

Cost Optimization and Management Control as Performance Levers: The Case of SETRAM Sidi Bel-Abbes

Sarah BOURI
Higher School of
Management Tlemcen,
Algeria

bouritlm@hotmail.fr

Received: 21/07/2026

Baya Ikhlas TERRAH
Higher School of
Management Tlemcen,
Algeria

baya.terrah22@gmail.com

Accepted: 07/08/2026

Mohammed TIGHENIFI
Higher School of
Management Tlemcen,
Algeria

mohatigh9@gmail.com

Published: 01/09/2026

Abstract:

This study aims to analyze the role of management control in cost optimization within SETRAM Sidi Bel Abbès, a public transport company, over the 2019–2023 period. The methodological approach relies on a case study within the enterprise, combining qualitative and quantitative analyses based on internal operational and financial data. The results confirm that management control contributes to cost optimization. More precisely, the implementation of rigorous mechanisms for budgetary planning, expense tracking, and variance analysis enables the reduction of unnecessary costs and enhances resource allocation. Furthermore, the study validates the importance of these tools in the quality of managerial decision-making, while highlighting that their effectiveness remains contingent upon organizational capacities and staff involvement. Finally, leveraging factors such as the digitalization of information systems and continuous training emerge as essential amplifiers of management control performance.

Key Words: Management control; Cost optimization; Management dashboards; Budgetary control; SETRAM Sidi Bel Abbès.

JEL Classification: M41, D24, L92, L25.

* Corresponding author: Bouri Sarah (*bouritlm@hotmail.fr*).

Introduction:

In Algeria, corporate governance across public and private enterprises remains constrained by structural and administrative limitations (Benlatreche & Bouaziz, 2021). These bottlenecks particularly affect strategic cost management and executive decision-making, which are frequently hampered by underdeveloped internal information systems and a weak analytical culture (Fahas, 2023).

To mitigate these challenges, management control has evolved from a passive compliance tool into an operational framework for planning, regulation, and performance tracking (Boukheroufa & Cherif, 2024). By combining management dashboards, budgetary controls, and cost accounting, it equips decision-makers with

the empirical data needed to contain expenditures and meet organizational objectives (Daho, 2023).

In this context, cost optimization represents more than simple spending cuts; it functions as a systematic approach to eliminating operational redundancies, uncovering hidden costs, and preserving value creation amid economic volatility (El-Hadj et al, 2025).

This study examines these dynamics through the case of the Tramway Operation Company (SETRAM), a major public urban transport operator in Algeria. Operating under strict financial constraints, high fixed costs, and service continuity requirements, SETRAM offers a relevant context to evaluate how management control tools contribute to cost rationalization and overall organizational performance.

Problematic: This research investigates how management control mechanisms facilitate cost optimization at the public transport company SETRAM Sidi Bel Abbès. In a socio-economic climate where expenditure control directly influences the sustainability of public entities, this study addresses a central question: **How does management control contribute to cost optimization within SETRAM Sidi Bel Abbès?**

Hypothesis: To answer this question, two main hypotheses are tested empirically:

- **H1:** Management control enables cost optimization and strengthens budgetary oversight within SETRAM Sidi Bel Abbès.
- **H2:** The overall strategic impact of management control remains limited by reliance on subsidies and administrative burdens.

Significance of the Study: This study provides empirical insights into cost optimization within Algeria public transport sector by analyzing SETRAM operational unit in Sidi Bel Abbès. For public transit enterprises, effective expenditure management is essential to reconcile public service continuity with economic sustainability. By examining internal control practices, this research identifies actionable pathways such as process internalization, regular variance tracking, and commercial revenue generation to optimize resource allocation and strengthen overall financial performance.

Methodology: This study adopts an analytical and deductive approach. The analysis relies on qualitative and quantitative data collected from the company's administrative and financial managers, as well as on the review of internal documents such as management dashboards, activity reports, and budgets. Finally, the deductive method serves to interpret this empirical data using existing theories to evaluate the actual effectiveness of this system in optimizing costs.

I. Literature Review:

This research builds upon a comprehensive review of the literature dedicated to the role of management control in the financial and organizational performance of enterprises. These prior studies form the theoretical foundation of our topic, demonstrating the effectiveness of management tools as strategic levers for steering operations and rationalizing costs. Among these reference studies, we highlight the following:

(Korib & Kerzabi, 2015) conducted a comparative analysis of management control practices between a public enterprise and a private company within the construction and public works sector (*BTPH*) in Tlemcen. Based on direct observation and an examination of management tools (budgets, dashboards, and ratios), their study reveals that the legal nature of an organization significantly influences the integration of the control system. In the public entity, control is highly formalized, heavily focused on procedural compliance, and directly attached to general management. Conversely, in the private company, it is restricted to a retrospective financial monitoring integrated into the accounting department. In conclusion, the authors emphasize that management control in Algeria remains partial, with its effectiveness bottlenecked by a lack of independence for controllers, a weak analytical culture, and the absence of cost management accounting in the private sector.

