ANALYSIS OF OPERATING COSTS AND THEIR IMPACT ON NET PROFIT IN FREIGHT FORWARDING AND LOGISTICS ENTERPRISES: AN EMPIRICAL CASE STUDY OF PT SARANA TRANS SUKSES MEDAN (2023–2025)

Abrar Putra Anggara[1], M. Nursidin[2], Dewi Wahyuni[3]

1,2,3 Department of Accounting, Faculty of Economics and Business, Universitas Dharmawangsa, Medan, Indonesia

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***Correspondence Address:**
abrarputra22@gmail.com

Abstract

In capital-intensive freight forwarding and intermodal logistics enterprises, rigorous operational cost containment serves as the definitive determinant of bottom-line profitability and long-term solvency. This empirical study examines the operational management of operating costs and evaluates their direct financial impact on net profit generation at PT Sarana Trans Sukses Medan across a three-year longitudinal period (2023–2025). Adopting a qualitative descriptive case study methodology, empirical evidence was triangulated through participant observation, structured financial document reviews (annual operational budget versus actual realization ledgers, income statements, and cost-center vouchers), and in-depth semi-structured interviews with seven key informants spanning executive, accounting, dispatch, and mechanical tiers: Finance Manager, Operational Supervisor, Field Yard Foreman, Financial Administrative Staff, Freight Cargo Tally Clerk, Driver Fleet Foreman, and Heavy Truck Driver. Qualitative data reduction, matrix display, and thematic verification were conducted following the interactive Miles and Huberman model, supplemented by financial ratio efficiency modeling (Operating Costs to Operating Income / BOPO) and budgetary variance analysis. Research findings demonstrate that operational cost governance at PT Sarana Trans Sukses Medan operates sub-optimally, characterized by persistent unfavorable

budget variances where actual operating expenditures systematically exceeded annual budgetary allocations: IDR 250,000,000 in 2023 (budget: IDR 6.050B vs. actual: IDR 6.300B), escalating to IDR 350,000,000 in 2024 (budget: IDR 6.590B vs. actual: IDR 6.940B), and reaching IDR 450,000,000 in 2025 (budget: IDR 7.120B vs. actual: IDR 7.570B). The primary operational drivers generating these cost overruns include macro-energy policy transitions necessitating shifts from subsidized diesel (solar) to higher-priced non-subsidized Dexlite, compounding fleet aging across heavy commercial trucks triggering frequent breakdown repairs, and extended port terminal demurrage delays during container loading and unloading. Consequently, the BOPO efficiency ratio expanded steadily from 74.44% in 2023 to 79.63% in 2024 and 84.27% in 2025, demonstrating severe operational margin compression. While gross operating revenues expanded by 6.15% (from IDR 8.462B to IDR 8.983B), operating cost inflation (+20.16%) cannibalized surplus earnings, causing net profit to contract precipitously by 34.65%, falling from IDR 2.162 billion in 2023 down to IDR 1.776 billion in 2024 and IDR 1.413 billion in 2025. In conclusion, reactive budgeting and unmonitored variable operating expenditures directly degrade enterprise profitability. To restore sustainable earnings margins, management must transition from post-facto expenditure reviews to proactive preventative fleet maintenance, implement algorithmic route dispatching, establish bulk corporate fuel contracts, and institutionalize real-time cost variance tracking.

1. INTRODUCTION

In modern archipelagic economies like Indonesia, the freight forwarding, maritime haulage (Ekspedisi Muatan Kapal Laut / EMKL), and road logistics transportation sector functions as the indispensable physical connective tissue driving industrial supply chain efficiency and macroeconomic commerce. Operating at the vital intersection between maritime container terminals, regional bonded warehouses, and domestic consumer distribution centers, logistics carriers coordinate complex intermodal freight movements across challenging geographic corridors. However, while national trade volumes and containerized freight demands have grown consistently, the commercial operating environment for road haulage providers is characterized by intense price competition, thin operating margins, and acute exposure to volatile operational cost shocks (Christopher, 2016; Donald et al., 2020; Wang & Li, 2022).

