

CHANGING PROFILE OF STATE GOVERNMENT BUSES AFTER INDEPENDENCE: A CASE STUDY OF KOLKATA AND WEST BENGAL, INDIA

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ABSTRACT:

Government of West Bengal established an organization for providing transports service in public sector. The organization was formed mainly for providing transport service but the government had expected that the STUs take a vital role to build up an economic platform. Government had hoped that it will get income from this service as well as many employees will be appointed in this sector. Later on more STUs have been formed but the services and income have decreased due to lack of efficient employees, infrastructure, economic status and management system. Subsequently government has permitted private organization for providing transport services. So the competition face has been started and the STUs could not exist to play a leading role and day by day they are reducing fleet strength on different routes.

Keywords: STUs, Changing Profile, Economic Status, Worker Efficiency, Service Quality.

I. INTRODUCTION:

Government buses of West Bengal have been taken a valuable role of transportation in urban and rural area in West Bengal after independence. Different organizations of government bus have been formed after independence for providing good transport service from core to remote area. Government bus service is not only depends on profitable purposes but also is provided to human welfare and transportation purpose in remote area. Simpson (1980) has defined that mass transport as "any means of passenger transport available to any body without restrictions as to membership of any group, provided that conditions of the operator are met, including payment". The government bus service has maintained convenience of public and demand of public who are belonging the middle class in our society. Despite this fact transport system is comparatively more essential for the majority of the people in the developing countries, who have limited access or no access to a car or personalized vehicles or who cannot afford costly moods (Turton and Black, 2001). West Bengal is not an exceptional region. In 1948 after independence, the first government bus service has been started by a government organization name as Calcutta State Transport Corporation; this was an undertaking government bus organization. Primarily, this bus service has been started journey into urban area. Thereafter this organization has provided service in rural area and among different small towns. Recently government buses are different categories like AC, Non AC, and AC Volvo etc which are running among different routes on public or passenger demand. Government bus services also provide new apps and social media by which passengers can access the services easily.

II. LITERATURE REVIEW:

In this area, there are many papers published on public transport services like govt. bus services which have been developed after independences. Sukla Bhaduri and Eshita Boral (2015) in their paper "Nodal network analysis to assess the transport efficiency through highway in the state of West Bengal" have studied the connectivity among the roads and nodal points like small township areas. Govt. buses play the role to connect different nodal points by their routes. Kolkata Municipality Corporation (2008) published "Comprehensive Mobility Plan for Kolkata Metropolitan Area", there is explained the vision of CSTC, CTC and WBSTC bus services. Dr. Jayita Guha Niyogi and Soumen Mitra (2012) published the paper as "A quick assessment techniques to determine profitability in private city bus services: a case study of Kolkata-Howrah urban area, India has provided in detail bus services in Kolkata and its surroundings area. Dr. Sukla Bhaduri and Teesta Dey (2012) in their paper "Changing profile of state transport undertakings in mass transport services: a case study of Kolkata city" have identified the status and role of govt. bus services to public transport system in Kolkata and surroundings area. Sudakshina Gupta and D. K. Halder (2002) in their paper "Pricing of urban transport system: a special reference to CSTC" have emphasized on the pricing mechanism of CSTC with private bus organization.

III. LOCATION OF THE STUDY AREA:

West Bengal, the state of India, it is 14th rank according to size in India. Total area is 88752 sq km and the total motor able road length is 92223 km and STUs covering the 222230 km (statistical abstract, 2015) including all type of roads and route

covering with other states. The STUs are providing services into different Districts, viz. NBSTC provides service mainly Darjeeling, Jalpaiguri, Coach Behar, Uttar Dinajpur, Dakshin Dinajpur, Malda, Murshidabad, Birbhum, SBSTC is providing service mainly Purba Bardhaman, Paschim Bardhaman, Purba Midinipur, Paschim Medinipur, Bankura, Purulia, Jhargram, Hooghly, North and South 24 Parganas, CTC are covering mainly Kolkata, Howrah, North and South 24 Parganas, WBSTC Covering Kolkata and Surrounding districts of the routes mainly covering Kolkata and its surrounding area.

All STUs are provided the long distance services from their depots. All routes are covering through State high ways (SH-1 to SH-15), National Highways (NH-2, NH-5, NH-6, NH-34 and NH-35 etc), district road ways and congested connectivity road of Kolkata city.