(Benabed & Guedeche, 2016) analyze the contribution of the management controller to the success of the budgetary process and the improvement of organizational performance. Adopting a theoretical approach grounded in an in-depth literature review, this work examines the controller's role throughout each budgetary phase, from planning to final evaluation. The authors demonstrate that the budget is a fundamental tool for coordination and resource optimization. Within this framework, the management controller acts as a "conductor," responsible for facilitating the procedure, advising operational managers, and performing variance analyses. In conclusion, the study emphasizes that the system's effectiveness depends on efficient budget allocation and the active involvement of all corporate actors, as the controller cannot guarantee the success of the process alone.

(El Hamma, 2020) investigated the contribution of management control to financial performance steering through cost-accounting methods within the Moroccan banking sector. Deploying an empirical methodology based on a questionnaire administered to management controllers and financial directors across several Moroccan commercial banks, the study analyzed the adoption and impact of traditional and advanced costing methods—such as Full Costing, Variable Costing, and Activity-Based Costing (ABC). The empirical findings reveal that accurate cost calculation methods significantly enhance financial performance by providing precise pricing baselines and optimizing operating expenses. Furthermore, El Hamma demonstrated that the strategic integration of costing methods with performance dashboards allows Moroccan banks to improve their profit margins and strengthen financial stability, although the structural complexity of implementing advanced systems like ABC remains a notable operational challenge.

(Fahas M. , 2023) investigated the impact of management control on corporate performance enhancement through the use of non-financial indicators. The author adopted a quasi-quantitative methodology based on an abductive approach, combining a theoretical analysis with an empirical study conducted across 200 Algerian companies. The research demonstrates that integrating non-financial indicators (such as customer satisfaction, quality, innovation, and productivity) is crucial to complementing financial data and steering overall performance. In conclusion, the results emphasize that these indicators strengthen alignment between strategic goals and operational activities, although their adoption in Algeria remains limited due to weakly structured systems and a lack of managerial awareness regarding their potential.

(Daho.K., 2023) examined the contribution of management accounting tools to cost control and reduction through a case study applied to the SONATRACH corporation. The research compares the efficiency of traditional methods (such as full costing and budgeting) against modern instruments (such as Activity-Based Costing and target costing). The analysis demonstrates that adopting the ABC method allows for a more precise determination of costs and a better allocation of resources, thereby facilitating strategic decision-making and maintaining competitiveness. In conclusion, the author stresses the importance of strategically integrating both traditional and modern tools to optimize expense management in a constantly evolving economic environment.

II. Management Control as a Tool for Cost Optimization: A Field Study within the SETRAM Sidi Bel Abbès Company

Examining how management control tools operate within Algerian public transport enterprises requires analyzing both theoretical expectations and field reality. While structured budgetary mechanisms aim to optimize resource allocation, their real-world impact depends heavily on organizational capabilities, information system integration, and workforce adherence.

1. Management Control as a Steering and Cost-Control Tool

Within Algeria's public transport system, evaluating how steering mechanisms influence operational performance requires looking beyond rigid accounting rules. Management control serves primarily as an operational bridge between high-level strategic objectives and daily cost-tracking routines. Rather than producing automatic performance gains, structured budgetary frameworks depend on organizational readiness and employee engagement to prevent control tools from devolving into mere administrative compliance.

At SETRAM, operationalizing these steering principles relies on a central cost-management dashboard fed directly by the Sage X3 ERP system, the DRYs platform, and standardized reporting sheets. Serving as the core decision-support instrument, this single reference document integrates key financial performance metrics to track budgetary execution in real time. By identifying cost variances at an

early stage, it transforms raw accounting inputs into actionable data for corrective managerial decisions.

Table 1: Cost-Steering Dashboard at the Sidi Bel Abbès Operational Unit (Q2 2023, in KDA)

Indicator	Q2 2022 Actual	Q2 2023 Budget	Q2 2023 Actual	Variance (Actual - Budget)	Target Achievement Rate TAR (%)
Turnover	122 826	113 961	156 311	+42 350	137.16%
Operating Subsidy	338 982	323 787	270 155	-53 632	83.43%
Intermediate Consumptions	290 951	285 369	258 624	-26 745	90.63%
Personnel Expenses	150 968	152 364	166 084	+13 720	109%
Value Added (VA)	170 857	152 379	167 843	+15 464	110.15%
Gross Operating Surplus	1 511	0	10 705	+10 705	0
Total Expenses	448 029	448 287	440 169	-8 118	98.19%
Ineligible Expenses	--	38 001	34 368	-3 633	90.44%

Source: Prepared by the authors using data provided by SETRAM.

