

CHAPTER 4

HARYANA ROADWAYS TRANSPORT UNDERTAKING: TRENDS AND PERFORMANCE

This chapter is an attempt to explain the recent trends and depot-wise performance of the Haryana Roadways. For the purpose, compound annual growth rate of various indicators was estimated over the time. To understand the performance of Haryana Roadways, it is very important to examine how well the services are rendered to the public by the Haryana Roadways.

4.1 Depot-wise Growth Rate of Capacity Indicators

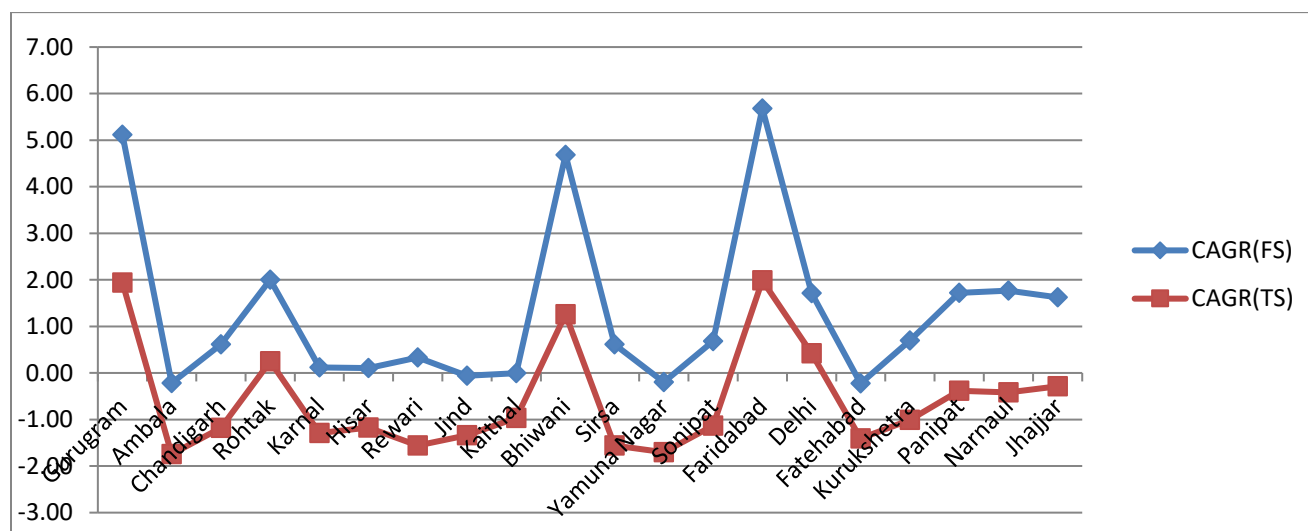
This section represents the compound annual growth rate of capacity indicators for 20 depots of Haryana Roadways. For the estimation of growth of capacity indicators, CAGR% method has been applied in the study. The table 4.1.1 presents the compound annual growth rate of Fleet Size (FS), Total Staff (TS), and Daily passenger carried (DPC). The table depict that the growth rate fleet size is highest in Faridabad followed by Gurugram and Bhiwani. The growth rate of fleet size for depots namely Ambala, Jind, Kaithal, Yamunanagar and Fatehabad is reported negative growth rate. The rest of depots reported the marginal growth of in and around of 1 to 2 percent in case of fleet size. The total staff is declining in almost all the depots of Haryana roadways (except Gurugram, Rohtak, Bhiwani, Faridabad and Delhi) as CAGR of these depots found negative over the time. More or less similar kind of performance can be observed in case of DPC.

Depots	FS	TS	DPC	Depots	FS	TS	DPC
Gurugram	5.11	1.94	-0.90	Sirsa	0.61	-1.56	-2.64

Ambala	-0.22	-1.74	-1.01	Yamuna Nagar	-0.19	-1.70	3.64
Chandigarh	0.61	-1.18	5.93	Sonipat	0.68	-1.13	1.45
Rohtak	2.00	0.25	3.19	Faridabad	5.68	1.99	1.27
Karnal	0.12	-1.29	-2.65	Delhi	1.72	0.42	-6.93
Hisar	0.11	-1.17	-6.15	Fatehabad	-0.23	-1.41	1.97
Rewari	0.33	-1.56	2.70	Kurukshetra	0.70	-1.01	-0.20
Jind	-0.06	-1.34	0.07	Panipat	1.72	-0.38	5.43
Kaithal	-0.01	-0.97	-3.52	Narnaul	1.77	-0.42	-4.19
Bhiwani	4.68	1.26	2.84	Jhajjar	1.62	-0.29	-2.59