IV. DATABASE AND METHODOLOGY:

This paper is generated on the basis of primary and secondary data. Primary data has been collected from 90 respondents of south Kolkata who travel by government buses regularly and respondents have been selected by random sampling method. Secondary data has been collected from CSTC, CTC and WBSTC office and depot. Some secondary data have been collected from the Website of West Bengal Transport Corporation and official website of CSTC, WBSTC, CTC, and statistical abstract of West Bengal act 2005, 2012, 2014, and 2015. All the methods are carried out in systematic way - data collection, data processing, data analyses which are represented through simple cartographic techniques.

V. OBJECTIVE:

- To compare the different phases of government bus service after independence.
- To identify main disability of government services.
- To identify modern technology for glorious performance of government bus service after independence.

VI. HISTORY OF GOVERNMENT BUSES IN WEST BENGAL:

After independence different government undertaking organizations started their journey for providing good transport service.

Calcutta State Transport Corporation started its journey on 31st July 1948 as State Transport Service with an objective to provide efficient adequate economical and properly coordinated passengers bus services mainly in and around the city of Kolkata in West Bengal. On 15th June, 1960 the name of State Transport Service has changed to Calcutta state transport corporation (CSTC) under the Road Transport Corporation Act, 1950. In 1966 its service had been changed and connects 90% of national highway in West Bengal. To fulfill the demand of rural passengers, CSTC introduces a Long Distance Bus Service (LDS) from Calcutta to Digha in April 1968.

North Bengal State Transport Corporation was established in 1960 by state government under road transport corporation Act, 1950. The organization started its service with three buses among Manasai Ghat, Burnish Ghat, Alipurwar, Tufanganj etc. Long distance service started in 1968 when Siliguri to Kolkata route was opened. Raiganj to Jalpaiguri and Siliguri to Guwahati added in 1970 (Bhaduri, 1992).

South Bengal State Transport Corporation (SBSTC) started the journey from 1st August 1963 in Durgapur. Initially transport services were operated only in the Durgapur township area covering a total route length of 65 km with a fleet of 8 buses. In 1964 -65, the fleet strength increased to 25 with a total operating route of 102 km. In 1965 – 66, long distance mofussial were first introduced covering the total length of 428 km and fleet strength increased to 62 buses. On 15th August 1967 the departmental undertaking was converted into 'Durgapur state Transport Board' (DSTB). The commissioner of Burdwan was made Ex officio chairman on the board. In 1968- 69 DSTB extended its activities through augmentation of fleet strength of 100 buses operating in 11 long distance and 8 township routes covering the total length 1200 and 176 km respectively. After that, in 1972- 73 route length, the number of route and fleet strength were increased. From 7th December 1973 "Durgapur State Transport Corporation" converted in to public sector and this period fleet strength increased to 120 and many new routes were introduced viz. Durgapur –Santaldihi, Durgapur –Puri, Durgapur - Jiaganj etc. In 1988 DSTB converted to SBSTC and it was take a new vision of transport services. Road transport facilities provide in the five districts of South Bengal viz. Burdwan (newly Purba Bardhaman and Paschim Bardhaman) Bankura, Purulia, Midnapur (newly Purba Medinipur and Paschim Medinipur and Jhargram) and Hooghly.

West Bengal State Transport Corporation was established in 1989. Formerly it was known as West Bengal Inland Water Transport Corporation Limited. WBSTC started with the ferry service on the Hooghly and Muri Ganga rivers. In 1992 the organization started bus services by 8 buses in Kolkata surroundings area. Now it has 225 buses covering Kolkata and its surrounding area.

Calcutta Tramways Company as CTC is a state tram company that operates tram and buses around Kolkata (Calcutta) in West Bengal. CTC is the only operating tramway in India and is the oldest electric tram in Asia, operating scenes 1902. This transport organization started bus service by 40 buses in 1993 from Rajabazar depot, augmented with service from Khidirpur

depot. The Tollygunge and Belgachia depots were added in 1994 and 1995 respectively. In 2005 CTC also provided bus services from Ghasbagan depot at Howrah.

VII. DATA ANALYSIS

CHANGING CHARACTERISTICS OF GOVT. BUS IN WEST BENGAL

i) Initial Phase (1948- 1960)

On 31st July 1948 the State Transport Undertaking (STUs) under the Directorate of Transportation Government of West Bengal was established in the form of an organized public sector. Government forms the separate transport corporation under the Road Transport Corporation (RTC) Act, 1958. It introduces bus service on 6 different city routes with 25 petrol driven single buses (Bhaduri, 2003). In 1949 to 1950 diesel era started with the acquisition of double decker buses, bought from England. Thereafter the semi autonomous unit i.e. CSTC was formed by West Bengal Government under RTC Act, 1950 providing bus services to Kolkata and surrounding area.