A detailed analysis of the dashboard indicators highlights several major findings and operational directions for the unit:

1.1. Turnover: The assessment is highly favorable, with a target exceedance of 37.16% (+42 350 KDA) representing a 27.26 %, growth compared to Q2 2022:

$(156\,311 - 122\,826) / 122\,826 = 27.26\%$ and 137.16% target achievement rate compared to the budget: $(156\,311 / 113\,961) \times 100 = 137.16\%$

This strong performance is mainly explained by the development of advertising space rental activities, as well as an increase in transport ticket sales, particularly within the framework of agreements signed with university student service centers.

1.2. Operating Subsidy: The trend shows a budget execution rate (TAR) of 83.43% relative to the allocated budget:

$(270\,155 / 323\,787) \times 100 = 83.43\%$.

This 16.57% reduction (-53 632 KDA) reflects a decrease of 20.30% compared to Q2 2022:

$$(270\,155 - 338\,982) / 338\,982 \times 100 = -20.30\%.$$

This significant drop requires a key clarification: a reduction in subsidies is not necessarily a negative signal if it results from improved operational performance rather than a decline in service quality. In this case, the analysis reveals that SETRAM requested fewer state subsidies due to an improvement in its self-financing capacity.

1.3. Intermediate Consumptions: Intermediate consumptions recorded a decrease of 9.37% compared to the budget:

$$(258\,624 - 285\,369) / 285\,369 \times 100 = -9.37\%$$

And an 11.11% decrease compared to the previous year (year-on-year):

$$(258\,624 - 290\,951) / 290\,951 \times 100 = -11.11\%$$

The management control department identified this optimization opportunity through cost analysis and budgetary monitoring, validating the strategic rollout of process internalization as a sustainable cost-reduction lever.

1.4. Personnel Expenses: Staff expenditures experienced an unfavorable variance of +13 720 KDA, resulting in a 109% budgetary execution rate relative to allocated allocations (152 364 KDA). As detailed in the variance breakdown below, this cost overrun stems from structural personnel realignments and peak-period operational requirements.

1.5. Value Added (VA): Value added registered a slight decrease of 1.76%:

$$(167\,843 - 170\,857) / 170\,857 \times 100 = -1.76\%$$

This slight contraction relative to Q2 2022 stems primarily from the reduction in operating subsidy allocations (-20.30%), which offset the gains achieved from commercial revenue growth (+27.26%) and savings on intermediate consumptions (-11.11%). Despite this marginal decrease year-on-year, the level of value added remains globally stable and comfortably exceeds the quarterly budget target by 10.15% (TAR = 110.15%), reflecting strong control over operating performance.

1.6. Gross Operating Surplus: Gross Operating Surplus reflects the wealth generated by the operational unit after settling personnel costs, duties, and taxes. In the second quarter of 2023, Gross Operating Surplus was positive, reaching 10 705 KDA (compared to a 0 KDA budgetary baseline). This favorable trend reflects superior operational management, which successfully absorbed the 9.00% overrun in personnel costs relative to budget.

1.7. Global Cost Reduction Rate: An overall cost reduction of 1.81% was achieved:

$$(448\,287 - 440\,169) / 448\,287 \times 100 = 1.81\%$$

This decrease signifies overall expense control relative to the forecast budget, demonstrating the effectiveness of management control in budgetary steering and variance mitigation.

1.8. Ineligible Expenses: Actual ineligible expenses (34 368 KDA) remained below the forecast budget (38 001 KDA), representing a 90.44% execution rate. This

confirms effective containment of uncovered expenditures, limiting their impact on the company's equity capital.

2. Detailed Budget Variance Analysis of the Various Expenses

Variance analysis is the fundamental technique of management control. It allows for the decomposition of the difference between actual outcomes and forecasts in order to identify their underlying causes and apply targeted corrective actions. The following table presents the variance calculations for the unit's significant expenses.

