

COMPARATIVE FINANCIAL PERFORMANCE OF URBAN AND RURAL STATE ROAD TRANSPORT CORPORATIONS IN INDIA

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Abstract

State Road Transport Corporations (SRTCs) in India are essential for providing affordable and accessible public transportation in urban and rural regions alike. Nonetheless, a significant difference in their financial performance is evident, attributed to variations in operational environments, passenger densities, and infrastructure conditions. This study conducts a comparative analysis of the financial performance of selected urban and rural SRTCs by utilizing key performance indicators, including operating ratio, revenue and cost per kilometre, load factor, and subsidy dependency. The analysis, utilizing secondary data from government reports, annual audits, and performance reviews, indicates that urban SRTCs typically attain superior financial outcomes owing to increased ridership and operational efficiency. In contrast, rural SRTCs encounter difficulties including low occupancy rates, elevated operating costs, and a heightened dependence on state subsidies. The analysis emphasizes the necessity for tailored strategies, enhanced funding approaches, and focused policy measures to improve the financial viability and service excellence of SRTCs throughout India.

The establishment of these corporations aimed to offer an affordable and sustainable transportation solution for the citizens of India, while also enhancing connectivity to the rural areas of the country. Throughout the years, there has been a notable decline in both the financial and physical performance of the majority of State Road Transport Undertakings. The social objectives, political dynamics, and inadequate management have emerged as significant contributors to the financial losses experienced by many State Road Transport Undertakings.

Key words: road transportation, urban, rural, economic, sustainable journey, government sector, private sector

Introduction

Throughout history, human sensitivity has demonstrated a desire for mobility, which serves as an indicator of societal advancement. The evolution of mobility and transport is intrinsically linked to the development of civilization. For any country to progress effectively, establishing modern and efficient transport as a fundamental infrastructure is essential. Throughout the history of any nation, it has been observed that a well-developed, comprehensive, and effective road transport system has significantly contributed to progress. Transporters engage in a critical function, essential to every phase of developed society. In this analogy, roads function as the veins and arteries of a nation, while the transportation of passengers and goods is comparable to blood flowing through the circulatory system. The provision of passenger road

transport services plays a crucial role in fostering economic development. Transportation serves as a fundamental means through which individuals not only connect but also advance.

Public road transport organizations play a crucial role in the Indian transport sector. As the volume of cars and two-wheelers rises, leading to heightened traffic congestion and pollution, bus-based public road transport services effectively cater to a greater number of commuters. The average energy consumption of a car is six times greater than that of a bus, while two- and three-wheelers consume 2.5 and 4.7 times more energy than a bus, respectively. This underscores the necessity for the expansion of public road transport entities as a solution for mass commuting to address the transportation needs of the nation. Public road transportation organizations need significant enhancements in various areas to emerge as the preferred option for passenger commuting.

For public road transport organizations to serve as an effective means of mass communication, it is crucial that they achieve financial and operational efficiency. It is essential for road transport organizations to enhance traffic revenue, reduce superfluous costs, improve operational efficiency, and ensure the delivery of safe, accident-free services to passengers. It is essential to identify the top-performing road transport organization for each criterion, benchmark their performance, and disseminate the key insights among the organizations involved. State Road Transport Corporations (SRTCs), created under the Road Transport Corporations Act of 1950, are tasked with delivering fair transport services. Urban SRTCs are designed to serve densely populated cities, whereas rural SRTCs focus on providing last-mile connectivity. The financial viability of these corporations is crucial for their ongoing provision of services.

1. Objectives and Need

The manifold of this research paper is to study the performance of the urban and rural road transportation that mainly taken through bus service. Hence, focus is made from this point of view to understand the system and necessity of it. The aim is to pinpoint the operational and financial hurdles unique to urban and rural transport corporations, such as inefficiencies, funding shortfalls, and fluctuations in demand. The objective is to evaluate the sustainability of current financial models employed by various SRTCs and their effectiveness in providing cost-efficient public transport services. To assess the level of governmental assistance and subsidy needs for sustaining SRTC operations, particularly in rural regions that are not performing well. Another objective is to analyse the financial performance of urban and rural State Road Transport Corporations (SRTCs) in India by utilizing essential metrics including operating ratio, cost and revenue per kilometre, load factor, and subsidy dependency. To propose policy interventions and operational reforms aimed at enhancing financial outcomes and service delivery in urban and rural environments.

There are some main needs of transportation which enhance the performance of it and necessary for modern world.