Source: Researcher's calculation

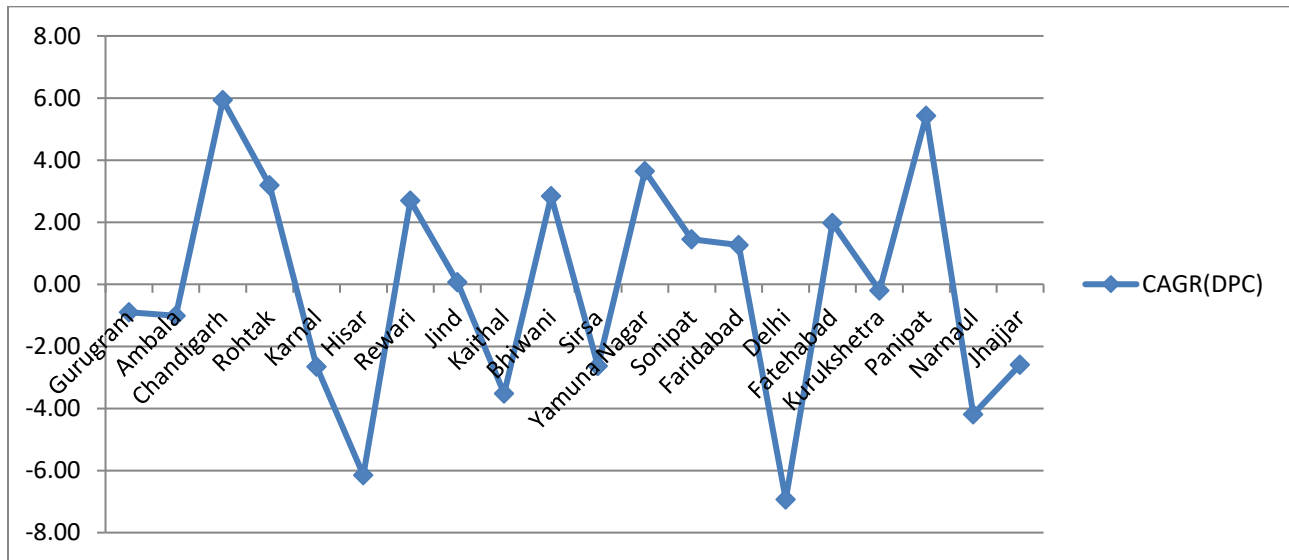
Figure 4.1.1 Depots-wise Growth Rate of FS and TS for Haryana Roadways from 2001-02 to 2016-17



The above figure depicts the performance status of Haryana roadways in term of capacity indicators. From this figure it is observed that the growth rate of total staff and fleet size of Haryana roadways would follow the same pattern. It means that if the number of buses has increased then the total number of staff would also have increased. Gurugram, Bhiwani, and Faridabad have experienced high growth rate in terms of fleet size and total number of staff. The reason behind this behavior is that in these depots the data of Nuh, Charkhi Dadri, Palwal and City bus service included because Gurgram was the parental depot of Nuh, Bhiwani parental depot of Charkhi Dadri and Faridabad was the parental depots for CBS and for Palwal. Ambala Jind, Kaithal, Yamuna Nagar, Fatehabad showing negative growth rate for fleet size and total number of

staff. Due to lack of financial resources less number of new buses were put on the road due to less investment on purchasing new buses. The annual administrative report of 2004-05 reveals that in Ambala depot the ratio of staff according to buses was 4.79 which was relatively lowest when compared to other depots.

Figure 4.1.2 Depots-Wise Growth Rate of Daily Passenger Carried by Haryana Roadways from 2001-02 to 2016-17



Source: Researcher’s calculation

Figure 4.1.2 shows the daily passengers carried by Haryana roadways. In 2001-02 daily passenger carried by Haryana roadways was 1044657 and in 2016-17 the number of passenger of Haryana roadways has been increased to 1208335 (around 16%). From the above figure it was observed that some depots showing negative growth rate of daily passenger carried, it does not mean that passenger reduced for that depot, it simply indicates that number of daily passenger carried by Haryana roadways shifted to private buses. Delhi depot shows the highest negative growth rate (-6.93) and the reason was the introduction of private buses and operation of Delhi Metro since 24 December 2002. Even Delhi Metro is a local mode of transport in Delhi but its

metro station is connected with Gurugram and other regions which are nearby Delhi so many of the passengers of Haryana roadways have shifted in Delhi metro.