**Table 2: Budgetary Variance Analysis of Significant Expenses
(Q2 2023, in KDA)**

Expenses	Q2 2022 Actual	Budget (BI)	Q2 2023 Actual	Variance (KDA)	Achievement Rate (%)
Personnel Expenses	150 968	152 364	166 084	+13 720	109%
Stock Consumption	8 892	13 698	14 739	+1 041	107%
Rolling Stock Maintenance	124 523	143 721	164 352	+20 631	114%
Infrastructure Maintenance	48 665	0	0	0	0
Cleaning	9 319	10 965	9 549	-1 416	87%
Other Expenses	105 662	127 539	85 445	-42 094	67%
Total Expenses	448 029	448 287	440 169	-8 118	98%

Source: Prepared by the authors using data provided by SETRAM.

The empirical results of the variance analysis highlight the following key operational insights:

- **Personnel Expenses (+13 720 KDA / Achievement Rate: 109%):** Staffing costs exceeded initial forecasts due to the permanent internalization of training instructors (IF). Because this transition increased total workforce capacity, the resulting payroll growth reflects a structural baseline shift. Rather than corrective operational measures, this ongoing adjustment requires updating future budgetary assumptions to align with the new cost reality.
- **Stock Consumption (+1 041 KDA / Achievement Rate 107%):** This slight budget overrun stems from localized over-consumption of spare parts during routine field maintenance. Unlike structural payroll shifts, this variance reflects day-to-day operational activity. To eliminate material waste, the management control team validated immediate corrective actions, enforcing

rigorous inventory tracking, physical stock counts, and enhanced spare part traceability.

- **Rolling Stock Maintenance (+20 631 KDA / Achievement Rate 114%):** Fleet servicing registered the quarter's primary budget overrun, rising to 164 352 KDA. This cost expansion reflects an exogenous contractual shift: the execution of a new rolling stock maintenance agreement. Because this contract permanently alters ongoing servicing costs, management control must incorporate these revised financial commitments into upcoming budget updates rather than imposing operational spending cuts.
- **Infrastructure Maintenance (0 KDA / Achievement Rate 0%):** Zero expenditure was incurred this quarter, down from 48 665 KDA in Q2 2022. This complete drop confirms that infrastructure servicing has been fully brought in-house. By transitioning these technical tasks to SETRAM's internal teams, management eliminated a recurring third-party contract, permanently lowering the unit's operational cost baseline.
- **Cleaning (-1 416 KDA / Achievement Rate: 87%):** While this under-expenditure creates a temporary favorable variance, it reflects a timing difference rather than structural savings. Because major deep-cleaning operates on a semi-annual schedule, unperformed work in Q2 shifts mechanically into Q3. Management control must track this deferred liability to prevent cash flow tightness or operational delays in the following period.
- **Other Expenses (-42 094 KDA / Achievement Rate: 67%):** Non-essential operating costs recorded the quarter's largest favorable variance, coming in 33% below allocation. This reduction resulted from a conscious management decision to defer or eliminate secondary outlays, reflecting proactive cash preservation that freed up short-term liquidity.
- **Total Expenses (-8 118 KDA / Achievement Rate: 98%):** Consolidated expenditure closed below the quarterly budget ceiling, yielding net savings of 8118 KDA. However, variance analysis reveals an underlying compensation dynamic: deliberate spending freezes in discretionary categories (Other Expenses, Cleaning) absorbed structural cost overruns in core operational areas (Personnel, Rolling Stock Maintenance), keeping aggregate expenditure within overall targets.

Management control plays a decisive role here: it is precisely through variance analysis that SETRAM management can pinpoint rolling stock maintenance as the most critical line item (+14.4% overrun) and guide corrective decisions accordingly. Without this control mechanism, these slippages would remain undetected until the end-of-year closing.

3. Management Control Decision-Making Dashboard

The decision-making dashboard represents the culmination of the cost analysis process at SETRAM. It synthesizes, within a single, operational document, the most critical variances identified throughout the fiscal year, the threshold levels triggering corrective interventions, and the corresponding actions to be deployed by management control. Consequently, it serves as the direct link between financial data analysis and managerial decision-making, enabling managers to respond with agility and precision to the most sensitive cost centers.

Table 3 : Strategic Steering Dashboard

Problem	Indicator	Threshold	Action	Expected Impact
Rolling Stock Maintenance Budget Overrun	+14.4%	10%	Contract Renegotiation	Reduction in maintenance costs
High Personnel Expenses	98.9% of VA	90%	Human Resources Optimization	Increased profitability
High Subsidization Rate	63.4%	60%	Revenue Generation / Growth	Financial Autonomy

Source: Prepared by the authors using data provided by SETRAM.

The results obtained confirm that management control constitutes an essential lever for cost optimization through variance steering, the analysis of performance indicators, and the guidance of strategic decisions.