- Financial analysis indicates that rural SRTCs, even while incurring losses, play a crucial role

in promoting social inclusion. This connection facilitates access to education, healthcare and markets in remote areas.

- Urban SRTCs, despite encountering congestion and rising costs, demonstrate greater financial efficiency owing to increased ridership and more concise routes.
- Their presence alleviates traffic congestion and diminishes pollution by providing dependable mass transit options, rendering them essential for sustainable urban growth.
- The financial differences observed between urban and rural SRTCs highlight the existing regional inequalities.
- Both urban and rural SRTCs serve as significant public employers. Guaranteeing financial sustainability fosters job security, particularly in economically disadvantaged areas.

A multitude of studies has been carried out to evaluate the performance of transportation systems and related fields through the application of MCDM techniques [1]. A review of papers published between 1982 and 2014 has been presented, highlighting the MCDM techniques utilized for decision making in urban public transport systems. In [2] study, Indian state and regional transport units were assessed through the application of DEA and AHP methodologies. He employed a top-down methodology and calculated the overall efficiency metrics to analyze the performance of a specific transportation unit. A performance evaluation of Indian roads was conducted in [3] using state-wise data and the PROMTHEE_GIS method.

The operational effectiveness and financial stability of SRTCs have been the subject of numerous studies. Previous studies [4] [5] have demonstrated that whereas rural SRTCs have poor occupancy and high operating expenses, urban SRTCs often have superior revenue recovery because of their higher passenger density.

2. Methodology and Scope of Study

This article aims to evaluate and analyse the financial performance of State Road Transport Corporations (SRTCs) that operate in both urban and rural areas throughout all Indian states and union territories where they are located. The main goal is to analyse important operational and financial metrics over a predetermined period of time.

The study's scope establishes the parameters, target areas, and extent of the comparative financial performance analysis of India's urban and rural SRTCs.

- **Geographical scope:** State Road Transport Corporations (SRTCs) that are active in all Indian states and union territories are included in the study. It comprises businesses that cater to mixed (urban-rural) and urban areas.
- **Temporal scope:** The five most recent fiscal years, from 2018–19 to 2022–23, are the subject of the analysis. Trends, policy effects, and performance changes can be identified

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during this time, including how exogenous shocks like the COVID-19 epidemic effect transportation costs and revenues.

- **Sectoral scope:** The research is limited to state-run public transportation projects overseen by the Road Transport Corporations Act of 1950. This analysis does not include metro rail corporations, private bus operators, or app-based transport aggregators.
- **Financial scope:** Particularly, the study focuses on the financial and operational performance of SRTCs, including: revenue generation (revenue/km, fare structure), operational efficiency (cost/km, fuel efficiency), fiscal sustainability and subsidy dependence, staff productivity,

fleet utilization, load factor, and passenger occupancy.

3. Data Formulation

All of the information included in the study came from secondary sources: Complete SRTC Annual Reports, evaluations of state transport undertakings by the Ministry of Roads and Highways (MoRTH), Public transportation performance audits in reports from the Comptroller and Auditor General (CAG), Official publications and websites of the State Transport Department. The NTDPC, or National Transport Development Policy Committee, compiles Transportation policy papers, working papers, and other academic periodicals documents.

In India, SRTCs (State Road Transport Corporations) face a wide range of demographic and geographical challenges. Their operational and financial strategies are heavily impacted by whether their service regions are urban, rural, or a mix of the two. The main areas of operation for urban SRTCs are cities and metropolitan areas. High passenger density and frequent services, shorter travel lengths, and higher revenue per kilometre are the defining characteristics of their operations. Additional difficulties that need to be taken into account include traffic, fluctuating fuel prices, and fare regulation. Companies who operate rural SRTCs aim to link outlying areas with more populous ones. The main characteristics of these routes include long distances and low densities, lower occupancy levels, higher operating expenses, and a larger reliance on government subsidies for routes that are not profitable.

One can see various types of State Road Transport Corporations (SRTCs) in India, including those serving urban areas, rural areas, and a mix of the two, in this visual comparison.