CSTC faced competition with private operator by the growth of fleets. These become a definite and phased program in 1955- 66, when planning commission recommended gradual nationalization of transport service all over country.

ii) The Rising or Lifting Phased (1960 to 1970)

In this period mainly CSTC had taken a main role to provide transport service. Between 1964 and 1967 the CSTC enjoy the virtual monopoly of all intercity routes. But the CSTC could not take full advantage of it. In the year 1960 -66 CSTC nationalized about 90% of city route, but due to financial constraints, the corporation could not cope with increasing passengers demand. Up to 1966 most of motor buses in Kolkata were provided by the CSTC with a total of only 941 buses owned and operated on 32 routes, three of which were with the cooperation of Kolkata. As on November, 1966 the corporation had and invested capital of approximate 91 million with reverse of Rs. 32 million. 12000 people were employed including thousand people in the central workshop (statistical abstract of West Bengal 1975).

Year	Serviceable Fleet	Percentage Growth	Average km/bus/day	Percentage Growth	Passengers/trip/day (in millions)	Percentage Growth
1960-61	729		230		1.285	
1961-62	811	+11.25	226	-1.74	1.385	+7.78
1962-63	855	+5.43	192	-15.04	1.353	-2.31
1963-64	802	-6.20	193	+0.52	1.341	-0.89
1964-65	766	-4.49	202	+4.66	1.083	-19.24
1965-66	941	+22.85	190	-5.94	1.083	0.00
1966-67	913	-2.98	167	-12.11	1.085	+0.18
1967-68	873	-4.38	159	-4.79	1.083	-0.18
1968-69	806	-7.67	147	-7.55	1.078	-0.46
1969-70	774	-3.97	139	-5.44	0.962	-10.76

Table-1: Performance of CSTC (1960-1970), computed by Author.

Source: Annual Administrative Report of CSTC (1964-1972)

As regards rural bus services of CSTC introduced the operation as Long Distance Bus Services (LDS) on the Kolkata-Digha route from 14th April 1968 mainly to meet the increased demand of interior part of different districts. Staffs was increased from 8820 in 1960- 61 to 13171 in 1969 -70 basically CSTC had registered profit in the first two years of its Inception i.e. 1960 -61 and 1961- 62. (Table No.-1)

During this period to other STUs form for providing bus services mainly outside of Kolkata. There were WBSTC and SBSTC, NBSTC was formed on 15th April, 1960 to cater to the passengers of Northern part of West Bengal and SBSTC formed on 1st August, 1963 to cater the passenger of southern part of state (Bhaduri, 1992)

iii) Rapid Improvement Phases Among STUs (1970-2000)

In this period all STUs had take an important role of transportation in public sector. CSTC routes cover the mass traffics cape up to 1976 with a fleet strength of 1331 buses. During this period apart from CSTC, there were no other STUs in Kolkata to supply buses for the passengers and compete with the private sectors. CTC experienced rapid fall of tram services in this phases maximum number of tram route was closed due to its relative lack of existential viability according to the government on the busy city roads. CTC started bus service in city area and CSTC extend bus services, NBSTC and SBSTC services were also started outside of Kolkata. (Gupta and Halder 2002).

Year	Fleet	Routes	Total Length Run	Passenger	Earning per	Cost per	Staff
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	Strength		(in Thousand km)	Served (lakh)	km	km	Strength
1992-93	8	3	447	9.15	7.09	10.08	46
1993-94	12	3	627	11.00	7.82	10.50	56
1994-95	19	6	1012	17.00	7.76	7.30	84
1995-96	48	12	1525	26.00	7.82	8.50	150
1996-97	85	17	3222	35.00	6.61	9.25	270
1997-98	85	25	4002	39.00	5.99	9.67	288
1998-99	85	22	4047	46.00	8.70	9.62	289
1999-00	88	24	4330	54.00	6.70	8.11	344

Table-2: Performance of WBSTC Buses (1992-2000)

Sources: Statistical Abstract of West Bengal (1994 and 2005)

WBSTC started bus service on 31st march 1992 with only by 8 buses. Initially it had no a depot, a small office setup at Taratala. Later on depot was formed at Purbasha near Salt Lake City with 35 buses in 1995. The next year Saltlake depot was formed at sector-V with 85 buses and in 2000, it had only 88 buses.

