

An Evaluation of Physical Performance of Himachal Road Transport Corporation (HRTC) in Himachal Pradesh

Vijay Singh

Ph.D. Research Scholar, Department of Public Administration,
Himachal Pradesh University, Shimla

Abstract

Road Transport plays a vital role in the process of economic development of any state. In hilly state it is considered to be the life line of people. In Himachal Pradesh where the other transportation means are negligible, the road transport acquires added significance, which has changed the life of people of the state since its inception. The present paper has made an attempt to analyse the physical performance of Himachal Pradesh Road Transport in Himachal Pradesh. Road transport forms the life-line of the economy in the hilly terrains, like that of Himachal Pradesh. Himachal Road Transport Corporation came into existence on 2nd October 1974 by uniting Mandi-Kullu Transport Corporation and Himachal Government Transport. It is only the way to provide the passenger transport facilities. Himachal Pradesh is a hilly state so there is no other means of passenger transportation. Since its inception, the activities of the Himachal Road Transport Corporation have increased manifold. The corporation is only organization providing passenger transport services barring a few routes, in the states. Himachal Pradesh is a land of plains and sky scraping mountains. Himachal Road Transport Corporation runs its routes from plains to high altitude which is more than 4,725 meters. The hindrances in the operation of Himachal Road Transport Corporation, the roads are too hairpin handed and steep sloping, especially the oldest. The data for the purpose of research is collected from secondary level. The purpose of the study is to evaluate the physical performance of the corporation and to give the valuable suggestions to deal with the deficiencies in the corporation.

Key words: Evaluation, physical, performance, HRTC, Himachal Pradesh

Introduction

The transport being a barometer of social, economic and commercial progress has brought the nations of the world closure to each other. Resultantly the quick exchange of ideas and innovations among the nations has become possibility. Economic and commercial importance of the greatest magnitude is, now-a-days, attached to the development of transport. In fact, the whole structure of industry and commerce rest on the well-laid foundation of transport.

At the time of Independence, Himachal was formed as a "C" class State by merger of 33 hilly States of North-Western Himalayas on 15th April, 1948.

Passenger and goods services were nationalized in the Pradesh in July, 1949. During the year 1958, a Corporation, "Mandi-Kullu Road Transport Corporation" was floated jointly by the Govt. of Punjab, Himachal and Railways under the Road Transport Corporation Act, 1950 basically to operate on the joint routes in the States of Punjab and Himachal. With the re-organization of Punjab State in 1966, few hilly areas of Punjab were merged in Himachal and operational areas of Mandi-Kullu Road Transport Corporation came entirely in the expanded State of Himachal. On 02.10.1974, Himachal Govt. Transport was merged with Mandi-Kullu Road Transport Corporation and was renamed what even today is known as Himachal Road Transport Corporation. After the formation of Himachal on 15th July, 1948 the network of roads had received top-most priority of the Government. At present the road network is widely spread in Himachal. In 1974 total routes operated by HRTC were 379 which have grown to 2119 in March 2010 and the fleet strength has grown from 733 to 2005 in March 2010. Bus remains the sole mode of passenger transportation in the state as railways have a negligible presence in the State. The narrow gauge lines connecting Pathankot with Joginder nagar and Kalka with Shimla are so slow moving that a very small percentage of traffic is carried by them at present; thereby leaving the onus of carrying the passenger traffic on to bus transport.

Physical Performance of HRTC

Physical Performance of HRTC productivity measurement is important primarily because it provides invaluable feedback on the performance of an organization. The information thus provided can be used to enhance productivity. Furthermore, the recent interest in productivity bargaining means that measuring productivity is becoming a greater priority. Without productivity measures or indicators, it is impossible to evaluate whether workplace initiatives have increased organizations productivity. Analysis of Himachal Road Transport Corporation in terms of its performance to evaluate productivity cannot correctly be made on the basis of its financial performance because the very objective of establishing Himachal Road Transport Corporation comes in conflict with the objective of attaining profitability as social objectives have overriding effect on the financial performance of the corporation. This approach is termed as partial productivity analysis for simple reason that the productivity estimates are not made in totality but are narrowed down to more important variables.

Need of the Study

The need to study about the Himachal Road Transport Corporation arises because it is one of the important state level public undertakings. Without which the economic activities within the state will stand still. It is the most vital component

of the state economy. Himachal being a hilly terrain, where the roads are continually climbing and descending has no other mode of mechanized transport such as railways, airways and waterway or which are almost negligible in the Pradesh Himachal exhibits critical dependence on Road Transport for economic, social, Industrial growth. Road connect the production are as with the market centres, supply of essential commodities, marketing of horticultural potential at remotes areas whatever for tourism and hydroelectricity power potential. Moreover, the Himachal is a industrially backward state, operation and maintenance of well geared transport machinery becomes prerequisites of industrial growth and economic prosperity.

