DOI: 10.20472/IAC.2017.032.023

PAWAN KUMAR

SANT LONGOWAL INSTITUTE OF ENGINEERING AND TECHNOLOGY, India

ROLE AND EFFECTIVENESS OF STATE TRANSPORT: AN ANALYSIS OF PEPSU ROAD TRANSPORT CORPORATION (P.R.T.C) PUNJAB. (INDIA).

Abstract:

Road transport plays a key role in socio- economic development. Most suitable for short and medium distances, it offers a number of advantages such as flexibility, reliability, speed and door to door service. Over the years, share of transport in overall traffic handling has been continuously increasing on the one hand and on the other especially public passenger transport is bearing losses year after year. The present paper is an attempt to find out the reasons of loss making of Pepsu road transport corporation (P.R.T.C) in Punjab. And it has been observed that due to government policies and lethargic attitude of some staff members this is corporation is bearing loss year after year and becoming liability on the government.

Keywords:

Passenger Road Transport, polices, pros cons.

JEL Classification: A12

Introduction

Transport sector in India acts like a back-bone of the country's economy and can be describe as a two-way relationship with industries and confront a back – breaking assignment of transportability demand for both freight as well as passenger by contributing 6.70 percent share of GDP (IMF report). India is a vast country rather a sub- continent. Its area is equal in extent to the whole of Europe without Russia. It is cut off from the rest of Asia by the high wall of the Himalayas. The diversity of Indian history is the outcome of its natural physical division. The vast area of the country and of suitable communication was great handicaps in the way of political unification of the country.

Existing transport system prevailing in the country comprises several modes of transport including rail, road, coastal shipping, air transport, etc. transport has recorded a substantial growth over the years both in network and output of the system. Road transport forms indispensable elements of the national transportation system. Over the years, share of road transport in overall traffic handling has been continuously increasing. There has been a substantial shift from rail to road. Capacity constraints on railways and advantages of road transport combined with expansion of road network have contributed to the increase in the number of motor vehicles in the country, which is already continuously increasing. From just 34000 buses in 1950-51, it has touched 1,91,73,168 in 1990-91.

Growth of Transport System since 1951

Rail and road transport systems dominate which carries a lot of burden of the public in terms of passenger and lifting of goods from one platform to another. Due to topography of the country other forms of transport were also considered important within their specialised areas considering the size and its geographical features of the country. The details are shown in table. No.1

Sr. No	Mode of transpor t		1950-51	1970-71	2005-06	2011-12
1	Railway s	Route length (000 km) Freight Traffic originating (million tonnes)	53,600 93	59,800 196	63,300 680	64,460 926
2	Roads	Total length (000 km) Surfaced No. of goods vehicles (000)	400 160 82	915 400 343	2483 1420 3488	4690 2524 -
3		Overseas shipping (million tonnes GRT)	0.2	2.2	7.0	11.03

 Table-1: (Growth of the Transport System)

ſ		Shippin	traffic in m. tonnes	19	-	424	-
	4	g Ports	Number of	-	179	734	1434
			passengers(lakhs)				
		Civil					
		Aviation					

Source: Datt, Ruddar. Sundharam, K.P.M., 2009. Indian Economy. New Delhi, S.Chand Publications., pp-133.

It is clear from Table no.1 that the transport sector had recorded a substantial growth since the introduction of economic planning during the year 1950-51. Railways having its track 53600 kms which increase to 59800 kms in 1970-71 and 63,300 kms during in the year 2005-06 and also increased by 1.8 percent that is 64460 km in year 2011-12 and recorded a growth of 36.18 percent in freight originating tonnage, though the growth in route length was indeed low. The road network has expanded at an annual rate of 5 per cent while road transport fleet has increased by 7 percent per annum in respect of goods vehicles. About 70 per cent of the Indian villages have been connected by a network of rural roads and over 40 per cent of our villages are served by all weather roads. Shipping tonnage has been increasing by an impressive increase by 11 per cent while coastal shipping could register only a meagre rise of 1.4 per cent. Domestic airlines passenger traffic has risen smartly by 10.5 per cent per annum. The traffic handled by major ports has increased from 19 million tonnes to 424 million tonnes between 1951 and 2006. Due to uneven allocation and physical feature different states improved their road networks. The details are shown in table. No.2.