Year	Fleet Strength	Routes	Total Length Run (in Thousand km)	Passenger Served (lakh)	Earning per km	Cost per km	Staff Strength
1992-93	40	6	1100	164	0.68	0.44	280
1993-94	69	18	4911	265	6.87	5.36	483
1994-95	215	23	10700	302	8.20	7.87	1480
1995-96	300	33	18300	476	7.55	8.19	1652
1996-97	300	38	19583	516	8.70	10.01	1910
1997-98	330	38	19900	530	8.80	10.55	2373
1998-99	330	38	20000	552	9.12	10.81	2379
1999-00	330	38	19000	514	9.68	12.25	2358

Table-3: Performance of the CTC Buses (1992-2000)

Sources: Statistical Abstract of West Bengal (1994 and 2005)

The CTC bus services started journey from Rajarhat depot 1992 with 40 buses there after bus services started from Khidirpur in 1993, Tollyganj in 1994 and Belgachia in 1995. For this period the fleet strength was increased in initial stage of this phase.

Year	Government Bus Organizations				
	CSTC	CTC	WBSTC	NBSTC	SBSTC
1970-71	1059	-	-	232	107
1974-75	1436	-	-	327	141
1980-81	1099	-	-	373	151
1984-85	1107	-	-	330	201
1990-91	1196	-	-	870	472
1994-95	1205	215	19	971	633
2000-01	1268	356	88	910	547

Table-4: Fleet Strength Variations among Different Bus Organizations in West Bengal (1970-2001)

Source: Statistical Abstract of West Bengal (1961, 1975, 1978-89, 1994-95, and 2005)

Comparatively CSTC had taken a leading role of transportation; fleets strength is increased from 1059 to 1268 in this phase. NBSTC had increased the fleets' strength than other organizations and had massive changed from 330 to 870 in 1990-91. In 2000 Govt. buses had increased maximum limit of fleet strength. (Table No.4)

iv) The Declining Phase 2000 onwards:

From 2000-01 to 2010-11 STUS have been declining trend in transport services. CSTC vista oldest organization it has dominated on other organization by number of fleet strength.

Year	Criteria	Government Bus Organizations				
		CSTC	NBSTC	SBSTC	CTC	WBSTC
2000-01	Fleet Strength	1268	910	547	356	88
	No. of Routes	215	440	190	40	126
	Total length run (in 000 km)	57828	50301	33559	17538	4993
	Passenger served (in 000)	234271	80332	65637	47700	6600

	Total Earning	552219	443940	283113	192000	32201
	Total Cost	1228990	1054792	634054	261200	54385
	Staff Strength	8923	6273	3008	2387	270
2010-11	Fleet Strength	878	704	488	340	152
	No. of Routes	90	207	136	47	17
	Total length run (in 000 km)	36714	40218	37811	18578	5129
	Passenger served (in 000)	134320	57545	92734	52000	10268
	Total Earning	654141	652470	1348324	388300	58845
	Total Cost	2514274	1866572	1815854	863400	58283
	Staff Strength	5799	3959	2656	2210	189
2014-15	Fleet Strength	782	721	515	305	225
	No. of Routes	112	215	151	39	33
	Total length run (in 000 km)	20766	37808	38560	8500	6432
	Passenger served (in 000)	61633	76400	20571	42500	11594
	Total Earning	724052	877019	1524250	342100	114085
	Total Cost	3119120	1700215	1911829	935700	107174
	Staff Strength	4570	3001	2088	1438	258

Table-5: Different characteristics among STUs in West Bengal (2000-01, 2010-11, and 2014-15)

Source: Statistical Abstract of West Bengal (2001, 2011 and 2015)

For first 10 years the average number of fleet strength has been reduced from 1268 to 878 for CSTC buses.356 to 340 for CTC buses. NBSTC had been decreased service for first 10 years in the period. The fleet strength has been reduced from 910 to 704. For past 10 years of declining face for SBSTC has reduced the fleet strength from 547 to 488 only WBSTC has increased the fleet strength from 88 to 167. From 2010-11 to 2014-15 the fleet strength has been reduced from 878 to 782 for CSTC, from 340 to 305 for CTC, but NBSTC ,SBSTC and WBSTC have increased the fleet strength from 704 to 721,from 488 to 515 and from 167 to 225 respectively (Table No.5).

VIII. FINDINGS

1. Service Quality of STUs:

Different organization has provided service but after year of 2000 all organization has decreased their services. Service quality is determined by selecting for indicator i.e. number of roots, total length run per year, total member of passengers served per year and passengers carried per vehicle per year. The combined result demonstrate that service quality is best for CSTS bus services and gradually decline in case of CTC ,NBSTC and WBSTC bus services. Significantly future improving trained in best scene in case of WBSTC and SBSTC bus services (Table No.5).