In managerial accounting and corporate financial theory, an enterprise's ultimate viability, capital accumulation capacity, and competitive survival are governed by its ability to generate sustainable net profits (Brealey et al., 2017; Ervina et al., 2020; Yanti et al., 2024). Net profit represents the residual earnings retained by the firm after deducting total cost of goods sold, administrative overhead, financing expenses, and statutory income tax liabilities from aggregate operating revenues (Hendrayanti et al., 2022; Roliana et al., 2021). In road freight forwarding enterprises, operating expenditures constitute the overwhelming majority of total outgoing cash flows. Operating costs—encompassing direct vehicular expenses such as fuel procurement, chassis maintenance, tire replacement, highway tolls, and driver trip allowances, alongside fixed

administrative and terminal overhead—directly determine the cost-efficiency ratio (BOPO) and dictate net profit margins (Dewi & Kusuma, 2019; Susan et al., 2023; Girsang et al., 2025).

PT Sarana Trans Sukses Medan represents an established freight forwarding and intermodal logistics transport provider operating out of Medan, North Sumatra (situated at Jl. Putri Hijau Baru No. 16, Kelurahan Kesawan, Medan). Originally founded as a partnership firm (CV) in 2002 specializing in sea-freight Less than Container Load (LCL) consolidation into Medan, the enterprise successfully achieved corporate transformation in 2012 by incorporating as a limited liability company (Perseroan Terbatas / PT) to service full-scale intermodal container logistics (Full Container Load / FCL) connecting the strategic international deep-water port of Belawan with major commercial centers across Sumatra and Java. Supported by an active fleet of approximately 20 to 30 heavy commercial vehicles—comprising heavy prime movers, container trailer chassis, and light rigid delivery trucks—the company handles substantial freight tonnage for long-term commercial clients.

Despite sustaining positive gross revenue expansion between 2023 and 2025, PT Sarana Trans Sukses Medan has confronted alarming financial margin compression. Internal audited financial records reveal that aggregate annual operating expenditures escalated persistently from IDR 6.300 billion in 2023 to IDR 6.940 billion in 2024, reaching IDR 7.570 billion in 2025—an overall expenditure increase of 20.16%. Crucially, across every single fiscal year, actual operating expenditures significantly exceeded budgeted targets, generating compounding unfavorable budgetary variances that expanded from IDR 250.0 million in 2023 to IDR 350.0 million in 2024 and IDR 450.0 million in 2025.

Preliminary field reconnaissance identified three systemic cost bottlenecks driving these overruns: (1) macro-energy supply adjustments requiring the fleet to transition from subsidized diesel fuel (solar) to premium non-subsidized Dexlite due to severe local fuel rationing, causing fuel expenditures to escalate by 32.0%; (2) progressive mechanical aging across the commercial trailer fleet, necessitating frequent breakdown repairs, costly replacement of imported engine components, and unexpected roadside maintenance; and (3) recurrent port terminal congestion, extended dwell times, and unoptimized dispatch routing that produced demurrage penalties and extra labor compensation. While gross operating revenues grew by 6.15% (from IDR 8.462 billion to IDR 8.983 billion), cost inflation absorbed gross margins, causing annual net profit to contract by 34.65%, plummeting from IDR 2.162 billion in 2023 down to IDR 1.413 billion in 2025.

Prior empirical literature on operating cost management in logistics entities exhibits diverse findings. Dhea Angelica Putri (2025) and Nurul Al Zuhra (2023) established that structured operational cost controls significantly enhance net profit margins in transport firms. Conversely, Putra Rangga Muda & Masta Sembiring (2025) and Hasibuan (2024) observed that many Indonesian transport and production enterprises experience chronic cost inefficiencies due to passive budgetary oversight and volatile input prices. While quantitative correlation studies exist, there remains a distinct scarcity of in-depth qualitative accounting investigations that integrate

granular budgetary variance analysis with multi-tiered operational field interviews to expose the precise operational failure points linking fleet mechanics to net profit degradation. Consequently, this study conducts an exhaustive qualitative case study analyzing operating cost governance and its direct impact on net profit at PT Sarana Trans Sukses Medan across the 2023–2025 period.