Fleet Strength in HRTC

To provide better services to the public the required fleet strength is very important. With the required fleet strength it becomes very tough to provide smooth services to the public in the state. The main aim of Himachal Pradesh Road Transport Corporation is to provide the better services to the people of the state by way of plying buses in the remotest parts of the state as Himachal is a hilly state, to meet the Traffic requirement of the people. The fleet of the corporation is 2179 as on 31.3.2014. At the time of composition of the corporation in 1974-75, it was only 898. After ten years i.e., in 1984-85 the fleet strength of the corporation was 1300. To sum up the day to day work of the corporation, various staff is required as per requirements.

Table 1 : Year Wise Detail of Fleet Strength in HRTC

Years	Buses	Under Management Buses	Other Buses	Total Vehicles
2009-10	2005	21	58	2084
2010-11	1979	17	97	2093
2011-12	2024	-	93	2117
2012-13	2076	-	80	2156
2013-14	2096	-	83	2179

Source: Directorate of Himachal Road Transport Corporation Shimla.

The data in the table number 1 reveals that there is an increase in the fleet strength every year. In 2009-10 the fleet strength was 2084 and in 2013-14 it increases to 2179. This shows that the corporation is increasing the fleet strength according to the increase in population and public demand.

Fleet Utilization and Occupancy

Fleet utilization is the ratio of the number of vehicles on road to the total vehicles held by the organization. Fleet utilization is always expressed in terms of percentage and it is a measure of productivity of engineering department. It

indicates how many of the total vehicles held are actually utilized for operations. Higher the fleet utilization, higher would be the operational efficiency, which leads to higher revenues accruing to the corporation, and increase in fleet utilization is a prime indicator of productivity improvement. Fleet utilization implies road worthiness of existing fleet strength. It indicates how many of the total vehicles held are actually utilized for operations. The occupancy ratio is the most important statistical indicator pertaining to the adequacy of other wise of the services offered to the public. A very low ratio may indicates the need for either reducing of trips or change of timing while a very high ratio may indict either overloading or non-availability of seats at intermediate points, and the need to augment the services. Occupancy ratio is also a function of factors extraneous to the internal operations of any organization such as social obligations of the organization, density of population, cropping season weather, etc. which all affect the demand pattern of bus services in the state.

Table 2 : Daily Fleet Utilization in HRTC

Year	Daily Use of Buses (Km)	Occupancy
2009-10	221	56
2010-11	223	55
2011-12	222	57
2012-13	215	58
2013-14	219	57

Source: - Data compiled from the Annual Reports of HRTC of various years.

Fleet utilization helps to understand the number of vehicles actually plying on the road as compared to the total number of vehicles held by the corporation. This parameter is computed to find out the kilometres covered by per vehicle in a particular year. The data analyzed thus, reflects a high order of vehicle utilization and also indicates overall fluctuation in utilization. The fleet utilization of HRTC varies between the ranges of 219 to 223. The occupancy in the HRTC buses is not satisfactory. It varies from 55 to 58. Due to the less number in occupancy in the HRTC buses the corporation is bearing lose day by day.

Distance Travelled by HRTC Buses

The distance travelled by the HRTC buses shows that how much the corporation is providing the services to the public. The detail of the distance covered by the buses in the table number 3 below:

Table 3 : Year Wise Distance Travelled by HRTC Buses

Detail	2009-10	2010-11	2011-12	2012-13
Lakh kms travelled by the buses	1654.82	1683.19	1654.17	1665.03
Without income distance travelled by the buses (lakh kms)	40.99	42.79	38.23	36.98
Percentage of the total dead distance travelled	1.62	1.67	1.59	1.56
Daily average distance covered by the buses (lakh kms)	4.53	4.62	4.52	4.56
Daily average use of the buses plying on the road (kms)	226	227	222	215

Source: Data compiled from the Head Office of the HRTC Shimla.

The data in the above table shows that there is a little increase in the distance travelled in the year 2012-13 as compare to 2011-12. The HRTC buses are also travelling a big distance of without income, which causes lose in the corporation. The percentage of total dead distance travelled is decreases as compare to the last year. Daily average distance covered by the buses is also increases as compare to 2011-12. The daily average use of the buses plying on the road is also decreases.

Breakdowns Ratio

A breakdown is defined as stoppage of vehicle on road due to mechanical defects or other failures rendering the vehicle immobile or unfit for continuation of the revenue-earning trip without attention to it, irrespective of the time involved. Mechanical failure is the stoppage of vehicle on road due to mechanical defects rendering the vehicle immobile, irrespective of time involved. All breakdowns due to non-mechanical cause like fuel shortage, engine oil shortage, tyre puncture or burst, etc. rendering the vehicle immobile, irrespective of the time involved fall in the category of other failures. In case a vehicle is repaired during the halting time at a place en-route or between two trips in a schedule and repaired with the interval it is not considered as a breakdown, provided the scheduled halting time or interval time is not exceeded.