Year	Passenger carried by a bus per day					Road cover (in km) by a bus per day				
	CSTC	NBSTC	SBSTC	CTC	WBSTC	CSTC	NBSTC	SBSTC	CTC	WBSTC
2000-01	506	242	327	367	205	124	151	168	134	205
2010-11	419	224	520	419	185	114	156	212	92	78
2014-15	215	290	109	382	141	73	143	205	76	78

Table-6: Passenger carried and road covered by a bus per day computed by author.

Sources: Source: Statistical Abstract of West Bengal (2001, 2011 and 2015)

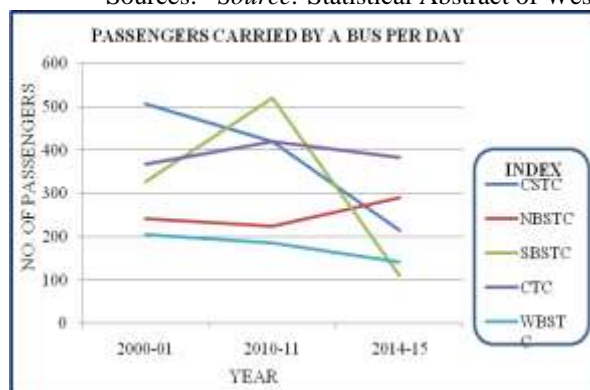


Fig.-1 Status of passengers carried by bus
Source: Table No. 6

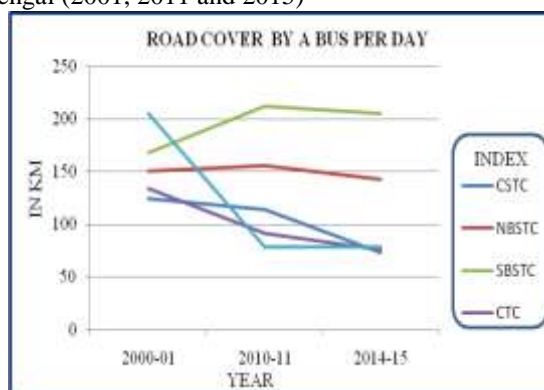


Fig.-2 Status road cover by bus per day.
Source: Table No.6

Number of fleet and strength and routes were better than other private organization, but due to insufficient route orientation lack of route variety and route superimposition, poor bus frequency passenger demand has fallen. As result all organization has been reduced bus on road. Bus was not run more frequently per day. Only SBSTC has been running the better position than the other public organizations.

2. Economic Status

Economic condition of government bus services depend on the combined effect of infrastructural and service quality of bus services. Each STU in West Bengal has not been able to make profit from their transport service in last 15 years which is observed from the temporal graph. Three important indicators are taken for economic status analysis i.e. earning per kilometer, cost per kilometre and earning per vehicle. All the three indicators revel that each and every STU is running under severe loses due to unbalance gap increasing expenditure and stagnant revenue generation. Recently the service quality has been increasing but infrastructural in efficiency; low ticket value and high maintenance cost have led to the occurrence of high level loss for each STU. Although except WBSTC bus services all the remaining services show slight increasing trend of revenue generation.

Year	Indicators	Organizations				
		CSTC	NBSTC	SBSTC	CTC	WBSTC
2000-01	Earning Per Km (Rs.)	9.64	8.83	8.44	10.95	6.45
	Cost Per Km (Rs.)	21.25	20.97	18.89	14.89	10.89
	Earnings Per Vehicles (Rs.)	1193.16	1336.56	1418.01	1477.60	1002.52
2010-11	Earning Per Km (Rs.)	17.81	16.22	35.66	20.90	11.47
	Cost Per Km (Rs.)	68.48	46.41	48.02	46.47	11.37
	Earnings Per Vehicles (Rs.)	2041.19	2539.19	7569.75	3128.93	1060.65
2014-15	Earning Per Km (Rs.)	34.87	23.20	39.53	40.25	17.74
	Cost Per Km (Rs.)	150.20	44.97	49.58	110.01	16.66
	Earnings Per Vehicles (Rs.)	2536.70	3332.58	8108.79	3072.98	1389.16

Table-7: economic status among of govt. bus computed by author.

