

Staff Productivity as a Strategic Driver of Financial Viability in State Road Transport Undertakings

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Abstract:

State Road Transport Undertakings (SRTUs) play an important role in providing affordable and accessible passenger transport services in India. However, their financial sustainability has historically been affected by high operating costs, personnel expenditure, fuel costs, social-service obligations and operational inefficiencies. In this context, staff productivity assumes considerable importance because manpower is one of the major components of the cost structure of SRTUs. The present study examines staff productivity as a strategic driver of financial viability in State Road Transport Undertakings, with the study restricted to information available up to 31 March 2012. The study is based on secondary data obtained mainly from the Ministry of Road Transport & Highways and research studies available up to 2012. Staff productivity is assessed through revenue-earning kilometres performed per worker per day, while financial viability is examined using revenue, total cost, profit/loss and major cost components. The study finds that average staff productivity increased marginally from 56.0 km per staff per day in 2010–11 to 56.5 km in 2011–12. However, the aggregate financial position remained weak, as total cost increased by 12.9%, compared with a 12.8% increase in revenue, and the aggregate loss increased from ₹5,898.98 crore to ₹6,588.15 crore. Staff cost represented 39.6% of total cost in 2011–12. The study concludes that improvement in staff productivity can contribute to financial viability through better manpower utilisation, higher operational output and improved cost efficiency, but it needs to be supported by improvements in fleet utilisation, revenue generation, fuel efficiency and overall cost management.

Keywords: Staff Productivity, Financial Viability, State Road Transport Undertakings, Manpower Productivity, Operating Cost, Public Transport, SRTUs

Introduction

State Road Transport Undertakings (SRTUs) are an important component of India's public passenger transport system, providing mobility and connectivity across urban, rural and remote areas. Unlike purely commercial transport operators, SRTUs are also required to fulfil social-service obligations by operating on economically less viable routes and providing concessional services. Consequently, their financial performance is influenced not only by revenue and cost considerations but also by wider public-service responsibilities. Financial sustainability has remained a major challenge for SRTUs. Rising fuel prices, personnel expenditure, maintenance costs, taxes, interest and depreciation have placed considerable pressure on their cost structure. The performance review for 2011–12 indicates that the total cost of 37 reporting SRTUs increased from ₹37,744.04 crore in 2010–11 to ₹42,626.33 crore in 2011–12, representing an increase of 12.9%. During the same period, total revenue increased from ₹31,843.38 crore to ₹35,928.73

crore, an increase of 12.8%. As the growth in cost slightly exceeded the growth in revenue, the aggregate net loss increased from ₹5,898.98 crore to ₹6,588.15 crore. Among the major components of expenditure, staff cost is particularly significant. In 2011–12, staff cost accounted for 39.6% of total cost, while fuel cost accounted for 30.1%. Together, these two components represented 69.7% of total cost. This indicates that effective management of manpower and fuel consumption is critical for improving the cost efficiency of SRTUs.

In this context, staff productivity assumes strategic importance. Staff productivity reflects the extent to which the available workforce contributes to transport output. The Ministry of Road Transport & Highways measures staff productivity in terms of average revenue-earning kilometres performed per worker per day. The average staff productivity of reporting SRTUs increased marginally from 56.0 km per staff per day in 2010–11 to 56.5 km in 2011–12. Although this improvement is positive, its relatively small magnitude suggests considerable scope for further improvement in manpower utilisation. Improving staff productivity, however, should not be interpreted simply as reducing the number of employees. Rather, it involves the optimum utilisation of available manpower through appropriate deployment, efficient duty scheduling, employee training, performance monitoring and better coordination between manpower and fleet operations. Higher staff productivity can contribute to greater operational output, better fleet utilisation and lower personnel cost per kilometre, thereby supporting financial improvement.

Against this background, the present study examines staff productivity as a strategic driver of financial viability in State Road Transport Undertakings, with the analysis restricted to evidence available up to 31 March 2012.

