adjustment	Disclosure of financial consequences linked to target achievement or failure.	Margin adjustment, incentive-penalty mechanism, covenant or pricing link.	Annual reports and official publications.
Reporting and verification	Disclosure of monitoring, reporting frequency, and assurance mechanisms.	Monitoring procedure, external review, independent verification, accountability process.	Annual reports and sustainable finance disclosures.
Contextual financial indicators	General banking performance indicators used only as context.	ROA, ROE, NIM, portfolio quality, risk mitigation narratives.	Annual reports and financial performance tables.

Source: Authors' framework based on SLL principles and sustainable finance literature.

Table 2. Disclosure Quality Index Scoring Criteria

Disclosure item	Score 0	Score 1	Score 2
SLL instrument identification	No explicit or separate SLL-related information.	SLL mentioned but merged with general sustainable finance.	SLL clearly identified as a distinct instrument or strategy.
KPI specificity and materiality	No KPI information.	Narrative KPI information without quantified measure.	Specific KPI with measurement unit and materiality explanation.
SPT calibration	No SPT information.	Target described generally without baseline or target year.	Baseline, target year, ambition, and calibration method disclosed.
Loan characteristic adjustment	No incentive or penalty disclosure.	General reference to performance linkage.	Margin adjustment or financial consequence disclosed.
Reporting and monitoring	No monitoring information.	General reporting or ESG monitoring narrative.	Specific reporting frequency and monitoring process disclosed.
External verification	No verification information.	General assurance or review narrative.	Independent SLL-specific verification disclosed.
Portfolio separation	SLLs not separated from other financing.	Partial separation or qualitative explanation.	Quantitative SLL portfolio disclosed separately.
Governance accountability	No governance information.	General ESG governance narrative.	Specific committee, control, or accountability process for SLLs disclosed.

Source: Authors' framework based on the Sustainability-Linked Loan Principles and ESG disclosure literature.

RESULT AND DISCUSSION

Characteristics of Sustainability-Linked Loan Disclosure in Indonesian Banking

The findings show that all three banks have incorporated sustainable finance narratives into their public reports, but the level of SLL-specific disclosure differs substantially. Bank SMBC Indonesia provides the clearest conceptual explanation by positioning SLLs within transition financing and borrower ESG performance improvement. Bank Mandiri links SLLs and related sustainable financing to broader ESG strategy, national development priorities, and sustainable portfolio development. Bank BCA discloses sustainable finance more conservatively and in aggregated form, with limited separation between SLLs and other sustainable finance instruments.

This pattern indicates that SLL disclosure in Indonesia is still dominated by general ESG and sustainable finance language. The reports show that banks are increasingly aware of sustainable finance as a strategic agenda, but the technical features that distinguish SLLs from other financing instruments are not consistently disclosed. This distinction is important because SLLs are not merely green-labelled loans. They require measurable performance targets and contractual consequences that connect financing terms to borrower-level sustainability outcomes.

Table 3. Characteristics of SLL-Related Disclosure in the Indonesian Banking Sector

Main indicator	Bank Mandiri	Bank SMBC Indonesia	Bank BCA
SLL identification	SLLs or SLL-related instruments are connected to sustainable financing portfolios and ESG priorities but not always separated from other instruments.	SLLs are more explicitly connected to transition financing and borrower ESG performance improvement.	SLL-specific information is limited and generally embedded within broader sustainable financing disclosure.
KPI disclosure	Borrower KPIs are discussed in general terms without detailed quantitative indicators or borrower-level measurement units.	Borrower sustainability KPIs are acknowledged conceptually as part of SLL design, but numerical details are not disclosed.	Specific borrower KPIs are not separately disclosed.

Main indicator	Bank Mandiri	Bank SMBC Indonesia	Bank BCA
SPT disclosure	SPTs are implicitly connected to sustainability priorities, but baselines, target years, and calibration methods are not presented separately for SLLs.	SPTs are conceptually connected to borrower ESG improvement, but public disclosure does not provide baselines, target years, or financial consequences.	SPTs are not explicitly disclosed as stand-alone sustainability performance targets.
ESG integration	SLL-related disclosure is linked to ESG framework, sustainable financing, and national development agenda.	SLLs are positioned as part of ESG strategy and transition financing.	ESG integration is presented through governance, prudence, and reputation-oriented sustainable finance narratives.
Financing approach	Portfolio-based approach combining sustainable loans, green loans, social loans, and SLL-related instruments.	Performance-based transition financing approach focused on borrower ESG improvement.	Aggregated and conservative approach without detailed separation of SLL instruments.