States/UTs	2011(in kms)	Share in percent
Andhra Pradesh	238,001	6.27
Arunachal Pradesh	21,555	0.57
Assam	241,789	6.38
Bihar	130,642	3.44
Chhattisgarh	93,965	2.48
Goa	10,627	0.28
Gujarat	156,188	4.12
Haryana	41,729	1.10
Himachal Pradesh	47,963	1.26
Jammu & Kashmir	26,980	0.71
Jharkhand	23,903	0.63
Karnataka	281,773	7.43
Kerala	201,220	5.30
Madhya Pradesh	197,293	5.20
Maharashtra	410,521	10.83
Manipur	19,133	0.50
Meghalaya	11,984	0.31
Mizoram	9,810	0.25

 Table 2: (Total Length of roads in India as on 31st March 2011)

Nagaland	34,146	0.90
Odisha	258,836	6.83
Punjab	84,193	2.22
Rajasthan	241,318	6.36
Sikkim	4,630	0.12
Tamil Nadu	192,339	5.07
Tripura	33,772	0.89
Uttarakhand	49,277	1.30
Uttar Pradesh	390,256	10.29
West Bengal	299,209	7.89
UNION TERRITORIES		
An	1,386	0.03
Chandigarh	2,284	0.06
Dadra & Nagar Haveli	808	0.02
Daman & Diu	236	0.006
Delhi	29,648	0.78
Lakshadweep	190	0.005
Puducherry	2,740	0.07
ALL INDIA	3,790,344	100

Totals may not add up because of rounding off of decimals. Source: Basic Road Statistic of India, MoRTH 2012

Table 2 shows that road network of all states and union territories in India differ as per topography of the states. Maharashtra and Uttar Pradesh has biggest road length with the maximum share of 10.83 and 10.29 respectively. Whereas in northern regions Himachal has 0.71 percent, Haryana 1.10 and Punjab having 2.22 percent share of road connectivity at the national level and occupies 22nd rank among all the states and union territories.

Expeditious growth in population and economic development create the exponential demand of passenger and freight transport services. The transport sector in Punjab is dominated by road transport followed by railways.

Years	R	Rail		Road		
	TRAFFIC (BPKM)	PERCENT SHARE	TRAFFIC (BPKM)	PERCENT SHARE	TOTALTRAFFIC (BPKM)	
1950-51	67	68	31	32	98	
1970-71	118	36	210	64	328	
1990-91	296	22	1671	78	1363	
2006-07	695	13	4657	87	5352	
2011-12	1047	10	9329	90	10375	
2016-17	1509	8	17272	92	18780	
2021-22	2300	6	35043	94	37343	
2026-27	3595	4	74079	96	77675	
2031-32	5765	3	163109	97	168875	

Table 3 (Share of Railways and road transport in total traffic.)

Source: Trends in Growth and Development of Transport (NTDPC Research 2013).

Due rapidly growing population, increasing and state transport is not sufficient to complete the demand. In Punjab between interstate and intercity transport service roadways is the only mean of transport that is not adequate.

Punjab is an agrarian state and its economy is dominated by agriculture sector where as industry occupies secondary position limited to a number of big cities. Operations of buses become problematic due to road transport being a state subject. After independence Indian planners gave high priority to the efficient and well developed system of transport. The transport and communications is vital to the success of economic development which laid stress on rapid industrialization. The allocation on the transport sector remained quite high during the first three plans, ranging, between 25 and 28 percent. After that the allocations in the next successive plans on the transport sector declined gradually. During the eighth plan it was only 13 per cent of the total outlay. According to National Transport Development Committee on an average total passenger traffic is expected to grow about 15 percent per annum to reach 168,875 bpkm in 2031-32 from 10,375 bpkm in 2011-12.

Road connectivity has long been a priority for the state government aithough availability of roads is not a great issue as road density in Punjab at state level is 1.86 km much more than the national average of 1.21 km per sq. Km in Punjab. There are rapid increase in the registered motor vehicles continuously due to that capacity issues faced by road network.

Yea r	Buse s	Cars & station wagon	Jeep s	Taxie s	Three wheeler s	Two wheeler s	Four wheeler s above truck and lories	Tracto r	other	Total motor vehicle s
201 0	2714 6	48667 0	5479 8	1323 1	57879	395627 9	149367	49851 7	1018 1	525406 8

 Table 4 (Vehicle population in Punjab)

Source: Punjab state Road Safety policy 2014.