Sources: *Source:* Statistical Abstract of West Bengal (2001, 2011 and 2015)

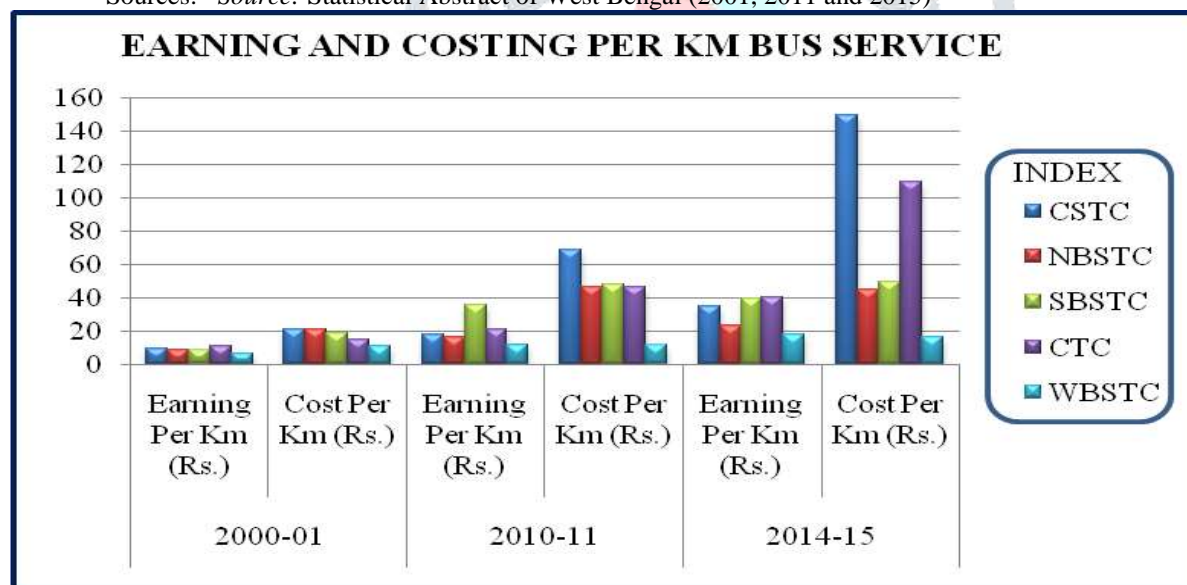


Fig.3: Economic status of STUs

Sources: Table No.7

From CTC earning capacity is better than other STUs against cost per km by bus service. CTC has earned Rs. 10.95, 20.90 and 40.25 in 2000-01, 2010-11 and 2014-15 respectively. Cost has been increased for CSTC than other STUs, from 2000-01 to 2014-15 increased the cost near about 614% and other side earning capacity has been increased only 113%. SBSTC has increased the amount of earning per vehicles as Rs. 1598.38 from 2000-01 to 2014-15 (Table No. 7).

From showing graph it is observed that all STUs you have been increasing loss in high. Rate the graphs showing that last 15 years CSTC, NBSTC, SBSTC, CTC have been increasing loss amount per kilometer. Only WBSTC have been getting profit very least margin.

3. Workers Efficiency:

Proper systematic functioning and management of transport service like government bus service highly depend on staff strength and their productivity. Two important indicators have been selected to classify the workers efficiencies viz. staff

vehicles/bus ratio and staff productivity. Usually high pressure of staff in comparison to the number of working vehicles reduce the staff productivity in terms of effective kilometer run per worker per day by a bus.

At present situation all of the STUs are adversely affected by excess staff pressure compared to the actual working vehicular strength and their earning capacity. Maximum money is drained out for making salaries of the excess workers which directly or indirectly do not contribute to revenue generation. All STUs could not use the worker to proper utilization.

Year	Indicators	Organizations				
		CSTC	NBSTC	SBSTC	CTC	WBSTC
2000-01	Staff Vehicle Ratio	7.04	6.89	5.5	6.70	3.07
	Staff Productivity (KM)	17.75	21.97	30.56	20.13	50.66
2010-11	Staff Vehicle Ratio	6.60	5.62	5.44	6.5	1.2
	Staff Productivity (KM)	17.34	27.83	39.00	23.03	74.35
2014-15	Staff Vehicle Ratio	5.84	4.16	4.05	4.71	1.15
	Staff Productivity (KM)	12.44	34.52	50.60	16.19	68.30

Table-8: Status of Worker efficiency among of govt. bus computed by author.