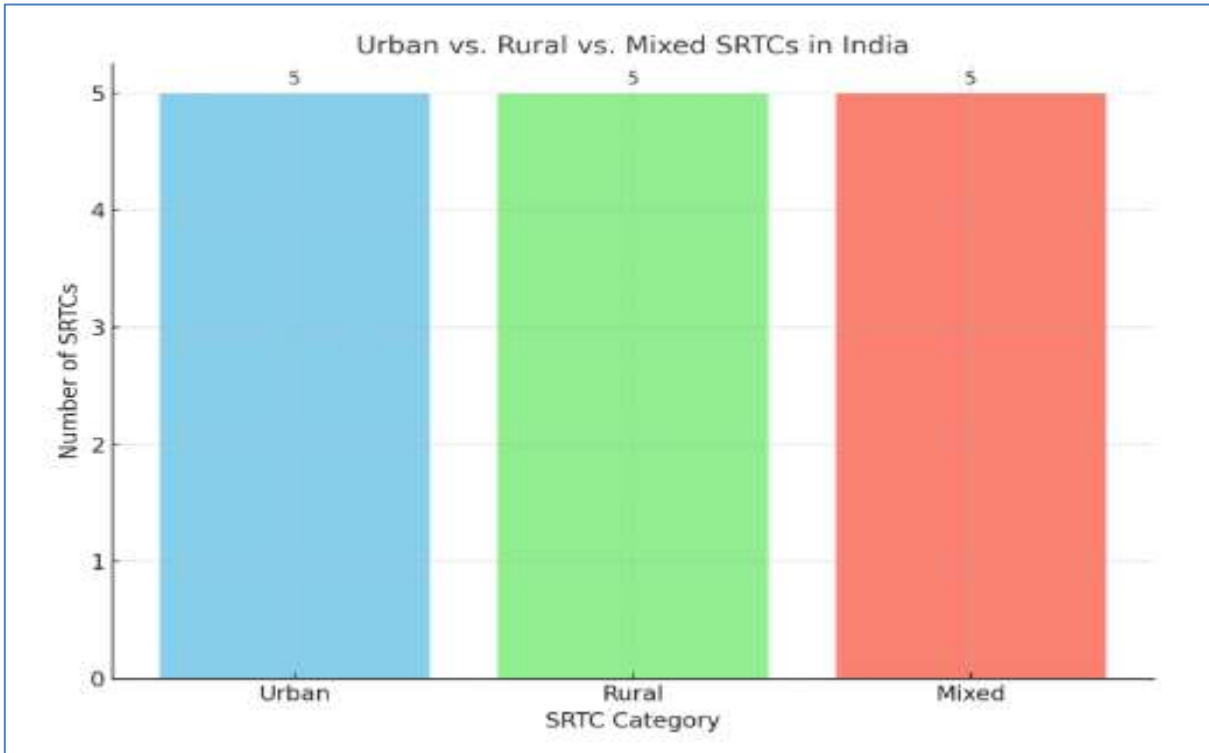


Fig.1 Graph of state road transportation corporation in India

It is possible to compare the financial health of SRTCs more accurately if they are categorized according to their operational focus. Rural and mixed SRTCs confront operational issues that necessitate governmental involvement and policy backing, in contrast to urban SRTCs, which often enjoy greater economies of scale and income creation.

