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Predictive Gap Analysis of Financial and Operational Performance of Banks: A Comparative Study of Target versus Realization in Regional Development Banks (Case Study: Bank Sumut)

Aminur Rahman Lubis[1,*], Khaira Amalia Fachrudin[2], Isfenti Sadalia[2]

[1] Doctoral Study Program in Management Science, Faculty of Economics and Business, Universitas Sumatera Utara, Medan, Indonesia,
[2] Department of Management, Faculty of Economics and Business, Universitas Sumatera Utara, Medan, Indonesia
Jl. Tri Dharma No. 9, Padang Bulan, Medan Baru District, Medan City, North Sumatra 20222, Indonesia
Email:[1,*]aminurrahman@student.usu.ac.id, [2]khaira@usu.ac.id, [3]isfenti@usu.ac.id
Correspondence Author Email: aminurrahman@student.usu.ac.id
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Abstract-This study aims to analyze the performance gap between the targets set in the Bank Business Plan (RBB) and the actual performance of the Regional Development Bank (BPD) Sumut during the 2020–2022 period, focusing on four key indicators: profitability (ROA), credit risk (NPL Nett), third-party funds (DPK), and credit distribution. The research employs a descriptive-comparative design with a quantitative approach using time-series data. The analytical technique applied is Simple Variance Analysis to measure the deviation between the target and actual realization of each indicator. Data were examined through both absolute and percentage gap ratios to evaluate the effectiveness of performance achievement and the consistency of the bank's strategic execution. The findings reveal that Bank Sumut effectively managed profitability and credit risk, as evidenced by a significant increase in ROA and a decline in NPL below the target level in 2022. The intermediation function showed strong recovery, with credit realization exceeding the target; however, third-party fund mobilization still exhibited a negative gap despite improvement in the final year of observation. These results highlight the importance of strengthening DPK strategies through digital and CASA-based innovations, maintaining prudential principles in corporate lending, and diversifying non-credit income sources to ensure long-term stability and profitability. This study provides an empirical contribution to evaluating the effectiveness of the RBB using a ratio-based gap analysis approach, which remains rarely integrated into studies of Regional Development Banks in Indonesia.

Keywords: ROA; NPL; Third-Party Funds; Credit; Simple Variance Analysis

1. INTRODUCTION

Regional Development Banks (RDBs) play a vital role as agents of regional development and catalysts for economic growth within their operational areas, with functions extending beyond conventional commercial banking activities (Siregar, 2025). Therefore, the establishment of ambitious yet realistic performance targets serves as a crucial management instrument acting as a strategic guideline, a measure of accountability, and a basis for evaluating both operational effectiveness and financial efficiency (Ahmaddien & St, 2025). Optimal performance management of RDBs is fundamental to the success of regional economic development. However, in practice, performance management often reveals significant discrepancies between targeted and realized performance outcomes, whether positive (exceeding the target) or negative (falling below the target).

These gaps indicate inconsistencies between strategic planning and operational execution, necessitating a deeper analysis to identify their root causes. Against this backdrop, the present study aims to analyze and measure the predictive performance gaps between targets and realizations for key variables at Bank Sumut, namely Return on Assets (ROA), Non-Performing Loans (NPL), Third-Party Funds (TPF), and Credit distribution. Furthermore, the study seeks to formulate managerial implications and constructive policy recommendations to enhance future performance. From a scientific standpoint, this research contributes substantively to the banking financial management literature particularly in the domains of performance management and variance analysis by developing a detailed and applicable performance gap analysis model tailored to the context of RDBs in Indonesia (Nurhasanah, 2025).

2. RESEARCH METHOD

This section details the research methodology employed to analyze the financial and operational performance of Regional Development Banks (RDBs), specifically focusing on Bank Sumut. The methodology encompasses the research design, operational definitions of variables, data collection procedures, and the analytical techniques used. This comprehensive approach is designed to ensure the rigor and replicability of the findings in assessing performance gaps.
Research Framework

This study adopts a descriptive-comparative research design with a quantitative approach to analyze the performance gaps between predetermined targets and realized outcomes at Regional Development Banks (RDBs), specifically at Bank Sumut. This research design was selected to describe bank performance quantitatively and to compare two conditions: target data and realization data (Maghfiroh, 2021) . The quantitative approach is essential, as the analyzed data comprise financial and operational ratios expressed in numerical form.