Source: Statistical Abstract of West Bengal (2001, 2011 and 2015)

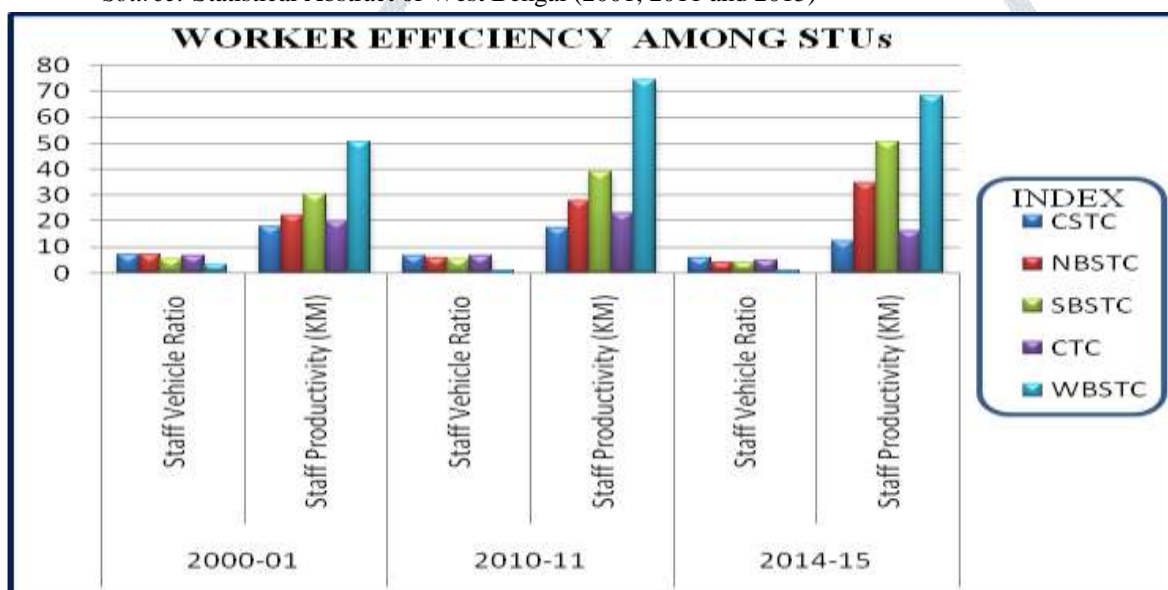


Fig.4: Status of Worker efficiency
Sources: Table No.8

From diagram is observed that the healthy staff productivity for WBSTC and SBSTC. In 2000-01 staff productivity was 50.66 km and in 2010-11 which had increased to 74.35 km. But 2014-15 the growth rate slightly decreased as 68.30 km for WBSTC. It is mention that the staff vehicles ratio are 3.04, 1.2 and 1.15 in 2000-01, 2010-11 and 2014-15 respectively for SBSTC. From 2000-01 to 2014-15, staff production has been increased from 30.56 to 50.60 km. Mostly strong inverse relation is observed between staff bus ratio and staff produces productivity in CSTC. In 2014-15, organization has been decreasing staff pressure, either under the Voluntary retirement scheme or by giving economic benefits and has tried to increase staff productivity. Result for NBSTC is not better, the inverse relation is observe between two indicator but it has decreased staff by giving economic benefit of VRS and has improved form 2014-15. The inverse relation is observed between two indicator but SBSTC has mostly improve from their travel from 2014-15. Organization has taken many policies implemented and the result, staff pass ratio has decreased and staff productivity has slightly increased. From 2000-01 to 2014-15, staff bus ratio has decreased from 6.7 to 4.71 but staff productivity increased from 20.13 to 16.19 (Table No.-8).

IX. PROBLEMS:

After independence the STUs has been providing transport services but they have not achieved huge profit as commercial purposes. Some problems have come out from STUS statistical abstract and opinions of passengers.

1. Lack of infrastructure to increase frequency of bus services.

2. STUs are selecting common route as result lot of buses run a common route by their routine but some routes are neglected from government bus services.
3. Fuel consumption and maintenance cost are very high.
4. Irregular bus services are disliked by passengers.
5. Bus driver and conductor are only maintaining their official duties but they are not bounded to increase income from a fleet per trip.
6. Lot of conductors are dishonest they do not provide ticket to passengers against exact fare.
7. A huge money expense for employees who are inactive workers in depot and transport offices.
8. Fuel consumptions are increased due to congestion of Kolkata city core area, mainly AC buses are faced this problem regularly.
9. The fleet as a public property which is damaged on "Strike Day" by oppositional political party.

X. SUGGESTIONS

1. The STUs should be an investigated the weak point of their services and they should solve through proper procedure.
2. Excess workers should be reduced by implementing Voluntary Retirement Scheme (VRS) or any economic benefits.
3. The STUs should maintain the staff bus ratio and staff productivity which is the most suitable for achieving profit.
4. Ticket selling system should be computerized machinery system and online ticket booking system should be implemented to the long distance routes for every passenger.
5. Infrastructure should be improved at every depot.
6. Regular depot survey by the officers is necessary to report the existing conditions where as feedback from the common passengers can be helpful for the STUs for their renovation and improvement.
7. Social awareness should be increased to every passenger through advertisement and using display inside the bus.