Source: Authors' analysis based on banks' 2024 annual reports and official publications.

Table 3 shows that SLL-related information is available across the sample, but it is not yet sufficiently technical. Bank SMBC Indonesia provides the most explicit conceptual positioning, Bank Mandiri emphasizes a broader sustainable financing portfolio, and Bank BCA presents SLL-related information more implicitly within general sustainable finance disclosure.

Disclosure Quality Index Results

The disclosure quality index provides a more systematic assessment of SLL transparency. The scoring results show that none of the three banks reaches a high level of SLL-specific public disclosure. Bank SMBC Indonesia obtains the highest score because it provides a clearer conceptual link between SLLs, transition financing, and borrower ESG improvement. Bank Mandiri follows a broader portfolio-based sustainable finance approach. Bank BCA receives the lowest score because SLL information is not clearly separated from general sustainable finance disclosure.

Table 4. SLL Disclosure Quality Index Results

Disclosure item	Bank Mandiri	Bank SMBC Indonesia	Bank BCA
SLL instrument identification	1	2	1
KPI specificity and materiality	1	1	0
SPT calibration	0	0	0
Loan characteristic adjustment	0	0	0
Reporting and monitoring	1	1	1
External verification	0	0	0
Portfolio separation	1	1	0
Governance accountability	1	1	1
Total score	**5/16**	**6/16**	**3/16**

Source: Authors' assessment based on 2024 public disclosures. Scoring: 0 = not disclosed/implicit, 1 = partial narrative disclosure, 2 = specific and decision-useful disclosure.

The scores indicate that the central disclosure gap concerns the core contractual elements of SLLs. All three banks receive low scores for SPT calibration, loan characteristic adjustment, and external verification. These are the components most directly related to SLL credibility. Without disclosed baselines and target years, stakeholders cannot evaluate whether the targets are ambitious. Without disclosure of margin adjustment or financial consequences, stakeholders cannot assess whether the loan creates meaningful incentives.

Without independent verification, stakeholders cannot evaluate the reliability of borrower performance claims.

The index also reveals an important distinction between ESG integration and SLL transparency. A bank may have extensive ESG governance narratives but still provide limited information about SLL-specific mechanisms. This distinction strengthens the academic contribution of the study because it shows that sustainable finance disclosure quality cannot be inferred from general ESG disclosure volume. SLLs require a different level of contract-linked transparency.

Contextual Financial Indicators and the Limits of Financial Performance Claims

The 2024 annual reports provide general financial indicators such as return on assets (ROA), return on equity (ROE), and net interest margin (NIM). These indicators are useful for describing the overall financial position of each bank, but they cannot be used to establish the financial effect of SLLs. Public reports do not provide SLL-specific profitability, risk-adjusted return, portfolio yield, borrower-level performance, or contract-level margin adjustment data.

For this reason, this study treats financial indicators as contextual information only. This adjustment directly addresses the methodological limitation that a qualitative public-disclosure study cannot legitimately claim a causal relationship between SLLs and profitability. Instead, the financial data helps show that SLL adoption is embedded within banks that differ in scale, profitability, and strategic positioning.

Table 5. Contextual Financial Indicators

Bank	ROA (%)	ROE (%)	NIM (%)	Interpretation
Bank Mandiri	3.59	24.19	4.93	Strong overall profitability provides context for sustainable financing expansion, but SLL-specific financial contribution is not separately disclosed.
Bank BCA	±3.6	±23.0	±5.7	Strong profitability and conservative disclosure suggest that SLLs are positioned within prudential sustainable finance rather than as a separately measured profitability driver.
Bank SMBC Indonesia	1.8	6.8	7.1	SLLs are conceptually linked to transition financing, but direct financial benefits are not observable from public disclosures.

Source: Authors' analysis based on banks' 2024 annual reports and official publications.

Table 5 supports a cautious interpretation. The available data do not show whether SLLs improve, weaken, or have no effect on profitability. Therefore, the more defensible conclusion is that SLLs currently function as strategic sustainable finance instruments whose financial value may emerge indirectly through portfolio quality, risk mitigation, stakeholder trust, and reputation over a longer horizon.