Review of Literature

Koshal and Koshal (1989) Koshal and Koshal examined the long-run production and cost functions of the State Road Transport industry in India. Their study found the existence of economies of scale in the industry and suggested that expansion in response to demand could provide economic efficiency benefits. The study is relevant to the present research because it highlights the importance of efficient scale and resource utilisation in the transport sector.

Singh (2000) Singh examined the technical characteristics and productive efficiency of Indian State Road Transport Undertakings using panel data covering nine undertakings for the period 1983–84 to 1996–97. The study used a cost-function approach to examine productive efficiency and provided evidence on differences in efficiency among State Transport Undertakings. The study establishes the importance of operational efficiency in evaluating the performance of public transport undertakings.

Singh (2000) – Total Factor Productivity Singh also examined total factor productivity of State Road Transport Undertakings over the period 1983–84 to 1996–97. The study focused on changes in productivity across undertakings and provided a basis for evaluating the effectiveness with which transport resources were converted into output. This work is relevant to the present study because staff productivity represents an important dimension of resource productivity in SRTUs.

Singh and Venkatesh (2004) Singh and Venkatesh evaluated the technical efficiency of 23 major Indian State Transport Undertakings for 2000–01 using a stochastic frontier production function. They found substantial disparities in technical efficiency, with efficiency scores ranging from 56.15% to 98.99%, and an average efficiency of 84.22%. The study concluded that considerable potential existed for improving productive efficiency.

Singh and Venkatesh (2004) – Depot-Level Productivity and Profitability In their study of depot-level performance in the Maharashtra State Road Transport Corporation, Singh and Venkatesh highlighted the importance of the depot as a crucial operating unit because a substantial proportion of manpower and

financial resources are deployed at this level. The study linked productivity and profitability at the operational level, supporting the need to examine productivity as a contributor to financial performance.

Pucher et al. (2005) Pucher, Korattyswaropam, Mittal and Ittyerah examined the broader public transport situation in India and identified deteriorating bus services, inadequate infrastructure, rising motorisation and financial constraints as major challenges. The study recommended improvements in public transportation services and greater attention to financing and institutional coordination. This provides the broader context within which SRTUs need to improve operational and financial efficiency.

Kumar (2011) Kumar examined the technical efficiency of 31 State Road Transport Undertakings using DEA models and Tobit analysis. The study found that only five undertakings formed the efficient frontier, while the remaining undertakings had scope for reducing inputs. Importantly, staff productivity was found to have a positive relationship with scale efficiency. The findings directly support the importance of staff productivity as an efficiency-related factor.

Ministry of Road Transport & Highways (2011) The Ministry's review of SRTU performance for 2010–11 examined physical and financial indicators of reporting undertakings. The review included indicators such as staff productivity, vehicle productivity, fleet utilisation, revenue and cost. It provides an important benchmark for analysing changes in SRTU performance during the subsequent year.

Prakash, Rajesh and Thilagam (2012) Prakash, Rajesh and Thilagam examined the technical efficiency of 34 SRTUs during 2011–12 using Data Envelopment Analysis. Fleet held, staff strength and fuel efficiency were considered inputs, while passengers carried were considered an output. The study demonstrates the importance of manpower as an input in evaluating the technical efficiency of State Road Transport Undertakings.

Ministry of Road Transport & Highways (2012) The Ministry's review of SRTU performance for 2011–12 provides detailed physical and financial evidence for the present study. It reported that average staff productivity increased from 56.0 to 56.5 km per worker per day. At the same time, total cost increased faster than total revenue, resulting in a higher aggregate loss. The report also identified staff and fuel costs as the two major cost components

Research Gap

The literature indicates that considerable research has been undertaken on the technical efficiency, productive efficiency, economies of scale and financial performance of State Road Transport Undertakings. However, staff productivity has generally been examined as one of several operational inputs rather than as a strategic driver of financial viability.

The present study therefore attempts to bring these two dimensions together by examining the level and trend of staff productivity and considering its relationship with the financial viability of SRTUs using information available up to 31 March 2012.