XI. CONCLUSION

The government of West Bengal took a great role for providing roadway transport service by own fleet strength. Initially this service was very famous and popular to people of West Bengal. Later on government has been formed more State Transport Undertakings which has been providing transport services from last decades. STUs have taken a better role for providing service, so they have successfully operated uneconomical routes in rural areas and cross subsidized them with surpluses from the more remunerative routes. But STUs can take play a great role for improvement a region through their transport facilities, and they can also achieve profit through proper procedure. West Bengal is the high density state where passengers like journey by bus in rural and urban areas. Govt. of West Bengal has decided to merge three transport corporations CTC, CSTC and WBSTC for getting better result in future.

REFERENCES:

1. Bhaduri, Sukla (1992): Transport and Regional Development, A case study of Road Transport of West Bengal, *Concept Publishing Company. New Delhi. pp. 188-221*
2. Bhaduri, Sukla (2003): Mass Transport Service in Calcutta Metropolitan Area, Vaidya, B.C.(ed.), Geography of Transport Development of India, *Concept Publishing Company. New Delhi. pp. 147-166.*
3. Bhaduri, Sukla and Boral Eshita (2015): Nodal Network Analysis to Assess the Transport Efficiency through Highway in the State of West Bengal, *IJCRR, Vol. 7 Issue 19, Oct. 2015 pp 31-36*
4. Comprehensive Mobility Plan: Kolkata Metropolitan Area (2008): *published by Infrastructure Development Finance Company Ltd. & Superior Global Infrastructure Consulting Pvt. Ltd. August 2008.*
5. Gupta, Sudakshina and Halder, D. K (2002), Pricing of urban transport systems: a special reference to CSTC", Halder(ed), Urban Transport Pricing and planning, *Allied Publishers Limited in Collaboration with DSA centre for Regional Economic Studies, Department of Economics, Jadavpur University, Kolkata, pp.105-119*
6. Government of West Bengal (1975): *Annual Administrative Report of CSTC (1964-1972), Calcutta State Transport Corporation, Kolkata.*
7. Government of West Bengal (2010): *District Statistical Handbook of Kolkata, Bureau of Applied Economics and Statistics. Kolkata.*
8. Government of West Bengal (1961): *Statistical Abstract of West Bengal, Bureau of Applied Economics and Statistics. Kolkata.*
9. Ibid, 1975
10. Ibid, 1976 and 1977
11. Ibid, 1978-1989
12. Ibid, 1980-81
13. Ibid, 1990-91

14. Ibid, 1994-1995
15. Ibid, 1997-1998
16. Ibid, 2001-2002
17. Ibid, 2002-2003
18. Ibid, 2005-2006
19. Ibid, 2007-2008
20. Ibid, 2008-2009
21. Ibid, 2009-2010
22. Ibid, 2010-2011
23. Ibid, 2011-2012
24. Ibid, 2012-2013
25. Ibid, 2013-2014
26. Ibid, 2014-2015
27. Government of West Bengal (2015) *Statistical Abstract of West Bengal, Bureau of Applied Economics and Statistics, Kolkata.*
28. Gupta, Sudakrishna and Halder, D.K. (2002): Pricing of Urban transport reference to CSTC, Halder, D.K.(ed), Urban Transport Pricing and Planning, *Allied Publishers Limited in collaboration with DSA Centre for Regional Economic Studies, Department of Economic, Jadavpur University, Kolkata, pp. 105-260.*
29. Torton B, Black William R. (2001), "Inter Urban Transport" B. and Knowles R (ed), *Modern Transport Geography, Second revised edition, John Wiley and Sons (Asia), Singapore pp 163-164*
30. Mitra Soumen and Dr. Guha Niyogi Jayita (2012): *A Quick assessment Techniques to Determine Profitability in Private-City-Services-Case Study Kolkata-Howrah Urban Area, India. IJRMT ISSN: 2249-9563 Vol. 2 No. 4 August 2012*

Web Media

31. Calcutta State Transport Corporations (2012): https://en.wikipedia.org/wiki/Calcutta_State_Transport_Corporation accessed on 13 March, 2018
32. Calcutta Tramway Company (2018): https://en.wikipedia.org/wiki/Calcutta_Tramways_Company accessed on 13 March, 2018
33. South Bengal State Transport Corporation (2014): https://en.wikipedia.org/wiki/South_Bengal_State_Transport_Corporation accessed on 14
34. March, 2018