Challenges of Sustainability-Linked Loan Implementation and Disclosure

The main challenge across the three banks is the disclosure gap between SLL adoption and the technical components required for credible SLL design. SLLs require material KPIs, ambitious but realistic SPTs, transparent reporting, and verification. However, these components are not consistently disclosed in public reports. The issue is not the absence of sustainable finance narratives; rather, it is the limited availability of measurable and verifiable SLL information.

The findings also suggest several possible institutional explanations for disclosure gaps. First, regulatory guidance may not yet require banks to disclose SLL-specific contractual components separately from general sustainable finance portfolios. Second, banks may treat borrower-level KPIs, pricing adjustments, and contract terms as confidential commercial information. Third, sustainable finance reporting systems may still be developing, especially for products that combine credit, ESG risk assessment, and borrower transition pathways. Fourth, banks may prefer aggregated disclosure to manage reputational risk when SLL implementation is still at an early stage. These explanations are consistent with institutional theory because organizations may respond to external ESG pressures while adapting disclosure practices to regulatory ambiguity, market competition, and internal reporting capacity.

Table 6. Challenges of Sustainability-Linked Loan Implementation

Challenge aspect	Bank Mandiri	Bank SMBC Indonesia	Bank BCA
Selecting material and well-defined KPIs	KPIs are goal-oriented but not presented with numerical indicators, baselines, or sector-specific measurement units.	KPIs are conceptually linked to sector materiality and ESG relevance but remain largely narrative.	KPI information is integrated into general sustainable finance disclosure and is not specific to SLLs.
Calibrating ambitious and realistic SPTs	SLL targets are not disclosed separately and are integrated into overall ESG or sustainable finance targets.	SPTs are described as borrower ESG improvement targets, but timelines, baselines, and financial consequences are not shown.	SPTs are not explicitly disclosed; sustainable financing achievements are presented in aggregate.
Verification and accountability	Public reports provide limited information on how SLL achievement is monitored and verified at borrower level.	The conceptual design is stronger, but the public report still lacks detailed verification protocols and penalty mechanisms.	Verification information for SLL-specific performance is limited because SLL disclosure is not separated from general ESG disclosure.
Reputational and greenwashing risk	General disclosure may create credibility concerns if SLL claims are not supported by measurable targets.	Risk is lower because the transition financing concept is clearer, but it remains present due to limited quantitative disclosure.	Risk is relatively higher because SLL information is implicit and not technically detailed.

Source: Authors' analysis based on banks' 2024 annual reports and official publications.

Table 6 confirms that the problem is not the absence of sustainable finance narratives, but the limited availability of measurable and verifiable SLL information. This gap may reduce stakeholder confidence because SLL credibility depends on whether contractual targets are material to the borrower's business and whether non-achievement has financial consequences.

Strategies for Strengthening Sustainability-Linked Loans Governance

Despite disclosure limitations, the three banks have strategic foundations that can support stronger future SLL implementation. These foundations include integration of sustainable finance into long-term business planning, ESG risk management, transition financing, product innovation, and public reporting improvement. The strategic challenge is to move from macro-level sustainability narratives to technical reporting that allows stakeholders to trace SLL performance over time.

From a governance perspective, SLL disclosure should be separated from general sustainable finance disclosure because SLLs are performance-based instruments. Minimum decision-useful disclosure should include selected KPIs, relevance of KPIs to the borrower's sector, baseline values, target years, ambition rationale, reporting frequency, verification arrangements, and financial consequences. Such disclosure would strengthen signaling credibility, reduce information asymmetry, and make SLL portfolios more comparable across banks.

Table 7. Strategies for Strengthening Sustainability-Linked Loans

Strategic aspect	Bank Mandiri	Bank SMBC Indonesia	Bank BCA
Integration into long-term business strategy	Sustainable financing is positioned as part of long-term growth and ESG risk mitigation.	Sustainable financing supports long-term growth, environmental and social risk management, and transition readiness.	Sustainable finance is linked to prudence, stability, and long-term ESG integration.
Positioning of SLLs as transition instruments	SLLs are included within broader sustainable financing portfolios alongside other instruments.	SLLs are more explicitly positioned as transition financing instruments.	SLLs are not clearly positioned as stand-alone transition instruments.
Sustainable financing portfolio development	Portfolio approach combining sustainable, green, and social financing.	Three-pillar approach covering green financing, social financing, and transition financing.	Aggregated growth of sustainable finance portfolios.
Reporting improvement priority	Needs clearer SLL-specific KPI, SPT, and verification disclosure.	Needs stronger quantitative disclosure to support the already clear conceptual framework.	Needs explicit separation of SLLs from the general sustainable financing portfolio.
Integration into long-term business strategy	Sustainable financing is positioned as part of long-term growth and ESG risk mitigation.	Sustainable financing supports long-term growth, environmental and social risk management, and transition readiness.	Sustainable finance is linked to prudence, stability, and long-term ESG integration.