2.1 Object and Data of the Study

The study focuses on the financial and operational performance data of Bank Sumut. The data used are time-series in nature, comparing Target and Realization for four main indicators from 2020 to 2022:

a. ROA (Return on Assets) Target vs. Realization (to measure profitability).
b. NPL (Non-Performing Loans) Target vs. Realization (to measure credit risk).
c. TPF (Third-Party Funds) Target vs. Realization (to measure fund mobilization).
d. Credit Target vs. Realization (to measure loan distribution/financing).

These indicators collectively represent the dimensions of profitability, risk, and intermediation function (Ramadhan, 2023) .

2.2 Operational Definitions

a. Return on Assets (ROA): Measures the bank's ability to generate profit from its total assets. A higher ROA indicates better profitability (Gozali & Mawardi, 2025; Susilawati & Nurulrahmatiah, 2021).
b. Non-Performing Loan (NPL): Measures the percentage of bad loans (substandard, doubtful, and loss) to total loans. A lower NPL indicates better credit risk management (Putri & Willy, 2020; Ramadhan, 2023).
c. Third-Party Funds (TPF): Represents the funds collected by the bank from the public (current accounts, savings, and time deposits), reflecting the bank's funding capacity (Charakas & Putri, 2023).
d. Credit Distribution: Represents the total loans or financing disbursed by the bank, which is the primary form of the bank's intermediation function (Adnan et al., 2023; Sari et al., 2021).

Analytical Technique: Simple Variance Analysis

The study employs Simple Variance Analysis to measure the extent to which realized performance deviates from established targets—a common practice in bank performance management (Utami, 2021).

The gap (K) is calculated using the formula (Utami, 2021) ➔ K = Realization − Target

A positive gap (K > 0) generally indicates performance exceeding the target (favorable performance for indicators like ROA, TPF, or Credit), whereas a negative gap (K < 0) suggests performance below the target (unfavorable performance). However, for risk indicators such as NPL, a positive gap implies higher-than-target risk (undesirable), while a negative gap indicates better risk control.

The percentage gap ratio (%K) is computed as (Utami, 2021): %K = [(Realization − Target) / Target] × 100%

This percentage ratio provides a more precise measure of success or underperformance relative to target magnitude, facilitating a deeper interpretation of the significance of observed performance gaps.

2.3 Banking Financial Performance

Banking financial performance is generally assessed through profitability indicators, with Return on Assets (ROA) serving as a key metric that reflects a bank's efficiency in generating profits from its total assets (Andriansyah et al., n.d.); (Wibowo et al., n.d.) (Brigham & Houston, 2011). ROA is crucial as it indicates management's ability to utilize the bank's resources effectively to create earnings.

2.4 Credit Risk Management

Another critical aspect of banking performance is credit risk management, typically evaluated through the Non-Performing Loan (NPL) ratio. The NPL theory posits that higher NPL ratios signify poorly managed credit risk, which may erode bank profitability. Empirical evidence across countries supports this view. A study in Albania found that NPL ratios have a significant negative effect on profitability indicators such as ROA and Return on Equity (ROE) (ÇELO, 2025). Similar findings were reported in Iraq, where NPLs fundamentally affect various profitability dimensions of banks (Saleh, 2021) .

In Turkey, high NPL ratios were shown to impair asset quality and reduce profitability (Yurttadur, 2019), In Indonesia, a significant negative relationship between NPL and bank profitability has been confirmed both in the short and long term, while evidence from Vietnam indicates that higher credit exposure increases credit risk and reduces profitability (Yen, 2024). Collectively, cross-country evidence suggests that elevated NPL levels are a reliable indicator of ineffective credit risk management, adversely affecting profitability and overall banking system stability (ÇELO, 2025); (Saleh, 2021); (Yurttadur, 2019); (Yen, 2024).