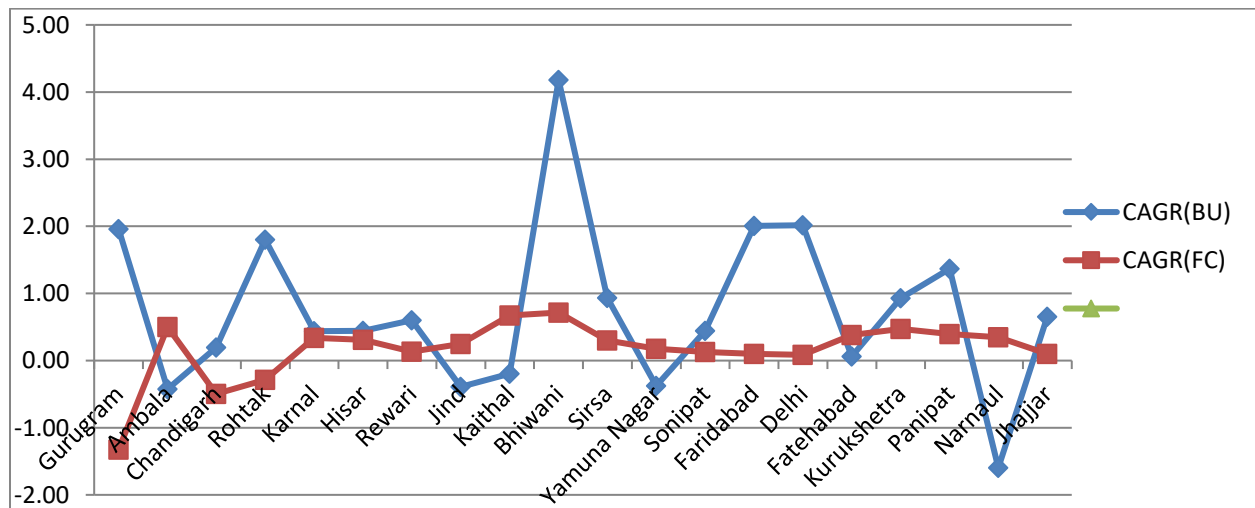
4.2 Depots- wise Growth Rate of Productivity Indicators

Bus utilization and fuel consumption on per bus has been taken as productivity indicators to measure the performance of Haryana Roadways. Table 4.2.1 presents the compound annual growth rate from 2001-02 to 2016-17.

Depots	BU	FC	Depots	BU	FC
Gurugram	1.96	-1.32	Sirsa	0.94	0.30
Ambala	-0.43	0.50	Yamuna Nagar	-0.37	0.17
Chandigarh	0.19	-0.50	Sonipat	0.44	0.13
Rohtak	1.80	-0.29	Faridabad	2.00	0.10
Karnal	0.44	0.34	Delhi	2.02	0.08
Hisar	0.44	0.31	Fatehabad	0.06	0.38
Rewari	0.60	0.13	Kurukshetra	0.93	0.47
Jind	-0.39	0.25	Panipat	1.37	0.39
Kaithal	-0.19	0.67	Narnaul	-1.60	0.35
Bhiwani	4.18	0.72	Jhajjar	0.65	0.10

Source: Researcher’s calculation

Figure 4.2.1 Growth Rate BU and FC from 2001-02 to 2016-17



Total effective kilometer per day completed by Haryana Roadways has been increased over these 16 years. In 2001 total effective kilometer done by Haryana Roadways was 3833.28. From 2001 to 2016 it has been increased by around 20%, in 2016 total effective kilometer was 4601.8. All the selected depots have shown positive growth rate of bus utilization except the Ambala , Jind, Kaithal, Narnaul and Yamuna Nagar depots. The negative growth rate was not very significant it was just below 1%. This have occurred as a result of decline in the total effective kilometer done by these depots and shortage of staff and corresponding shift of the bus routes from Haryana roadways to private buses. Over these sixteen years the growth rate of bus utilization has depicted that Haryana roadways performed well. Over these periods the growth rate of bus utilization showed a positive trend. Fuel consumed by Haryana roadways had not changed significantly over the time. From table 4.2.1 it is found that, only Gurugram, Rohtak and Chandigarh are that depots which show negative growth of fuel consumed. This implies that buses of these depots have consumed less fuel compared to other depots. The above three districts of Haryana are more developed than others due to increased construction of roads and introduction of new buses in these depots which ultimately increased the productivity.