Source: Authors' analysis based on banks' 2024 annual reports and official publications.

Implications for OJK Reporting Guidance

Specific to the Financial Services Authority (OJK), the findings imply that sustainable finance regulation should be complemented by technical reporting guidance for performance-based instruments such as SLLs. OJK could require banks to classify green loans, social loans, transition finance, and SLLs separately; disclose minimum SLL attributes such as KPI definitions, measurement units, baselines, target years, calibration rationale, monitoring frequency, verification status, and aggregate portfolio exposure; and distinguish confidential borrower-level information from disclosure that can be reported at portfolio level.

OJK guidelines could also encourage banks to disclose whether loan characteristic adjustments are applied without requiring sensitive commercial pricing details. A standardized SLL reporting template, annual progress reporting, and independent review or assurance would improve comparability across banks, reduce greenwashing risk, and strengthen the implementation of POJK No. 51/POJK.03/2017 within Indonesia's evolving sustainable finance ecosystem.

Theoretical and Practical Implications

Theoretically, the findings show that SLL adoption should be understood as a governance and disclosure quality issue. Legitimacy theory explains why banks emphasize sustainable finance narratives to align with stakeholder and regulatory expectations. Signaling theory explains why technical disclosure matters: strong signals require observable, specific, and verifiable information. Institutional theory explains why banks may adopt similar ESG language while varying in technical disclosure because standards, market norms, and confidentiality practices are still developing. Agency theory explains why monitoring and verification are necessary to reduce information asymmetry between banks, borrowers, investors, regulators, and the public.

The findings also refine the relationship between ESG disclosure and financial performance. Public reports do not provide sufficient evidence to evaluate whether SLLs affect ROA, ROE, or NIM. Consequently, the value of SLLs should be interpreted more cautiously as a potential long-term risk management and strategic positioning mechanism rather than as a proven short-term profitability driver. This interpretation is consistent with ESG finance studies that associate sustainability practices with access to finance, reputation, and lower risk perception rather than immediate profitability effects.

Practically, the findings imply that banks need stronger internal governance mechanisms for KPI selection, SPT calibration, borrower monitoring, and external verification. Future annual reports can be improved by separating green loans, social loans, transition finance, and SLLs so that stakeholders can understand the specific role of SLLs in supporting sustainable transition, credit portfolio quality, and financial resilience.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

This study concludes that SLL-related instruments have begun to appear in the sustainable finance disclosures of selected Indonesian banks, but their public reporting remains dominated by narrative and aggregated information. The disclosure quality index scores show Bank SMBC Indonesia (6/16), Bank Mandiri (5/16), and Bank BCA (3/16), indicating low SLL-specific transparency across all three banks, particularly in KPI specificity, SPT calibration, loan characteristic adjustment, and external verification.

Financial indicators such as ROA, ROE, and NIM cannot be interpreted as evidence of direct SLL financial effects because public reports do not disclose SLL-specific profitability, contract-level pricing adjustments, or borrower-level performance outcomes. SLLs are therefore better understood as long-term instruments for ESG strategy, credit portfolio quality, risk mitigation, stakeholder trust, and institutional reputation.

This study contributes to the literature by reframing SLL adoption as a governance and disclosure quality issue, integrating legitimacy, signaling, institutional, and agency theories to explain why technical disclosure matters for SLL credibility. The study also provides practical implications for banks and OJK by emphasizing the need for clearer SLL classification, standardized disclosure items, monitoring mechanisms, external verification, and portfolio-level comparability.

Limitations

This study has four limitations. First, the sample includes only three banks, so the findings cannot be generalized to the entire Indonesian banking sector. Second, the analysis relies on public disclosure and does not capture internal banking documents or confidential borrower information. Third, the study cannot verify contract-level data, including actual KPI calculations, SPT achievement, pricing adjustments, or borrower-level ESG outcomes. Fourth, the analysis is cross-sectional and focuses on 2024 disclosures, so it cannot assess longitudinal changes in SLL governance and disclosure quality over time. Future studies should combine public reports with loan-level data, interviews with banks and regulators, and multi-year comparisons to evaluate the medium- and long-term financial and ESG effects of SLLs.

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