Beyond budgetary steering, management control at SETRAM also relies on a comprehensive set of key performance indicators, enabling the measurement and optimization of costs from a broader perspective.

II. Management Control as a Lever for Steering and Rationalizing Expenses

Performance steering at SETRAM relies on a specialized dashboard of Key Performance Indicators (KPI) tailored to the firm's operational and financial context.

As a public urban transit provider, SETRAM operates under specific budgetary parameters, including a heavy reliance on state operating subsidies and strict limits on expense eligibility. To navigate these constraints, the company uses targeted ratios aligned with its operational setting and cost-containment goals. This monitoring framework provides management with the empirical data required for routine decision-making and strategic planning.

1. Management Control Key Performance Indicators (KPI) Dashboard

KPI serve as the core metrics for operational tracking at SETRAM. Financial controllers evaluate these indicators across three distinct reporting periods: Q2 2022

actuals, Q2 2023 budget, and Q2 2023 actuals. This comparative structure measures progress against budget targets and highlights areas requiring cost-control interventions. Table 1 details these primary metrics, including calculation methods, observed figures, and financial interpretations.

Table 4: Management Control KPI Dashboard for SETRAM Sidi Bel Abbès (Q2 2022 / Q2 2023)

KPI Indicator	Calculation Formula	Q2 2022 Actual	Q2 2023 Budget	Q2 2023 Actual	Interpretation
Personnel expenses coverage ratio by revenue	$\frac{(\text{Revenue} / \text{Personnel Expenses}) \times 100}{(156\,311 / 166\,084)} \times 100$	81.4%	74.8%	94.1%	Marked improvement: Significant growth in payroll autonomy funded directly by commercial revenues.
Total expense coverage ratio by revenue	$\frac{(\text{Revenue} / \text{Total Expenses}) \times 100}{(156\,311 / 440\,169)} \times 100$	27.4%	25.4%	35.5%	Enhanced cost structure: Reduced reliance on external operating allocations through revenue expansion.
Share of personnel expenses of VA	$\frac{(\text{Expenses personnel} / \text{VA}) \times 100}{(166\,084 / 167\,843)} \times 100$	88.4%	100%	98.9%	Favorable variance: Outperformed the budget allocation (100%), leaving a residual value-added margin of 1.1%
Gross Operating Surplus Share of Value Added	$\frac{(\text{Gross Operating Surplus} / \text{VA}) \times 100}{(10\,705 / 167\,843)} \times 100$	1%	0%	6.3%	Highly positive signal: The business unit generated an operating surplus equal to 6.3% of its VA
Budget Underrun Rate (Unconsumed Budget Rate)	$\frac{[(\text{Budget} - \text{Actual}) / \text{Budget}] \times 100}{[(448\,287 - 440\,169) / 448\,287]} \times 100$	0%	0%	1.8%	Budgetary discipline: 1.8% of the total operating budget remained unspent at quarter-end.
Budget overrun rate Maintenance & Repairs (MR)	$\frac{[(\text{Actual} - \text{Budget}) / \text{Budget}] \times 100}{[(164\,352 - 143\,721) / 143\,721]} \times 100$	0%	0%	+14.4%	Critical cost alert: Significant contractual overrun requiring budget reallocation and contract renegotiation.

Source: Prepared by the authors using data provided by SETRAM.

An analysis of the data from Q2 2022 to Q2 2023 shows a clear improvement in the financial position of the SETRAM Sidi Bel Abbès unit. Commercial revenues covered 94.1% of personnel costs, up from 81.4% in 2022 and well above the 74.8% budget target. At the same time, the overall expense coverage ratio rose from 27.4% to 35.5%, reducing the unit's dependence on state operating subsidies.

This growth in commercial activity restored positive operating margins, generating an unbudgeted EBITDA margin of 6.3% of Value Added. Although payroll still accounts for the bulk of expenditure by absorbing 98.9% of Value Added, it remained below the 100% budget cap, leaving a 1.1% residual margin. Overall, cost discipline kept total expenses below budget to yield a 1.8% net saving. However, the 14.4% overrun in Rolling Stock Maintenance remains a key point of vigilance, requiring technical audits and contract renegotiations with suppliers.

2. SETRAM-Specific Steering Dashboard

Non-eligible expenses represent a unique strategic challenge for SETRAM (they cannot be covered by state subsidies and must therefore be financed exclusively through the company's equity). Steering these expenses is a direct responsibility of management control, which must not only ensure systematic monitoring but also propose levers for cost reduction.