Rate of breakdown is the relative measure of the incidence of breakdown. The following are three different rates:

(a) Rate per 10,000

$$\text{Effective kilometres} = \frac{\text{Total Number of Breakdowns}}{\text{Total Effective Kilometers}} \times 100$$

(b) Rate per vehicle

$$\text{on road} = \frac{\text{Total Number of Breakdowns}}{\text{Avg. no. of vehicle on road}}$$

(c) Kilometres per

$$\text{Breakdowns} = \frac{\text{Total Effective Kilometers}}{\text{Total Number of Breakdowns}}$$

The Rate of breakdowns worked out for HRTC on the basis of breakdowns per 10,000 effective kilometres are shown in table below:

Table 4 : Incidence of Breakdown in HRTC

Year	Number of Breakdown	Distance travelled (Lakh km)	Rate of Breakdowns in per 10000 km
2008-09	2649	1663.23	0.16
2009-10	2653	1665.04	0.16
2010-11	2441	1665.73	0.14
2011-12	2656	1654.17	0.16
2012-13	2656	1665.03	0.16

Source: - Compiled from the Annual Report of the relevant years of HRTC.

The data in the above table reveals that in the study period the number of breakdowns has been increased except in the year 2010-11. Increase in the breakdowns also one of the reason for loss in HRTC. There is not much difference in distance travelled by the buses. It vary from 1665.23 to 1665.73 which shows a little difference.

Consumption of Fuel in HRTC

Fuel is an important input of variable costs of HRTC and all efforts are made by any organization to minimize its fuel needs and therefore, a check on the trends of fuel consumption is imperative. Only marginal success is noticed in this regard by HRTC. This is one area where more concerted efforts are required to raise the fuel efficiency. However, none of the organizations with which HRTC has been compared for the purpose show any remarkable improvement in the rate of fuel consumption. The fuel consumption is a very important determinant of enhanced capital productivity of an undertaking running mechanical services like bus transport, as it is an essential part of the cost of materials. Fuel used for running the buses is diesel and no other form of fuel for buses is being used.

Table 5 : Average Fuel Consumption in HRTC

Year	Fuel consumption of HRTC km/litre	Index No. of Fuel Consumption-100
2009-10	3.66	99.72
2010-11	3.65	99.45
2011-12	3.61	98.36
2012-13	3.59	98.33

Source: - Compiled from the Head Office of HRTC Shimla.

The data in the above table shows marginal increase in fuel efficiency, which shows an improvement of an average fuel consumption of km/litre 3.66 in the year 2009-10 to 3.59 in the year 2012-13. Fuel consumption is a function of many factors among which efficiency of bus engines, road conditions, driving habits and quality for fuel are important. Of these variables, efficiency of bus engines and driving techniques are internal factors are extraneous and HRTC has to accept them as such.

Engines used in the Buses in HRTC

The engines used in the buses also responsible for the fuel efficiency. The improvement of an average and fuel consumption also depends on the quality and condition of the engines. Himachal Pradesh is a hilly state. The geographical condition of the state is not good. The condition of the roads in the state is also not good. In such conditions there is a big damage in spare parts of the buses which includes engine also.

Table 6 : the Detail of the Engines Used and Replaced in HRTC buses

Year	Number of changed engines	Average age lakh kilometres	Number of over hall engines	Average age lakh kilometres
2009-10	75	5.88	130	1.27
2010-11	73	5.60	125	1.90
2011-12	82	7.02	122	2.60
2012-13	78	5.38	96	1.91

Source: Compiled from the Head Office of the HRTC Shimla.

The data in the table number 6 reveals that there is a marginal change in the number of engine changed in relevant years. The average age of the change engines also show marginal change. It was 5.88 lakh kilometres in the year 2009-10 and with a big increase it was 7.02 lakh kilometres in the year 2011-12. But is falls up to 5.38 in the year 2012-13. The number of over hall engines was 130 in the year 2009-10 and fall up to 96 in the year 2012-13. The average age of the over hall engines was 1.27 lakh kilometres in 2009-10 and was increased to 2.60 in the year 2011-12. The average age of the over hall engines falls up to 1.91 lakh kilometres from 2.60 lakh kilometres.

Consumption of Tyres in HRTC

Tyres also are a major part of running expenses for a passenger road transport organization. In this area HRTC has done laudable efforts reflecting positive trend. But at the same time, the tyre consumption ratio is still for behind undertakings and it may be suggested that methods to raise the tyre life and its mileage be more closely observed to identify the areas and aspects for raising kilometres run per tyre consumed.