Between 1980-81 and 2011-12, the total number of registered motor vehicles has increased from 0.3 to 6.3 million. The volume of passenger vehicles on the road of Punjab have increased by nearly 25 times, with maximum increase in two wheelers (27 times), three heelers (23 times) and cars (2 times) (TERI, 2015). Personalised modes of transport has shown a rapidly increasingly share and due that society will face numerous problems **s**uch as congestion, pollution and accidents etc. so a need is arises to control the growth of personal vehicles by adopting strategies of public transport.

In Punjab there are two organization of public transport to meet the travel demand is Punjab Roadways and PEPSU Road Transport Corporation (PRTC). Punjab Roadways is also a state run transport organization providing bus operations in Punjab started in 1948 with a small fleet of only 13 buses, but in 1985 achieve its highest fleet size 2407 buses post which decreased over time.

In 1995 fully owned another government company Punjab State Bus Stand Management Company Ltd. (PUNBUS) was also incorporated to maintain upgrade and control the bus stands in the state and also help purchase new buses for intercity operations by way of bank loans. Over the years, along with Punjab Roadways PUNBUS also provide economical and reliable means of passenger transport within the state of Punjab.

PEPSU Road Transport Corporation (PRTC) was initially created in 16th of October, 1956 under the provision of the Road Transport Corporations Act, 1950 with a meagre investment Rs. 25 lacs and with fleet of 60 buses were covering 11,107 daily scheduled kilometres on 15 routes with 345 employees with a view to provide efficient, adequate, economic and properly co-ordinated operation system of road Transport services in the state. In 1966 when the state boundaries are redefining the services of Patiala and East Punjab States Union (PEPSU) is being limited to Punjab and interstate routes in which include Haryana, Rajasthan, Uttaranchal, Delhi, Himachal Pradesh, Uttar Pradesh and union territory of Chandigarh.

In Patiala during 1956 total number of fleet of buses were 342 and with the passage of time fleet of buses increased to 940 in 1964 and 2508 in the year 2015 respectively. But the roads were not increased in proportion to the population of the state with respect number of vehicles.

Year 🗗	⇒ 1956	1964	1980	2013	2015
Fleet size in Patiala	342	940	930	1089	2508

Table 5	(Growth	of buses	in P.R.T.C.	Patiala.)
---------	---------	----------	-------------	-----------

Source: V.S. Mahajan, Transport Planning, Policy and Development.

In the last few decades the total fleet size of PRTC had performed a very little increment that is from 930 in 1980-81 to 1089 in 2013 (0.5 per cent) an extremely low growth. At present, the PRTC had 811 owned and 104 KM scheme ordinary buses, 12 integral coaches under KM scheme and 26 own HVAC buses, being operated on 577 routes (including inter-state routes) by covering a daily mileage of 355827 kilometres. It has 1310 Regular employees, 1755 through outsourcing, total 3065 employees as on 30.04.2016. There are 9 depots of the Corporation located at Patiala, Bhatinda, Kapurthala, Barnala, Sangrur, Budhlada, Faridkot, Ludhiana, and Chandigarh.

On an average each bus in the state covers 249 km and overall all the buses cover 16,43,150 km of the transport 12.75 lakh passengers travels daily. Out of 5.6 crore passenger trip bus based public transport, the state government caters only 2 percent of total passenger trips in Punjab. According to MoRTH 2011, for intercity bus transport

services, Punjab has about 64 buses per 10 lakh population which is lower than the national average of 101 buses per 10 lakh population (TERI, 2015).

The head office of the corporation is situated at Patiala. The PRTC provides services not only on intercity routes but also links the remote villages with nearby towns and cities. Being state undertaking PRTC also extending free/ concessional travel facilities to various categories of commuters as per the instructions of the state government from time to time. The details of facilities provided by the PRTC have been shown in Table no.6.