Table 5: Steering Dashboard for Non-Eligible Expenses (Q2 2023, in KDA)

Ineligible Expenses Item	Budget	Actual	Variance (%)	Risk Level	Recommended Management Controller Action
Depreciation and Amortization	11 778	10 910	92.6%	Low	Verify the depreciable asset base and regularize accounting entries.
Fines and Penalties	0	0	0%	None	Maintain strict contractual and regulatory compliance.
Financial Expenses (Interest on Borrowings)	0	0	0%	None	Maintain the zero-debt financing policy.
Provisions PIDR (Retirement Indemnity)	8 091	9 558	118.1%	High	Review the retirement plan and provision with actuarial precision
Other Ineligible Expenses	1 132	997	88%	Moderate	Identify and gradually eliminate non-compliant expenses.
Total Ineligible Expenses	38 001	34 368	90.4%	Moderate	Objective: Reduce by 15% by the end of the fiscal year through provision optimization.

Source: Prepared by the authors using data provided by SETRAM.

The analysis of this table reveals that, while overall ineligible expenses were effectively controlled (standing at -10 % relative to the budget), the provision for retirement indemnities emerges as a major point of vigilance, showing a budget overrun of 18.1%. Management control must recommend an actuarial review of these provisions to refine future estimates and safeguard the unit's self-financing capacity.

3. Longitudinal Analysis of Performance Evolution Indicators

Evaluating unit cost trajectories provides a structured basis for measuring operational efficiency at the Sidi Bel Abbès unit over time and against transit sector standards. For financial controllers, tracking these longitudinal shifts yields objective early-warning signals to guide resource allocation.

Table 6 : Performance Analysis Dashboard

Indicators	Formula	2019 Actual	2020 Actual	2021 Actual	2022 Actual	2023 Actual
Cost per Passenger	Total Expenses / Number of Passengers	/	239 (DA)	208 (DA)	127 (DA)	121 (DA)
Total expense coverage by revenue	(Revenue/ Total Expenses) × 100	17%	19%	25%	27%	36%
Subsidization Rate	Subsidy / Total Expenses × 100			84%	76%	61%

Source: Prepared by the authors using data provided by SETRAM.

To evaluate the evolution of operational efficiency at the SETRAM Sidi Bel Abbès unit, financial analysis focuses on three core indicators: the cost per passenger, the total expense coverage ratio by revenue, and the subsidization rate.

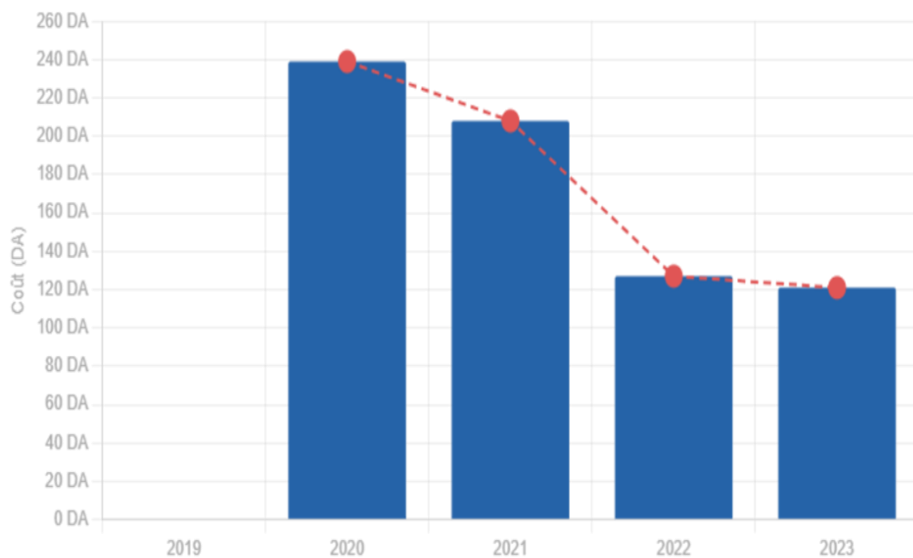
At the operational level, the cost per passenger recorded a sharp decline, falling from 239 DA in 2020 to 121 DA in 2023. This drop reflects improved fixed-cost absorption following traffic recovery, supported by tighter internal cost control. Concurrently, the coverage of expenses by commercial revenues steadily improved from 17% in 2019 to 36% in 2023, driven by passenger growth and secondary commercial initiatives such as advertising space.

However, these operational gains must be put into perspective regarding the company's overall financial framework. Although the subsidization rate decreased from 84% in 2021 to 61% in 2023, public subsidies remain the core financial foundation of the unit. Consequently, while local unit costs have been successfully optimized, the operational unit remains structurally dependent on state support to maintain financial balance.