4.3 Depots- wise Growth Rate of Financial Indicators

Depots	TR	TE	Depots	TR	TE
Gurugram	10.51	10.93	Sirsa	8.89	9.63
Ambala	7.00	12.67	Yamuna Nagar	7.08	8.82
Chandigarh	8.39	9.97	Sonipat	7.53	10.12
Rohtak	9.11	11.05	Faridabad	8.45	4.34
Karnal	8.24	9.49	Delhi	8.64	11.32
Hisar	7.95	10.16	Fatehabad	7.43	9.82
Rewari	8.05	8.96	Kurukshetra	8.98	10.36
Jind	7.03	10.40	Panipat	7.98	10.57
Kaithal	7.39	9.63	Narnaul	8.99	10.31
Bhiwani	12.90	6.90	Jhajjar	7.02	10.42

Source: Researcher's calculation

Figure 4.3.1 Growth Rate of Total Receipts and Total Expenditures of Haryana Roadways

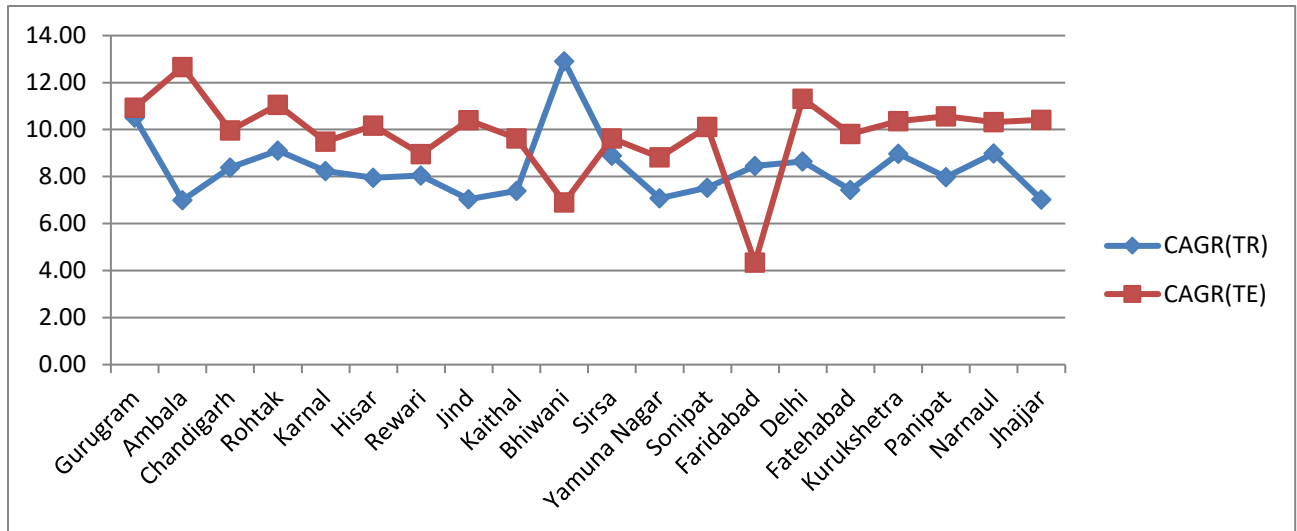


Table 4.3 presents the growth rate of total receipts and total expenditures of Haryana roadways. In 2001-02 total receipts incurred on Haryana roadways for 20 depots was 40406.26 lakh in 2016 it was observed that the total receipts incurred by Haryana government on Haryana roadways increased to 126503.1 lakh, similarly total expenditure also has been increased from 45165.26 lakh to 171497.1 lakh. Over the time period of sixteen years there is significantly change in total receipts and total expenditures. Figure 4.3.1 depicts the positive growth rate of total receipts and total expenditures. It is a big surprise that both total receipts and total expenditure shows significant positive growth still Haryana roadways face losses. Investment expenditures, expenditures on staff and other administration expenditures had been increased in these 16 years. Total receipts also showing the positive growth but not able to cover all expenditures. Haryana Roadways provided various social services to society for welfare for example student bus pass, free services to girls student, fare concession for senior citizen, freedom fighter and handicapped people. That why total receipts not much sufficient for total expenditures.