Sr. No.	Category Name	Concessional Travel facility
1	Blind person	Free
2	Child (3-12 years)	Half concession
3	Handicapped persons with 40 percent and above disability	Half concession
4	MLA/MP's	Free
5	Police personnel from the rank of constable to inspector	Free in Punjab state and as well as on interstate routes (police tickets)
6	Jail wardens (from the rank of Head warden to Asstt. Supdt. jail)	Free (police tickets)
7	Students (from 1st class to 10 th class)	Free
8	Colleges students, ITIs, Medical colleges etc. school and technical education	At concessional rates
9	Freedom fighters and their attendant	Free
10	Wives of freedom fighters along with one attendant	Free
11	Press reporters (Accredited press correspondents)	Free against the payment made by the DPR, Pb. Chd.
12	Commercial luggage	Half ticket upto 40 kg Full ticket for 41 to 80 kg
13	Ex-MLAs Ex-MPs, Ex-MLCs and their wives	Free
14	60 years old women / aged women	Half concession
15	Patients of Thelasamic with one attendant	Free
16	Terrorists victims ladied/ widows	Free
17	Patients of cancer along with one attendant	Free (Tickets)
18	Employees of the civil Sectt. (Pb. Civil Sectt. At Chd.) from different sectors to Sectt.	Concessional rates

Table 6

Source: Official record from (www.pepsurtc.gov.in/Concessional.htm)

Review literature

Shashi (1986) in her study "A Study into the Organizational and Administrative Aspects of Working of Road (Passenger) Transport in Punjab with Special Reference to Pepsu Road Transport Corporation" examined the overall efficiency of this

undertaking such as administrative policies, operational and financial performance and found that Pepsu road transport was not in good position to facilitate. She observed that organization is suffering from many problems like inadequate training, weak industrial relations, poor physical and profitability performance, high corruption, leakage of revenue. To overcome these problems state government should reimburse the cost of travel concessions and she suggested that productivity should be based on incentive scheme.

Chand (1975) in his study "Nationalized Road Passenger Transport in India with Special Reference to Punjab, Haryana and Himachal Pradesh" he argued about the impact of nationalization of private road passenger transport and assessed various indicators to investigate the efficiency as physical efficiency, profitability and overall performance of the organization through productivity, management and satisfaction of passenger. He stated that poor performance of PRTC is due to lack of infrastructure like pitiable roads.

Rahi (1977) in his research "Performance of Public and Private Transport Undertakings (A Case Study of Punjab Roadways and Ambala Syndicate Pvt. Ltd.)" Investigated the comparative efficiency of Ambala bus syndicate Pvt. Ltd. and Punjab roadways on the basis of profitability and managerial efficiency evaluated through productivity, total effective km, rate of return on capital invested, traffic services provided, aggregate capital invested.

Kumar (1998) in his study, "organizational conflict in Pepsu road Transport Corporation" examined the nature and pattern of organizational conflict as between management and employees and also explored various types of conflicts that occurs in PRTC and observed effect of complex relationship in PRTC. He emphasized that there is lack of sound personnel policy and suggested some machinery of conflict resolution.

Modi (1993) in his work, "Trade Unionism in Punjab: A Case Study of PRTC analyzed the attitude of workers, trade union leaders and management personnel towards unionism. He recommended that management should recognize a single bargaining agent and Workers participation should be encouraged.

Singh (1991) in his work, "Material Management in Punjab Roadways" made a comprehensive view on material management to analyze the effectiveness of process to manage the material in transport and found that the reason of low productivity is due to lack of equipment in workshop and poor inventory control. He suggested that there should be suitable methods for improving the management of materials.

Joshi (1990) in his study, "A critical study of working capital management in PRTC, Patiala" has observed that the level of risk and liquidity through the working capital management in terms of cash management, inventories and receivables and solvency ratio is not satisfactory.

George (1993) in his research, "performance of Public Road Transport System: A case study of the Kerala State Road Transport Corporation" examined the origin and growth of passenger road transport in Kerala and overall performance of KSRTC at

micro and macro level. At macro level he evaluated the physical performance in terms of fleet utilization, age profile of fleet, incidence of breakdown and accidents, bus staff ratio, vehicle utilization, passenger carried, and financial evaluation on the basis of profitability. At micro level he evaluated the performance in three divisions as south zone, central zone and north zone and found that the overall efficiency of KSRTC was unsatisfactory.

Objectives of the study:

- 1. To find out the growth and financial position of PEPSU Road Transport Corporation.
- 2. To suggest the remedial measures to overcome the losses.

Research Methodology:

The present study is on State road transport of Punjab. Punjab is recognised as most prosperous state and achieves rapid economic development since independence in 1947. Punjab is located in the northwest of India surrounded by Pakistan on the west, the Indian state of Jammu and Kashmir on the north, Himachal Pradesh on its northeast and Haryana and Rajasthan to its south and the literacy rate of the Punjab is 75.84 percent as per 2011 census.