Objectives of the Study

- To assess the level and trends of staff productivity in State Road Transport Undertakings.
- To examine the relationship between staff productivity and the financial viability of State Road Transport Undertakings.
- To suggest strategic measures for enhancing staff productivity and improving the financial viability of State Road Transport Undertakings.

Research Methodology: The study adopts a descriptive and analytical research design. It examines the staff productivity and financial performance of State Road Transport Undertakings and interprets their implications for financial viability.

Sources of Data: The study is based on secondary data. The principal source is the Review of the Performance of State Road Transport Undertakings: Passenger Services for April 2011–March 2012, published by the Ministry of Road Transport & Highways, Government of India. The report provides physical and financial performance data for reporting SRTUs.

Study Period: The principal period of analysis is: 2010–11 to 2011–12. The final observation date is 31 March 2012. No post-2012 performance data are used in the analysis.

Measurement of Staff Productivity

Staff productivity is measured in terms of the average revenue-earning kilometres performed per worker per day. It indicates the extent to which the available workforce contributes to the transport output of an SRTU. $\text{Staff Productivity} = \text{Revenue-Earning Kilometres} \div \text{Staff Strength}$. The measure is expressed as kilometres per staff per day.

Staff Productivity in State Road Transport Undertakings

Staff productivity is an important indicator of operational efficiency as it reflects the revenue-earning transport output generated by each worker. The Ministry of Road Transport & Highways measures staff productivity in terms of the average revenue-earning kilometres performed per worker per day. During 2011–12, the average staff productivity of the reporting SRTUs increased marginally from **56.0 km per staff per day in 2010–11 to 56.5 km in 2011–12**, indicating a slight improvement in manpower utilisation.

Table 1: Staff Productivity of Reporting SRTUs

Financial Year	Staff Productivity (km/staff/day)	Change
2010–11	56.0	—
2011–12	56.5	+0.5 km
Percentage change	—	+0.89%

The improvement was marginal, indicating that although staff productivity moved in a positive direction, the increase was relatively small.

There was also substantial variation among individual undertakings. In 2011–12, the highest staff productivity was recorded by Tamil Nadu State Transport Corporation (Salem) Ltd. at 131.76 km per worker per day, while Mizoram State Transport recorded the lowest at 3.59 km per worker per day.

Table 2: Highest and Lowest Staff Productivity, 2011–12

Particulars	SRTU	Staff Productivity
Highest	TN STC (Salem) Ltd.	131.76 km/staff/day
Lowest	Mizoram ST	3.59 km/staff/day
Average	Reporting SRTUs	56.50 km/staff/day

The substantial difference between the highest and lowest performers suggests that staff productivity is influenced by several operational factors, including route characteristics, geographical conditions, fleet utilisation, passenger demand and manpower deployment. The existence of such wide differences also indicates that there is scope for benchmarking and learning from better-performing undertakings.

Table 3: Trend in Staff Productivity

Particulars	2010–11	2011–12
Staff productivity	56.0 km	56.5 km
Absolute change	—	0.5 km
Percentage change	—	0.89%
Overall trend	—	Marginal improvement

Source: Ministry of Road Transport & Highways

Staff productivity increased from 56.0 km per staff per day in 2010–11 to 56.5 km in 2011–12. The absolute increase was 0.5 km, representing a 0.89% improvement. Thus, staff productivity showed a marginal upward trend during the study period.

Financial Viability of State Road Transport Undertakings

Financial viability represents the ability of an undertaking to generate adequate revenue to meet its costs and sustain its operations.

The financial performance of the reporting SRTUs during 2011–12 reveals considerable financial pressure.

Table 4: Financial Performance of Reporting SRTUs

Particulars	2010–11	2011–12	Change
Number of reporting SRTUs	37	37	—
Total Revenue	₹31,843.38 crore	₹35,928.73 crore	12.8%
Total Cost	₹37,744.04 crore	₹42,626.33 crore	12.9%
Operating Cost	₹28,412.13 crore	₹31,987.89 crore	12.5%
Net Profit/Loss	–₹5,898.98 crore	–₹6,588.15 crore	11.7%

Source: Ministry of Road Transport & Highways, SRTU Performance Review 2011–12.