3.1. Evolution of Cost per Passenger

The temporal analysis of unit costs serves as a primary metric for assessing the evolution of SETRAM overall productivity. As suggested by the company's data analysis, the unit cost per passenger followed a continuous downward trajectory over the period under study.

Figure 1: Analysis of Cost per Passenger Evolution



Source: Prepared by the authors using data provided by SETRAM.

Analysis of the graph shows a progressive decrease in the cost per passenger between 2020 and 2023. This figure dropped from 239 DA in 2020 to 208 DA in 2021, then to 127 DA in 2022, before reaching 121 DA in 2023. This significant decline reflects a continuous improvement in the company's operational efficiency.

This trend can be explained by tighter control over operating expenses as well as a gradual increase in the number of passengers transported. Indeed, as passenger volume increases, fixed costs are distributed over a larger user base, which directly contributes to lowering the unit cost of transport.

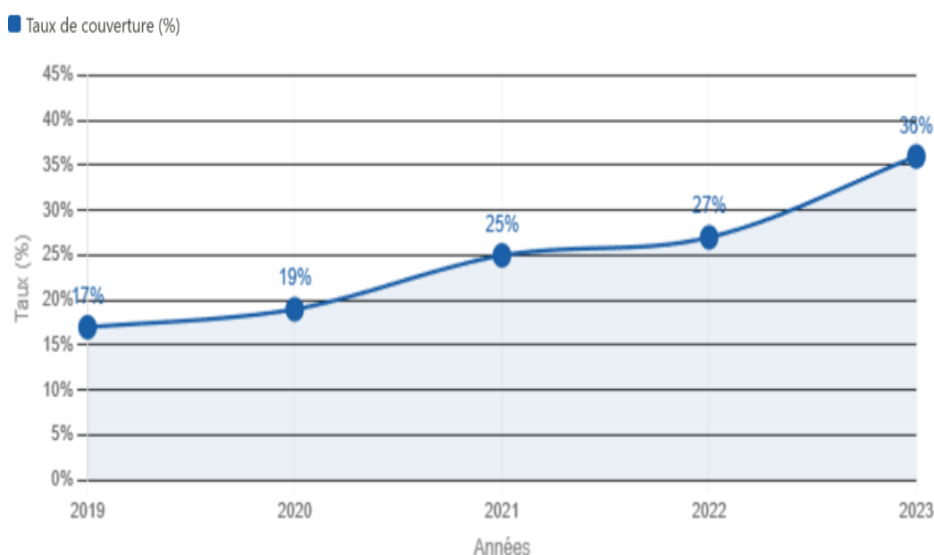
Beyond unit cost analysis, evaluating financial performance also requires examining the company's budgetary management. To this end, the budget under-consumption rate measures SETRAM ability to contain its expenditures relative to initial budget forecasts.

3.2. Total Expense Coverage Ratio by Revenue

Evaluating financial sustainability requires examining the firm's capacity to generate self-sustaining resources. In this regard, analyzing the total expense

coverage ratio by commercial revenue reveals a substantial improvement in SETRAM financial performance between 2019 and 2023.

Figure 2: Analysis of the Total Expense Coverage Ratio by Revenue



Source: Prepared by the authors using data provided by SETRAM.

An analysis of the total expense coverage ratio by revenue reveals a significant improvement in SETRAM financial performance between 2019 and 2023.

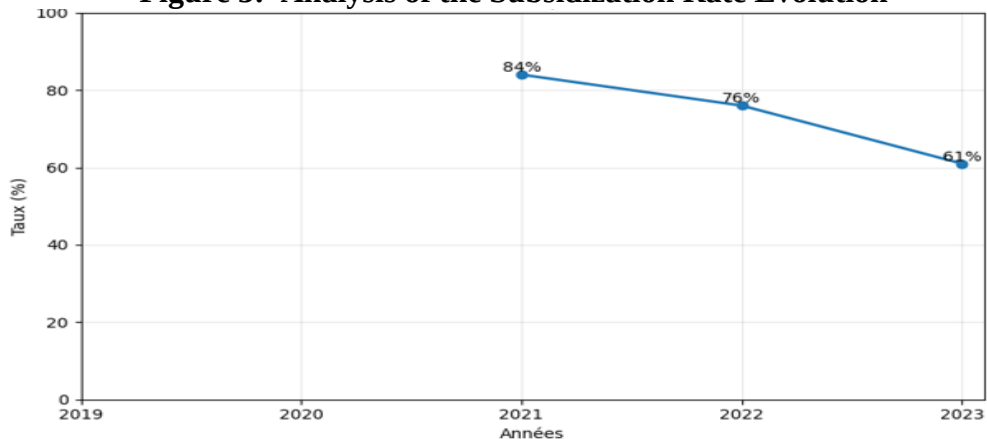
In 2019, this ratio stood at only 17%, reflecting very low financial autonomy as revenue covered only a small portion of operating costs. In 2020, despite the context of COVID-19, the ratio improved slightly to 19%, though it remained structurally low.