Table 7 (Area and Population of Punjab state)

Area and Population	Punjab state	
Area (in square kilo meter)	50,362	
Rural Population	1,73,16,800 (62.51)	
Urban Population	1,03,87,436 (37.49)	
Total Population	2,77,04,236 (100)	

Source: Statistical Abstract of Punjab (2012)

Note: Figures in parentheses indicate percentages of total population.

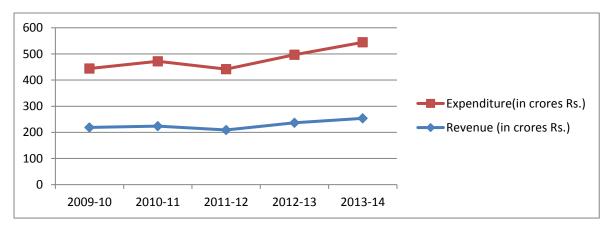
The population of the state was 2, 77, 04,236 out of which 2, 43, 58, 999 (62.51 percent) people were living in rural area and 37.49 percent in urban area respectively. In the state a number of facilities are being provided by the PRTC to facilitate the passengers in the state. The present paper is based on secondary data. The secondary data has been collected from various sources such as books, published journals, periodicals, and departmental reports and had been analyzed in percentages.. The details are given in the following table.

Table 8 (Profit / loss of PRTC)

Year	Revenue in Rs.	Positio n of revenu e in percent	Expenditure in Rs.	Positio n of expendi ture in percent	Total positio n	Percent Increme nt /decreme nt in total loss
2009-10	2,19,21,14,93 1	-	2,25,18,18,69 2	-	(-)	-
2010-11	2,24,07,01,22 7	+2%	2,47,99,53,04 6	+10%	(-)	+300
2011-12	2,09,13,54,48 5	-6%	2,32,62,06,85 0	-6%	(-)	-1.8
2012-13	2,36,51,49,97 6	+13%	2,60,67,99,99 2	+12%	(-)	+2.8
2013-14	2,53,54,14,11 8	+7%	2,90,86,57,08 7	+12%	(-)	-54.4

Source: Annual reports of Pepsu Road Transport Corporation.





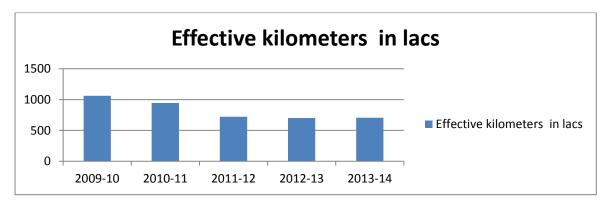
Data in Table 5 reveals that corporation generated revenue to the tune of Rs 2,19,21,14,931 and incurred expenditure Rs 2,25,18,18,692 during the year 2009-2010 . In the year 2010-11 the revenue of the corporation increased to Rs 2,24,07,01,227 and expenditure incurred Rs 2,47,99,53,046 . Whereas during the year 2013-14 the revenue generated by the corporation was Rs 2,53,54,14,118 and expenditure was Rs 2,90,86,57,087. Due to number of factors this corporation is bore losses year after year which shows an alarming sign. As regards the road connectivity is concerned it was covered 1061.78 lacs kms in the year 2009-10 which

year	Kilometres in lacs
2009-10	1061.78
2010-11	945.36

2011-12	721.55
2012-13	701.21
2013-14	704.65

Source: Annual reports of Pepsu Road Transport Corporation.

Graph 2:



decreased to 945.36 during the year 2010-11, further decreased to 701.21 in the year 2012-13 with a small increase 704.65 during the year 2013-14 respectively. Which shows decreasing trend. Keeping in the population pressure and promoting public transport services in cities the state government had bought 200 and 150 new buses of various capacities under JnNURM(Jawaharlal Nehru National Urban Renewal Mission) in five cities namely Ludhiana, Amritsar, Bhatinda, Jallandhar and patiala. It is pertinent to mention here that only 125 buses in Ludhiana and 40 buses in Amritsar are being operated; the rest were standing at the depots.

Suggestions:

1. Keeping in mind the financial health of PEPSU it is suggested that pass facility should be restricted to those who cannot afford transport charges and the facility should be withdrawn from well off people.