2.5 Intermediation Function

The core function of banks as financial intermediaries is reflected through two main components: Third-Party Funds (TPF) and Credit (Loan Distribution). TPF represents the primary source of funds collected from the public, while credit distribution signifies the bank's principal function in allocating those funds to financing activities. The balance between TPF and credit distribution is crucial for maintaining liquidity and ensuring the sustainability of the intermediation function. Empirical studies indicate that TPF significantly influences credit distribution in regional development banks in Indonesia, with TPF being the most dominant independent variable affecting loan volumes (Riadi, 2018).

Other research has shown that TPF negatively affects ROA in Indonesia's Islamic banking sector, suggesting that higher TPF levels may not necessarily enhance profitability due to increased funding costs (Syachfuddin, 2020). Nonetheless, TPF remains a vital determinant of liquidity and a bank's capacity to extend credit. The balance between TPF and credit distribution is also reflected in the Loan to Deposit Ratio (LDR), which indicates how effectively banks manage funds collected from the public for reallocation into loans (Riadi, 2018). Thus, maintaining equilibrium between TPF and credit distribution plays a strategic role in sustaining liquidity stability, intermediation efficiency, and overall banking performance.

This study employs the concept of Gap Analysis, a strategic management tool used to compare the current performance position (Realization) with the desired position (Wheelen, 2018). In financial and operational contexts, gap analysis assists management in identifying areas for improvement, understanding the root causes of deviations, and formulating predictive corrective actions. Comparing Target vs. Realization for key indicators such as ROA, NPL, TPF, and Credit provides valuable insights into the effectiveness of strategic planning in regional development banks.

3. RESULTS AND DISCUSSION

The gap analysis of Bank Sumut's performance over the three-year period (2020–2022) provides an overview of how effectively management aligned actual outcomes with the strategic targets set in the Bank's Business Plan (RBB). The results indicate consistent performance strength in profitability and risk mitigation, despite fluctuations in the bank's intermediation function.

Table 1. ROA Gap

Years	ROA Realization	ROA Target	Gap (R-T)	Percentage of Achievement	Status
2020	1,89%	Not available	N/A	N/A	N/A
2021	1,66%	2,04%	-0,38%	81,37%	Unfavorable
2022	2,39%	2,11%	0,28%	113,27%	Favorable

The ROA analysis reveals a fluctuating profitability performance compared to the set targets. In 2021, the realized ROA (1.66%) fell below the target (2.04%), achieving only 81.37%. This negative (unfavorable) gap indicates that asset utilization for generating net income was less efficient than projected, likely influenced by challenging macroeconomic conditions (Pramono & Yuniarta, 2020). However, in 2022, Bank Sumut demonstrated a significant recovery, with realized ROA (2.39%) exceeding the target (2.11%), reaching 113.27%. This strong performance highlights the effectiveness of business strategies and management's capability in optimizing post-pandemic profitability.

These findings are consistent with previous research suggesting that internal bank factors, such as capital adequacy ratio and asset quality, positively influence ROA, thereby supporting profitability achievement beyond the targeted level (Sinițîn, 2020). Furthermore, research within the Vietnamese banking context found that lower credit risk (reflected in controlled NPL ratios) enhances ROA performance, implying that Bank Sumut's above-target ROA achievement can be attributed to prudent credit risk management.

Table 2. NPL Gap

Years	NPL Nett Realization	NPL Nett Target	Gap (R-T)	Percentage of Achievement	Status (Realization ≤ Target)
2020	2,24%	Not available	N/A	N/A	N/A
2021	1,80%	2,03%	-0,23%	88,67%	Favorable
2022	1,21%	1,67%	-0,46%	72,46%	Sangat Favorable

The performance of credit risk management, as measured by the NPL Nett ratio, consistently demonstrated favorable outcomes in achieving the predetermined targets (objective: Realization ≤ Target). In 2021, the realized NPL Nett stood at 1.80%, below the target of 2.03%. This performance improved significantly in 2022, with a realized NPL Nett of 1.21%, well below the target of 1.67%. The negative gap (Realization < Target) indicates that the realized level of non-performing loans consistently remained lower than the planned risk tolerance threshold. This achievement is crucial because a low NPL reflects a healthy asset quality, which serves as a fundamental prerequisite for overall bank soundness and a key driver of ROA stability (Ahmaddien & St, 2025) .