Cost Structure

Staff and fuel costs were the major components of total cost.

Cost Component	Percentage of Total Cost, 2011–12
Staff Cost	39.6%
Fuel Cost	30.1%
Staff + Fuel	69.7%

Source: Ministry of Road Transport & Highways.

The financial performance of the 37 reporting SRTUs indicates continued financial pressure during the study period. Total revenue increased from ₹31,843.38 crore in 2010–11 to ₹35,928.73 crore in 2011–12, registering a growth of 12.8%. However, total cost increased slightly faster, from ₹37,744.04 crore to ₹42,626.33 crore, representing a 12.9% increase. Operating cost also increased by 12.5%, from ₹28,412.13 crore to ₹31,987.89 crore. As the growth in total cost marginally exceeded the growth in revenue, the aggregate net loss increased from ₹5,898.98 crore to ₹6,588.15 crore, an increase of 11.7%. Overall, the table indicates that the improvement in revenue was not sufficient to offset the rising cost of operations, resulting in a further deterioration in the financial position of the reporting SRTUs

Findings of the Study

1. Staff productivity improved marginally from 56.0 to 56.5 km per staff per day, an increase of 0.89%.

2. Considerable variation existed among SRTUs, with productivity ranging from 131.76 km in TN STC (Salem) Ltd. to 3.59 km in Mizoram ST, indicating significant scope for better manpower utilisation.
3. Financial viability remained weak, as total cost increased by 12.9% against a 12.8% increase in revenue, resulting in an increase in aggregate loss from ₹5,898.98 crore to ₹6,588.15 crore.
4. Staff cost accounted for 39.6% of total cost, highlighting the importance of effective manpower utilisation for cost management.
5. Staff and fuel costs together constituted 69.7% of total cost, indicating the need for greater operational and cost efficiency.
6. The findings suggest that staff productivity alone cannot ensure financial viability, as improvements in productivity were accompanied by an increase in aggregate losses.
7. The wide variation in staff productivity provides scope for benchmarking and adopting suitable practices from relatively better-performing SRTUs.

Suggestions

- SRTUs should align staff deployment with operational requirements, fleet utilisation, route characteristics and passenger demand to improve manpower utilisation and reduce under-utilisation.
- Appropriate staff productivity benchmarks should be developed based on the nature and operating conditions of different SRTUs rather than applying a uniform standard to all undertakings.
- Scientific scheduling of drivers, conductors and other operational staff should be adopted to minimise idle time and improve the productive utilisation of available manpower.
- Staff deployment should be aligned with buses actually operated and revenue-earning kilometres rather than merely with the size of the owned fleet.
- SRTUs with relatively higher staff productivity should be identified and their effective manpower-management practices should be studied and adapted by other undertakings wherever operational conditions permit.
- Staff productivity should be linked with financial indicators such as personnel cost per kilometre, operating cost per kilometre and revenue per kilometre to assess its contribution to financial viability.

Conclusion

State Road Transport Undertakings play an essential role in India's passenger transport system, but their financial sustainability has remained a persistent challenge. The evidence available up to 31 March 2012 shows that staff productivity improved marginally from 56.0 km per staff per day in 2010–11 to 56.5 km in 2011–12. However, this improvement was accompanied by continued financial pressure, as total revenue increased by 12.8%, while total cost increased by 12.9%, resulting in an increase in the aggregate loss to ₹6,588.15 crore. The study therefore concludes that staff productivity is an important strategic driver of financial viability, but it is not an independent solution to the financial problems of SRTUs. Since staff cost constituted 39.6% of total cost in 2011–12, better utilisation of manpower can make a meaningful contribution to cost efficiency. The appropriate strategy is not simply to reduce the number of employees, but to optimise staff utilisation, increase productive output and align manpower with operational requirements. Improvements in staff productivity should be complemented by better fleet utilisation, fuel efficiency, revenue generation, cost control and appropriate treatment of social-service obligations. Thus, improving staff productivity should be viewed not merely as a human-resource objective, but as an operational strategy for strengthening the financial viability of State Road Transport Undertakings.

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