2. The transport authority should monitor the proper authentication of the bus timings so that any illegal bus may not ply on the same time and occupancy of the passengers may be increased to a great extent.

3. The transport authority should give managerial and behavioural inputs to the drivers and conductors of the buses so that they may take more pain to attract the passenger to sit in their buses.

4. The PEPSU buses are not neat and clean .Their cleanliness be maintained properly and one cell be opened in all depot of the PEPSU which may monitor the maintenance and cleanliness of the buses.

5. The PEPSU authority should make uniform policy relating to design of the buses. Some time if small parts to be replaced may be from the condemned buses. And lot of money can be saved and the same amount can be utilised for some other purpose.

Conclusion

Transport assumes a greater role in developing countries since all the sectors of the development are closely dependent upon the existence of suitable transportation network. The transport sector which undertakes movement of people and goods from one place to another constitutes one of the most important sectors in the present world. It is a part of daily life having all enveloping influence on every one of us. There is no individual today who is not directly or indirectly served by public transport. In fact the whole structure of industry and commerce rests on the well laid foundation. But unfortunately, very little has been achieved in this direction. It has been observed that PEPSU could not yield results due to free pass facilities to some segment of population and not given proper attention to revive this sector in the state's economy.

References:

Datt, Ruddar, Sundharam, K.P.M., 2009. Indian Economy. New Delhi, S.Chand Publications. PP-133.

- Ministry Of Information and Broadcasting. Research and reference Division., India 1992 A Refence annual, 1993. Government of India.
- Singh, B.R. Kumar, Engineering Environment and Society, Delhi, R.B. Publications.
- Upadhyay, A.K. 2012, Basic Road Statistic of India, Ministry of Road Transport and Highways, Transport research Wing, Government of India, and New Delhi.
- Vibhor, Mohan, May2,2015, Public Transport Tilted in favour of private players in Punjab, The Times of India,.
- The Energy and Resources Institute, Green Growth and Transport Sector in Punjab, 2015, Department of Science, Technology and Environment, Government of Punjab.

Punjab State Road Safety Policy, 2014., Department of Transport, Government of Punjab.

International Monetary Fund. 2016. World Economic Outlook. ISSN 1564- 5215.

- Singh, Seema. 2015, Green Growth and Transport in India. The Energy and Resources Institute. New Delhi.
- Shashi Bala. 1986, A Study into the Organizational and Administrative Aspects of Working of Road (Passenger) Transport in Punjab with Special Reference to Pepsu Road Transport Corporation. Ph.d Dissertation. Punjabi University, Patiala.
- Chand Bidhi. 1975, Nationalized Road Passenger Transport in India with Special Reference to Punjab, Haryana and Himachal Pradesh. Ph.d Dissertation. Panjab University, Chandigarh.
- Rahi kishore. 1977, Performance of Public and Private Transport Undertakings (A Case Study of Punjab Roadways and Ambala Syndicate Pvt. Ltd.). M.phill Dissertation. Panjab University, Chandigarh.
- Kumar Rakesh. 1998, Organizational Conflict in Pepsu Road Transport Corporation. Doctoral dissertation. Punjabi University, Patiala.
- Modi Sanjay. 1993, Trade Unionism in Punjab: A Case Study of PRTC. Doctoral dissertation. Punjabi University, Patiala.
- Singh Omkar. 1991, Material Management in Punjab Roadways. Master's Dissertation. Punjabi University, Patiala.
- Joshi Mahesh. 1990, A Critical Study of Working Capital Management in PRTC, Patiala. Master's Dissertation. Punjabi University, Patiala.
- George Mariamma Sanu. 1993, Performance of Public Road Transport System: A case study of the Kerala State Road Transport Corporation. M.phill Dissertation. Jawaharlal Nehru University, New Delhi.
- India 1992, A Refrence Annual Research and Referene Division. Ministry of Information and Broadcasting. Govt. of India. P.591.
- Mahajan, V.S., Transport Planning, Policy and Development, Deep & Deep Publication, New Delhi, PP-434.

Statistical Abstract of Punjab, 2012, Government of Punjab.

Annual reports of Pepsu Road Transport Corporation, Patiala, 2014, Government of Punjab. from (www.pepsurtc.gov.in/Concessional.htm)