From 2021 onwards, this trend accelerated: the ratio reached 25%, climbed to 27% in 2022, and ultimately reached 36% in 2023. This steady progress highlights improved internal revenue generation and tighter control over operating expenses.

Nevertheless, a coverage ratio still below 50% in 2023 shows that SETRAM remains heavily reliant on public subsidies. A complete evaluation of its true financial autonomy would therefore benefit from incorporating the subsidization rate alongside this metric.

3.3. Subsidization Trends and Strategic Autonomy

To assess true financial autonomy, this structural deficit must be cross-analyzed with the public subsidization rate. As detailed in Figure 3, the unit's reliance on state subsidies declined steadily over the 2021–2023 period.

Figure 3: Analysis of the Subsidization Rate Evolution

Source: Prepared by the authors using data provided by SETRAM.

The analysis of the chart highlights a progressive decline in the subsidization rate over the 2021–2023 period. This indicator contracted from 84% in 2021 to 76% in 2022, ultimately settling at 61% in 2023.

This decrease reflects a gradual reduction in SETRAM financial reliance on public subsidies. It also indicates a relative improvement in the company's ability to cover its operating expenses through its own generated revenues.

These indicators confirm the effectiveness of the management control mechanisms implemented by SETRAM, which contribute to enhancing overall performance, rationalizing costs, and supporting the decision-making process.

Conclusion:

This study analyzes the contribution of management control to cost optimization within the SETRAM Sidi Bel Abbès operational unit over the 2019–2023 period. Facing the structural and budgetary constraints inherent to Algeria's public transit sector, the empirical findings validate that management control operates as a vital lever for decision-making support and performance steering. More precisely, the rigor of tracking practices such as budgetary planning, expense monitoring, and regular variance analysis directly ensures the efficiency of the organization's cost structure by eliminating redundant expenditures.

However, institutional rigidities within public enterprise administration and structural reliance on public subsidies alter these theoretical outcomes. Rather than functioning purely as an engine for financial optimization, control systems frequently degenerate into compliance-focused administrative routines. Overcoming these operational bottlenecks requires modernizing the underlying digital infrastructure and upgrading internal accounting skillsets across the organization.

References:

- Benabed, M., & Guedeche, K. (2016). Le contrôleur de gestion et le processus budgétaire. *Revue Chercheur Économique*, 10 (2). 101–120.
- Benlatreche, G., & Bouaziz, T. (2021). La gouvernance des entreprises publiques en Algérie : Entre réformes managériales et contraintes structurelles. *Revue Algérienne de Management*. 6 (2). 112-128.
- Boukheroufa, M., & Cherif, A. (2024). L'évolution du contrôle de gestion et le pilotage dynamique de la performance organisationnelle dans les pays en transition. *Journal of Academic Research in Economics and Management*, 13 (1). 45-63.
- Daho, K. (2023). La contribution des outils de la comptabilité de gestion dans la maîtrise et la réduction des coûts au sein des entreprises économiques : Étude de cas de la société SONATRACH. *Revue d'Études Économiques et Financières*, 16 (1). 245-260.
- El Hamma, I. (2020). Pratiques du contrôle de gestion et performance financière : Cas des banques marocaines. *Revue du Contrôle, de la Comptabilité et de l'Audit*. 4 (2). 112-131.
- El-Hadj, E., Slimani, F., & Ghouila, A (2025). Optimisation des ressources et rationalisation des charges dans la région MENA : Une approche par les modèles de pilotage moderne. *Middle East Journal of Business and Management*. 10 (2).78-95.
- Fahas, M. (2023). L'impact du contrôle de gestion sur l'amélioration de la performance des entreprises à travers l'usage des indicateurs non financiers : Étude empirique auprès de 200 entreprises algériennes. *Revue des Sciences Commerciales et de Gestion*. 11(3). 189-204.
- Fahas, M. (2023). La contribution du contrôle de gestion dans le pilotage de la performance économique et financière (approche par les indicateurs on financiers). Thèse de doctorat. Université d'Oran.
- Korib, N., & Kerzabi, A. (2015). Contrôle de gestion : Analyse comparative entre une entreprise publique et une entreprise privée. *Revue maghrébine d'économie & management* (2).