2. RESEARCH METHODOLOGY

2.1 Research Design, Site, and Organizational Architecture

This study utilized an explanatory qualitative descriptive case study methodology (Sugiyono, 2019; Alfatih, 2017; Erlianti et al., 2024) to examine operational cost governance within its real-world enterprise setting. The research was conducted at the operational headquarters and logistics depot of PT Sarana Trans Sukses Medan, situated at Jl. Putri Hijau Baru No. 16, Kelurahan Kesawan, Medan, North Sumatra. The research timeline extended from October 2025 through May 2026, comprising preliminary reconnaissance, participant observation, in-depth multi-tiered interviews, documentary financial auditing, and triangulation verification.

Table 1. Profile of Key Research Informants Across Functional Management Tiers

Informant Identifier	Corporate Position	Primary Operational Responsibilities	Subject Matter Investigated
Informant 1 (CR)	Finance Manager (Manajer Keuangan)	Financial planning, annual operating budget formulation, cash flow monitoring, financial statement closing, and profit evaluation	Budgetary variance analysis, macro fuel price shocks, cost control policies, monthly financial evaluations, and net profit trends
Informant 2 (BS)	Operational Supervisor (Supervisor Operasional)	Oversees fleet dispatch scheduling, vehicle availability, cargo transit planning, and route monitoring	Fleet routing efficiency, vehicle turnaround times, load optimization, and operational transit bottlenecks
Informant 3 (HF)	Field Yard Foreman (Mandor Lapangan)	Supervises container yard activities, loading/unloading labor crews, port handling, and demurrage containment	Loading/unloading delays, port terminal congestion, labor

			overtime costs, and cargo staging frictions
Informant 4 (RZ)	Financial Administrative Staff (Staf Adm Keuangan)	Records daily expense vouchers, files fuel and maintenance receipts, processes driver disbursements, and reconciles ledgers	Cost recording workflows, recurring budget variance tracking, fuel slip processing, and invoice documentation
Informant 5 (MS)	Freight Cargo Tally Clerk (Telly Pengangkutan)	Manages freight documentation, delivery orders (surat jalan), container manifests, and client receipt verification	Cargo readiness delays, delivery schedule amendments, and transit documentation errors
Informant 6 (RD)	Driver Fleet Foreman (Mandor Supir)	Coordinates driver assignments, monitors vehicle roadworthiness, oversees daily pre-trip checks, and reports mechanical faults	Fleet mechanical reliability, aging truck breakdowns, workshop repair frequencies, and driver vehicle care compliance
Informant 7 (ED)	Heavy Truck Commercial Driver (Supir)	Executes physical inter-city freight haulage, operates container prime movers, and procures diesel fuel en route	On-road fuel consumption, Dexlite vs. solar fuel performance, roadside repair delays, and highway transit conditions

2.2 Data Collection and Methodological Triangulation

Empirical data were gathered using three complementary qualitative techniques: (1) Direct Participant Observation (Hafni, 2021) of fleet dispatch routines, container loading procedures, workshop repair bays, and daily expense recording; (2) In-Depth Semi-Structured Interviews

(Fadhallah, 2021) with seven key informants spanning all organizational tiers (Table 1); and (3) Documentary Audit (Haryoko et al., 2020) of official accounting ledgers, including annual operating budgets (2023–2025), actual cost ledgers, fuel purchase logs, vehicle maintenance invoices, and audited income statements. Data trustworthiness was established through source triangulation (comparing executive, administrative, yard, and driver testimonies), technique triangulation (cross-verifying interview accounts against physical financial ledgers and observational notes), and member checking with executive leadership.

2.3 Qualitative Data Analysis Model

Data were analyzed using the interactive qualitative analysis model developed by Miles, Huberman, & Saldaña (2014), operating through: (1) Data Reduction—editing, segmenting, and coding field notes, financial figures, and interview transcripts into thematic cost categories; (2) Data Display—organizing reduced data into multi-year budget variance matrices, comparative cost charts, and operational workflow flowcharts; and (3) Conclusion Drawing and Verification—synthesizing empirical findings, testing audit trails, and verifying propositions against established cost management theories.

