ABSTRACT

State Transport Undertakings (STUs) in India are beset with the problem of rising costs which are adversely affecting their financial position. In addition, the tariff in respect of passenger fares is controlled by the government and very often, it is claimed, the fares approved by the government are not commensurate with the cost of generating transport service. Consequently, these undertakings are incurring substantial financial losses which have accumulated to sizeable proportions over the past decade or so.

There have been a few studies conducted which go to prove that, in general, the productivity of STUs in India has improved over the past few years. Notwithstanding these productivity improvements, the STUs are incurring losses year after year. And, with the passenger tariff regulated to the disadvantage of these undertakings, STUs are constrained to improve their profitability and generate sufficient internal reserves for their survival and growth. The ritual of performance review is performed with great rigour and ardour in some of the well managed STUs with the objective of improving their performance and hence profitability. The Andhra Pradesh State Road Transport Corporation (APS RTC) is one such undertaking. The performance review system made use of for the aforesaid purpose

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is an extensive one comprising several performance measures or performance indices in respect of which the performance of the operating units and departments is reviewed. While some of these performance measures have a major impact on profitability, the others may affect profitability only marginally. Which are these major performance indices and what is their quantitative impact on profitability? This dissertation is an endeavour at finding an answer to this question and then analysing the factors influencing each of these performance variables. In other words, the primary objective of this research is to develop a quantitative performance monitoring model for a state transport undertaking. The STU selected for purposes of this research is the Andhra Pradesh State Road Transport Corporation (APS RTC), which is presently the second largest state transport undertaking in India.

The secondary objective of the research is to develop an information system which would aid the management of the STU in taking decisions for performance monitoring in respect of those variables that turn out to be significant in the quantitative model.

Data of APS RTC was taken and analysed by deploying multiple regression models of both the linear and non-linear types. Also, variables were tried in their

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original as well as in the composite or combined form. Seven models with different combinations of performance variables were tried. The most suitable model for performance monitoring was determined based on its aptness and results. The variables that determine profitability were found to be occupancy ratio, vehicle utilisation, staff-bus-ratio, vehicles-off-road and fuel efficiency. Hence, a detailed analysis was then undertaken on factors influencing these variables and measures suggested to control performance in respect of these variables.

Finally, a 'decision-information matrix' was developed. This matrix aims at providing the management of the STU with the information required to make the routine and non-routine decisions for monitoring the performance of the undertaking in respect of the aforesaid significant variables.