4.4 Depots- wise Growth Rate of Safety Indicators-

Depots	AC	Depots	AC
Gurugram	1.51	Sirsa	-1.66
Ambala	-1.50	Yamuna Nagar	-4.52
Chandigarh	-7.54	Sonipat	-4.68
Rohtak	-3.08	Faridabad	-4.79
Karnal	-3.61	Delhi	-1.56
Hisar	-3.68	Fatehabad	-4.32
Rewari	-6.05	Kurukshetra	-2.89
Jind	-0.83	Panipat	-0.76
Kaithal	-5.70	Narnaul	-8.92
Bhiwani	-1.30	Jhajjar	-10.98

Source: Researcher's calculation

Graph 4.4.1 Representation of Safety Indicators

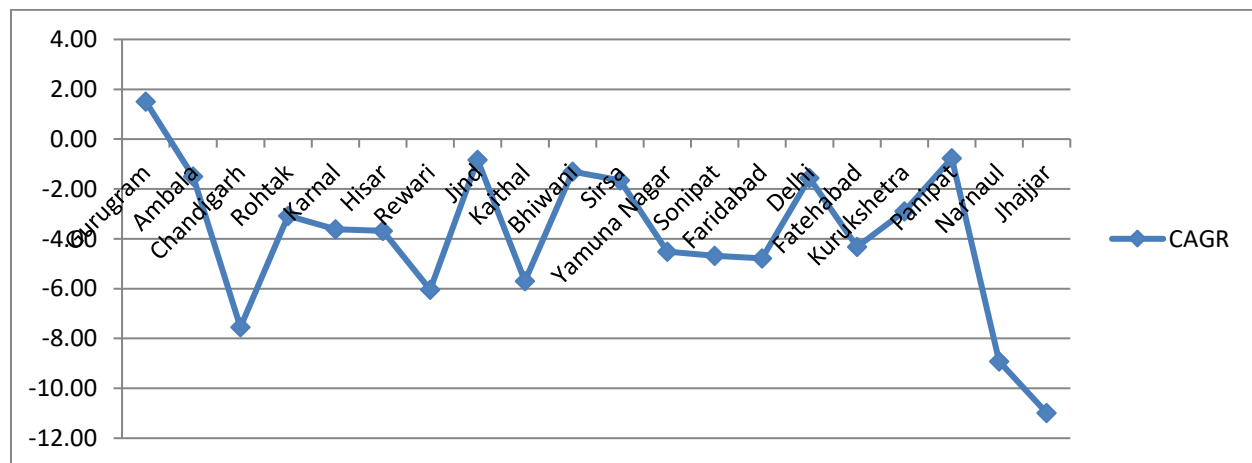


Table 4.4 and graph 4.4.1 represents the CAGR of bus accidents during the time period 2001 - 2016. It shows negative growth rate of accidents in all depots except Gurugram depot. Here, Jhajjar(-10.98) depots of Haryana Roadways having highest negative growth rate. Jhajjar depots commenced with effect 1st April 2000. According to data which has been collected by statistical abstract of Haryana, it observed that in early years 2002, 2003 the total number of accidents was very higher it was 34 in 2002, and 24 in 2003 after these 2 years the rate of accidents by Haryana Roadways was declined at the end in 2016 there was no accident. In

early years when this depot was commenced the condition of roads was very poor due to this reason the rate of accidents was very high but after that the road has been improved slowly and the with effect the accident rate also declined. Here only one depot Gurugram which shows positive accident growth. In this depot from 2001 to 2013 the rate of accident was declined but in 1.01.2013 Nuh depot was commenced, Nuh depot was the part of Gurugram depot before 2013. The number of accidents by Nuh depot roadways also included in the number of accident of Gurugram roadways this shows that every year after 2013 the number of accident was increased with very high rate it was 4 in 2013 but in 2014 and 2015 it was 17 and 25. But overall from above graphic representation it clearly observed that Haryana roadways performed well because the accident rate has declined over the time period. Except Gurugram all other depots showing negative growth rate of accidents.