3. COMPREHENSIVE DISCUSSION

3.1 Cost-Volume-Profit Breakdown and Operating Margin Compression

The empirical findings provide robust validation of Cost-Volume-Profit (CVP) theory within the Indonesian freight logistics sector. In road freight forwarding, operating costs are not merely incidental overhead; they represent the decisive structural boundary separating net profitability from commercial insolvency. Over 2023–2025, PT Sarana Trans Sukses Medan achieved commercial revenue expansion (+6.15%), proving that market demand for its intermodal freight services remained viable. However, this commercial top-line gain was entirely eclipsed by a 20.16% surge in operational expenditures.

This dynamic demonstrates the phenomenon of operating margin compression. In competitive logistics corridors, freight service pricing operates under tight market discipline. Logistics providers cannot arbitrarily adjust contracted freight rates when fuel prices rise or vehicles require overhaul, as commercial shippers will rapidly reallocate container volumes to competing trucking companies. Consequently, cost surges must be absorbed internally. When fuel and maintenance costs expand faster than billing tariffs, net margins deteriorate monotonically, as evidenced by PT Sarana Trans Sukses Medan's net profit margin falling from 25.55% to 15.73%.

3.2 Fleet Aging, Route Inefficiencies, and Diesel Fuel Vulnerability

A detailed examination of line-item cost drivers uncovers three primary operational bottlenecks confronting the company:

1. Commercial Diesel Fuel Vulnerability: Commercial diesel fuel represented the largest direct expenditure, surging from IDR 2.500 billion to IDR 3.300 billion (accounting for 43.6% of total operating expenses in 2025). The shift to Dexlite directly expanded per-trip outlays, magnified by traffic congestion along non-toll national highways.

2. Suboptimal Route Planning and Dispatching: Field interviews revealed that dispatch scheduling frequently relied on manual driver heuristics rather than algorithmic route optimization systems. Circuitous transit paths and suboptimal cargo loading factors resulted in excess mileage, increasing fuel consumption and wear-and-tear per delivered ton.

3. Fleet Aging and Maintenance Overhaul Spikes: Commercial vehicle aging emerged as a severe compounding liability. Fleet maintenance costs escalated by 16.67% (rising from IDR 900M to IDR 1.050B). Older trucks experience higher thermal degradation, engine component wear, and frequent tire blowouts under heavy container payload conditions. Beyond direct repair costs, unbudgeted roadside breakdowns triggered delivery delays, customer demurrage charges, and vehicle downtime.

3.3 Triangulation with Prior Empirical Literature

The findings of this study reinforce and extend earlier empirical literature in logistics financial management. The results align directly with Dhea Angelica Putri (2025) and Nurul Al Zuhra (2023), who established that failure to implement preventive fleet maintenance and fuel efficiency protocols significantly diminishes net earnings. The findings also corroborate Putra Rangga Muda & Masta Sembiring (2025) and Hasibuan (2024), who confirmed that operating cost ratios (BOPO) significantly degrade operating profitability across logistics entities. This study contributes to the literature by providing a granular line-item decomposition of direct versus indirect logistics costs in a medium-sized private carrier, proving that cost management—rather than top-line revenue expansion alone—is the vital determinant of sustainable corporate profitability.

4. CONCLUSION

Based on the empirical findings, financial analysis, and in-depth discussion, the conclusions of this study are established as follows:

1. Operating Cost Governance Status: Operational cost management at PT Sarana Trans Sukses Medan operates sub-optimally, characterized by persistent unfavorable budget overruns where actual expenditures systematically exceeded annual budgets (IDR 250M in 2023, IDR 350M in 2024, and IDR 450M in 2025).

2. Operational Efficiency Degradation: The BOPO efficiency ratio deteriorated monotonically from 74.44% in 2023 to 79.63% in 2024 and 84.27% in 2025, demonstrating severe operational margin compression as operating cost growth (+20.16%) drastically outpaced revenue expansion (+6.15%).

3. Direct Impact on Net Profitability: Operating cost inflation directly cannibalized bottom-line earnings, driving annual net profit down by 34.65% (falling from IDR 2.162 billion in 2023 to IDR 1.413 billion in 2025) and compressing Net Profit Margin from 25.55% to 15.73%.

4. Primary Operational Bottlenecks: Unbudgeted fuel surcharges from shifting to Dexlite, progressive fleet aging requiring emergency mechanical repairs, and terminal demurrage delays constitute the core operational cost drivers eroding profitability.

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