Table 3. Third Party Funds (DPK) Gap

Years	DPK Realization (Rp Million)	DPK Target (Rp Million)	Gap (R-T)	Percentage of Achievement	Status
2020	26.947.877	27.280.409	-332.532	98,78%	Unfavorable
2021	30.978.507	38.012.388	-7.033.881	81,49%	Very Unfavorable
2022	31.910.997	32.527.433	-616.436	98,10%	Unfavorable

The performance of Third-Party Funds (TPF) mobilization, however, presented persistent challenges. Throughout the 2020–2022 period, realized TPF consistently fell short of the targets (Realization < Target). The most significant gap occurred in 2021, when the realization reached only 81.49% of the target, indicating major difficulties in fund mobilization or unanticipated shifts in funding strategies. Although an improvement was observed in 2022 with a 98.10% achievement rate, realized TPF remained below the target. The negative gap in TPF, which represents the bank's main liquidity source, should be a management priority since it may constrain future credit distribution capacity (Rufaidah, 2021), (Daulay, 2025).

Table 4. Credit Gap (Intermediation Function)

Years	Credit Realization (Rp Million)	Credit Target (Rp Million)	Gap (R-T)	Percentage of Achievement	Status
2020	23.611.622	24.556.155	-944.533	96,15%	Unfavorable
2021	25.188.296	27.077.419	-1.889.123	93,02%	Unfavorable
2022	27.853.049	27.077.419	775.630	102,86%	Favorable

The performance of credit and financing distribution exhibited a strong reversal trend. Credit realization in 2020 and 2021 consistently fell below the target (achieving 96.15% and 93.02%, respectively). This negative gap aligns with the pandemic conditions that prompted banks to adopt a more cautious approach in extending credit, despite Bank Sumut's efforts to meet its Business Plan (RBB) targets. A turning point occurred in 2022, when credit realization (IDR 27,853,049 million) successfully exceeded the target (IDR 27,077,419 million), achieving a realization ratio of 102.86%. This positive (favorable) gap demonstrates Bank Sumut's success in optimizing its intermediation function amid economic recovery, which served as an important factor (Almi, 2023) contributing to the increase in ROA in 2022.

4. CONCLUSIONS

Conclusion: 1). Bank Sumut's ROA increased significantly, reaching 113.27% of the target in 2022, accompanied by a low NPL Nett ratio (72.46% of the target), reflecting prudent risk management and sound asset quality. 2). Credit realization in 2022 reached 102.86% of the target, indicating the bank's success in optimizing its intermediary role and capitalizing on post-pandemic economic recovery momentum. 3). From 2020 to 2022, TPF mobilization consistently fell short of the target, although improvement was observed in 2022 (98.10%), indicating the need for more competitive and innovative funding strategies. Recommendations: 1). Management should prioritize closing the persistent TPF gap by focusing on expanding the market share of low-cost funds (Current Account Saving Account/CASA) and enhancing digital product and service innovations that attract both retail and corporate customers. 2). Given the success in keeping NPL below target, management is advised to uphold high prudential standards in credit distribution, particularly in newly expanded corporate and commercial credit segments. Strict risk management practices must remain central to sustaining 2022 credit growth without compromising asset quality. 3). Despite strong ROA performance, the bank should diversify its income sources through fee-based income activities to mitigate the risk of interest income volatility. This includes expanding digital transaction services, bancassurance, and custodial services. Study limitations. Data Period Limitation: Target versus realization data for most ratios are only fully available for the 2021–2022 period. The absence of RBB target data in 2020, hinders a comprehensive three-year strategic consistency analysis. The analysis focuses solely on financial and operational performance ratios as outcome indicators, excluding internal or operational variables, that may explain the underlying causes of the TPF or credit gaps. Furthermore, the use of a simple gap (variance) analysis only measures the deviation between realization and target, without assessing the structural or behavioral determinants behind the discrepancies.

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