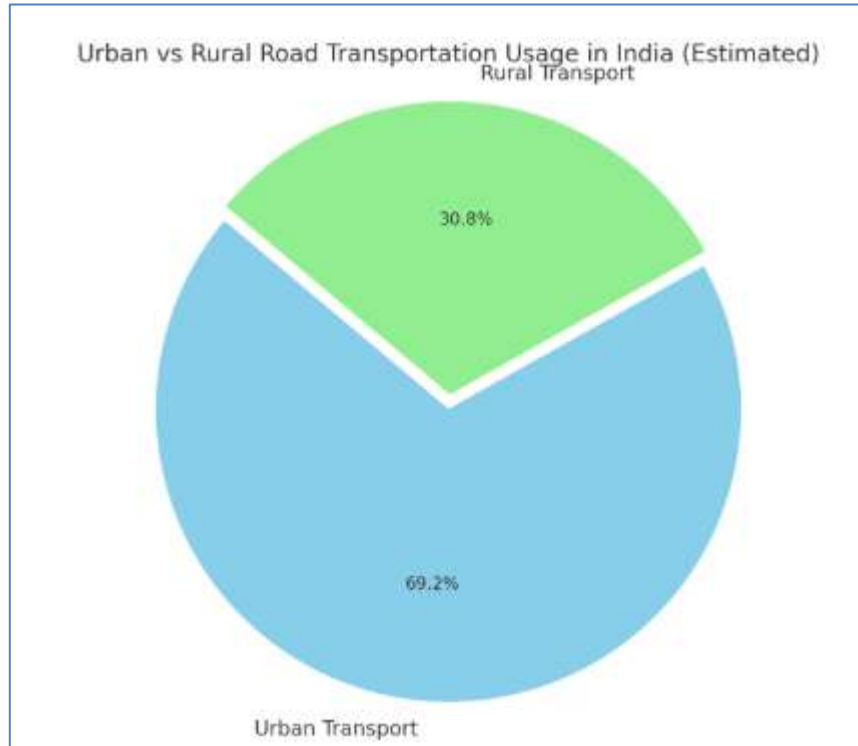


Fig.2 Urban & rural road transportation in India

One can see the projected utilization of road transportation in India's urban and rural areas, measured in million passenger-kilometres per day, in the pie chart up there. It emphasizes how urban regions, with their higher population density, more frequent services, and better infrastructure, account for a far larger portion of all transportation compared to rural areas, which typically have worse connectivity and fewer services available.

4. Role of Government Subsidy

Everyone, especially those with less financial or social resources, is required by law to have access to SRTCs' affordable and easily navigable transportation services. But it's not feasible to run without government funding due to a number of structural and operational inefficiencies, particularly in outlying and rural regions. The subsidy works to pay for:

- Operating losses on routes that do not generate a profit
- Discounted fares (for instance, those applicable to students, the elderly, and people with disabilities)
- Financial resources allocated to the update of fleet
- Variations in fuel prices and unpaid wages
- Financial hardship caused with COVID-19

➤ Public Policy

- Instead of providing bailouts to everyone, try tying subsidies to certain services (like school buses or rural routes).

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- Reduce reliance on state money by encouraging public-private partnerships (PPPs) in operations and maintenance.
- To rationalize fares, we should implement tiered fare models or dynamic pricing in densely populated locations to close the revenue gap.
- Government aid should be contingent upon meeting certain performance criteria, such as a certain load factor, fuel efficiency level, or level of passenger pleasure.
- Digitization and Monitoring: Keeping tabs on data in real-time to make sure money is being used honestly and efficiently.

5. Challenges

For millions of Indians, access to inexpensive and fair transportation is dependent on the work of State Road Transport Corporations (SRTCs). But they're up against big obstacles that are threatening their long-term viability and the quality of their services. While many of these difficulties are universal, others are more specific to urban and rural regions.

Financial loss:

Operating losses are exacerbated by high operational costs, which include increasing fuel prices, labour, maintenance, and taxes. Limited Capacity to Recoup Expenses: Subsidized and fixed tariff structures make it difficult to generate sufficient revenue. Excessive Reliance on Government Subsidies: In rural areas in particular, many SRTCs rely entirely on government funding to stay open.

Outdated infrastructure:

Fuel consumption and repair expenses are increased since many SRTCs use outdated and inefficient buses. Budget restrictions have prevented the purchase of new buses (such as electric or compressed natural gas ones) and smart depots. Public faith in SRTC services is diminished due to irregular schedules, frequent breakdowns, and poor route coverage. People in cities typically drive their own cars or use apps, while people in rural areas don't have many options.

Technology backward:

The following are still lacking at many SRTCs: digital accounting and analytics tools, real-time tracking and passenger information systems, and electronic ticketing systems.

6. Conclusion

Understanding the structural inequalities, operational limitations, and financial vulnerabilities that impact India's public transport systems can be gained by comparing the financial performance of rural and urban State Road Transport Corporations (SRTCs). Despite the fact that SRTCs in urban and rural areas serve critical functions in guaranteeing accessible and inexpensive transportation, the environments in which they function could not be more different. Despite having high operational costs, urban SRTCs have a reasonably consistent revenue base because to dense ridership and shorter routes. Contrarily, rural SRTCs run on sparsely populated, long-distance routes and frequently lose a lot of money because to low fare recovery, underutilization, and a lot of social obligations. Financial success and fair service delivery are two competing goals for mixed SRTCs, which provide services to both urban and

rural

areas.

Rural SRTCs are even more dependent on government subsidies than their urban counterparts, according to the study's most important finding. Older fleets, lower worker productivity, poor fare structures, and a lack of technology integration all contribute to this reliance.

Despite all of these obstacles, SRTCs nonetheless serve an important social and economic purpose, especially for people in rural areas, those with low incomes, and those who are particularly vulnerable. However, state governments are facing budget restrictions, decreased ridership in certain urban regions, and increasing competition from private operators, all of which are threatening their survival.

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