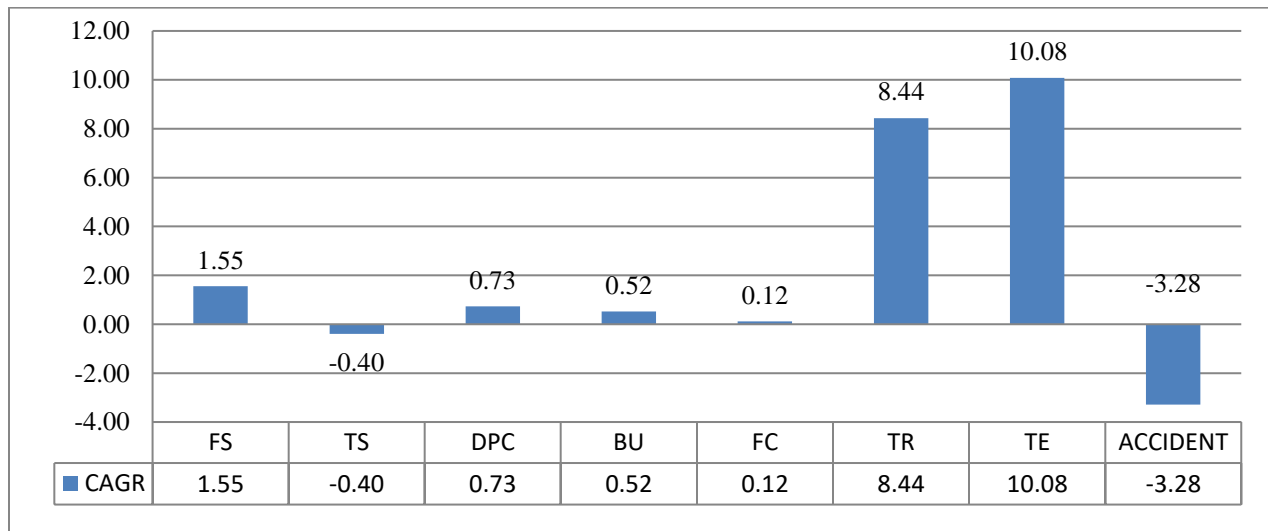
Table 4.5 CAGR Performance of Best and Worse Depots		
Indicators	Better performing Depots	Worse Performing Depots
FS	Faridabad(5.68)	Fatehabad(-0.23)
DPC	Chandigarh(5.93)	Delhi(-6.93)
TS	Faridabad(1.99)	Yamuna Nagar(-1.70)
BU	Bhiwani(4.18)	Narnaul(-1.60)
FC	Gurugram(-1.32)	Kaithal(0.67)
TR	Bhiwani(12.90)	Ambala(7)
TE	Bhiwani(6.9)	Ambala(12.67)
Accident	Jhajjar(-10.98)	Gurugram(1.51)

Source: Researcher's calculation

Indicators	CAGR
FS	1.55
TS	-0.40
DPC	0.73
BU	0.52
FC	0.12
TR	8.44
TE	10.08
AC	-3.28

Source: Researcher's calculation

4.6.1 Graphical representation of Overall Performance of Haryana Roadways



4.7 Findings of the Chapter

This chapter was focused on the performance of Haryana Roadways. The positive or increasing CAGR of FS, TS, DPC, BU and TR and negative or declining growth rate of FC, TE and Accidents revealed that Haryana Roadways performed very well. Table 4.5 depicted best and worse performed depots. Among twenty depots Faridabad and Chandigarh performed better than others in term of capacity indicators and Fatehabad, Delhi and Yamuna Nagar performed worsen. Corresponding for productivity indicators Bhiwani and Gurugram both on top and

Narnaul and Kaithal both poorly performed than others. In term of financial indicators and safety indicators Bhiwani and Jhajjar is on top and Gurugram and Ambala on bottom. Table 4.6 and figure 4.6.1 depicted the overall performance of Haryana for all indicators. From above table it is clearly observed that Haryana roadways perform in a good way but some areas there requires a change. One notable point is arrived there that is reduction in total staff this simply implies that the Haryana Transport not much provided employment opportunity. The 16 years performance analysis of overall Haryana showing declined in employment. Due to shortage of staff other factors are also influenced that is why DPC is not significantly changed with in these 16 years. In term of safety Haryana Roadways improving in these years the rate of accident declined from 2001 to 2016.