Table 7 : Detail of the Consumption of Tyres in HRTC

Period	Average per tyre distance travelled (kms, new tyres)	No. of tyres	Average per tyre distance travelled (kms, retread)	Number of retread tyres	per tyre distance travelled (kms)
2010-11	22714	11327	17552	48312	93241
2011-12	23165	11339	17447	50939	94190
2012-13	25340	11471	18892	48362	102080

Source: Compiled from Head Office of the HRTC Shimla.

The data in the above table shows an increase in the average per tyre distance travelled by the new tyre. It was 22714 kilometres in the year 2010-11 and 25340 kilometres in the year 2012-13. It shows an increase of 2626 kilometres. There is also a marginal change in the number of new tyres. It was 11327 in the year 2010-11 and was 11471 in the year 2012-13. The corporation retreaded the tyres time to time. The total distance travelled by a tyre was 93241 in the year 2010-11 and shows a big increase up to 102080 in the year 2012-13.

Problems in Physical Performance of HRTC

- The fleet strength of HRTC is very less as compare to private operators.
- Lack of modern tool, techniques and training is a big problem in HRTC.
- Low occupancy ratio is also creating a problem to the corporation.
- Bad conditions of the buses of HRTC as compare to private buses.
- The problem of breakdowns due to mechanical faults and other reasons.
- More consumption of fuel, tyres and spare parts is creating a problem to increasing its physical performance.

Suggestions to improve the Physical Performance of HRTC

- There should be continuous use of fleet. To stand the fleet creates physical and financial lose for the corporation.
- The vehicle should be well conditioned and well maintained. The conditions of the HRTC buses are not good therefore the public prefers to travel in private buses.
- Due to the hilly and bad condition of the roads in Himachal Pradesh the spare parts of the vehicles damaged soon. So it is very important to use the genuine and pre tested spare parts in the vehicles.
- The engines should be repaired and replaced time to time. It improves the fuel efficiency in the corporation.
- Reduce the frequency of buses in less populous and less demanded areas. Due to high frequency of buses in these are the occupancy decreases. Provide more

route permits to the private transporters is also one of the reasons to decrease in occupancy. It causes financial loss for the corporation.

- Increase the frequency of buses in highly populated areas and ply more buses at office time. It generates extra revenue for the corporation.
- Make sure the decrease in breakdowns. Before plying the bus on road make sure the mechanical check-up of the buses to reduce the breakdown of the buses.
- Provide the rewards and to the employees of the corporation for their good performance in respective fields.
- Provide the modern training and refresher course to the employees of the corporation to improve their efficiency and effectiveness.
- Call the suggestions from the employees and the general public to improve the physical performance of the corporation and implement the important and valuable suggestions from them.

Conclusion

Due to being the only mean of transportation in Himachal Pradesh the importance of the Himachal Road Transport Corporation cannot be denied. The corporation is providing transportation facilities in urban as well as rural areas of the state. But the overall condition of the corporation is not good. The corporation is facing different crises. Financial condition of the corporation is very poor. There are also crises of modern tools and techniques. The man power of the corporation is also not satisfactory. Besides these crises the corporation is playing an important role with available resources. To improve the physical performance of the corporation it is also the duty of the state government to make profitable policies for the corporation because other means of transportation in the state are negligible. Even the corporation is managing the crises on its own level but the results are not so good. The poor condition of the roads in the state is a big problem to improve the physical performance of the corporation. With the analyses of services being provided to the public the overall performance of the Himachal Road Transport Corporation is very good.

References

- Bhatnagar K.P. & Other (1961), *Transport in Modern India*, Kishore Publishing House, Kanpur.
- Gill P.P.S. and Rana Kundan Singh, *Management of State Transport Undertaking. A case study of HRTC*, Dissertation submitted to the HPU by Public-Administration Department Himachal Pradesh University Shimla.
- Kallanparampil B.V. & Manchanda S.P. (1979), *Road Transport Management system and Procedures*, Himalaya Publication House, Bombay.

- Lane R., Poweel T.J. & Smith P.P. (1971), *Analytical Transport Planning*, Gerald Duckworth and Co. Ltd. London.
- Mahajan, Sanjeev, K. (1998), *Performance of Public Undertakings in India, A case study* Devika Publicaiton Delhi.
- Pandey N.P. (1986), *Geography of Transportation*, Inder-India Publications D-17, Raja Garden Extn., New Delhi.
- Paul Rednayne M.A. & Murray Johan (1958), *Transport by Land*, Albemarle street, W. London.
- Ramaswami K.S. (1958), *Transport in India*, Amudha Nilayam Pvt. Ltd. Madras.
- Shah K.T. (1923), *Trade, Tariffs & Transport in India*, National Book Depot, Bombay.
- Srivastava S.K. (1964), *Transport Development in India*, Chand S. & Co., New Delhi.



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