

CHANGING PROFILE OF STATE TRANSPORT UNDERTAKINGS IN MASS TRANSPORT SERVICES: A CASE OF KOLKATA CITY

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ABSTRACT

Dimensions of transport development in the city of Kolkata go through different phases and processes of socio-economic and political alteration. On the verge of modal transformation of road based Mass Transport Services (MTS) in the late fifties of the last century, both government and private buses dominated over the trafficscape of Kolkata. But the gradual privatization of bus services in the changing socio – political scenario engulfed the government organizations which ultimately lost its spectrum on the National State Transport (NST) scenario. At present the subsidy based State Transport Undertakings (STUs) of Kolkata is unable to cater the growing passenger demand even within the magnetic core of this city. The gradual deterioration of the government bus services should be revived in order to maintain the traffic balance, not only with the private buses of this city but also with other STUs of India. Hence, this paper attempts to compare and contrast the changing conditions of STUs with private bus services by analyzing its network affectivity, fickle economic performance and socio – political constraints in spatio – temporal framework. Attempt has also been made to identify the possible way outs and examine the veracity to survive and revive the STCs in the city of Kolkata.

Keywords: MTS, STUs, Private Buses, Network affectivity, Economic Performance.

INTRODUCTION:

The urban space of Kolkata city has a highly complex traffic pattern characterized by a multimodal public and private mass transport system. Basically, mass transportation in any city has unparalleled importance in the overall transportation system as improved levels of personal income and socio – economic expansion contribute to demand for increased mobility. Simpson (1980) has defined mass transport as “any means of passenger transport available to anybody without restrictions as to membership of any group, provided that the conditions of the operator are met, including payment.” It may be a public property or privately owned and run regularly with a carrying capacity of minimum 20 passengers to a time table. Inter and intra regional mass transport services for comparatively shorter distance are usually provided by buses and railway services. The public mass transport system is usually considered synonymous to transport for the poor. But recent studies in the developed countries have proved that it could be equally popular with the rich people (Blumenburg and Crane, 2004). Despite this fact, mass transport 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 vehicle or who cannot afford costly modes (Turton and Black, 2001). Kolkata is not an exception.

The centralized transport system of Kolkata Metropolitan City exhibits the dependency on mass transport services. In the multimodal mass transport system of Kolkata, both road based modes viz. buses, both state owned and private, mini buses, trams; and rails viz. suburban, circular and metro act as major modes of mass transport services. But Kolkata has a unique distinction of satisfying 13.10 million passengers (56 percent of the total passengers) on an average week day through road based mass transport services in comparison to the 4.70 million passengers (20 percent of the total passengers) through railway in 2011 (Table – 1). Such variation reveals the primacy of road based mass transport services at the city core. The extent of availability of and accessibility to such road based mass transport reflects the level of actual and potential mobility of people. Although the road based mass transport system in most of the developing cities is dominated by the public sector companies with certain degree of privatization, but such condition get reversed in case of Kolkata. Both government owned and private buses and trams are the major road based public transport modes of Kolkata. Calcutta State Transport Corporation (CSTC), Calcutta Tramways Company (CTC), and West Bengal Surface Transport Corporation (WBSTC) are the major State Transport Undertakings (STUs) owned by the state government in Kolkata with a total number of 1723 buses and 319 trams (in 2008). The privately owned buses are of normal and small sizes and popular as Private and Mini Buses respectively. In 2008, there was a total of 8840 private buses in the city of Kolkata which represents a powerful dominance over the public buses (Statistical Abstract of West Bengal, 2008). The traffic and transport scenario of Kolkata is experiencing a gradual privatization of most of the road based mass transport services. Since the initiation of the new millennium the overall performance of State Transport Undertakings (STUs) in Kolkata is declining significantly which not only ensures a serious socio – economic and political impact on the state transport scenario but also pose an alarming threat to the National State Transport sector of India.

TABLE: 1 MOVEMENT OF PASSENGERS THROUGH BUS SERVICES IN COMPARISON TO OTHER MODES IN KOLKATA METROPOLITAN AREA (AVERAGE WEEK DAY)

Transport Pattern	Modes	Volume of Passengers in millions (2001)	Percentage	Volume of Passengers in millions (2011)	Percentage
Road Based Mass Transport	Private Bus	8.50	45.50	9.40	40.00
	Public bus	1.25	6.69	1.60	6.81
	Mini Bus	1.25	6.69	1.60	6.81
	Chartered Bus	0.27	1.45	0.50	2.13
	Tram	0.20	1.07	0.50	2.13
	Total	11.47	61.4	13.60	57.88
Rail Based Mass Transport	Sub – Urban Railway	3.25	17.40	3.75	15.95
	Metro Railway	0.20	1.07	0.60	2.55
	Circular Railway	0.02	0.11	0.45	1.91
	Total	3.47	18.58	4.80	20.42
Para Transit	Taxi	1.10	5.89	1.70	7.23
	Auto Rickshaw	1.65	8.83	2.30	9.79
	Cycle Rickshaw	0.75	4.01	0.70	2.98
	Total	3.50	18.73	4.70	20.00

Water Based Mass Transport	Ferry	0.24	1.29	0.40	1.70
	Total	0.24	1.29	0.40	1.70
Total		18.68	100.00	23.50	100.00

Data Source: Computed by the authors from Master Plan for traffic and transportation in Calcutta Metropolitan Area (2001 – 2025), CMDA, 2001

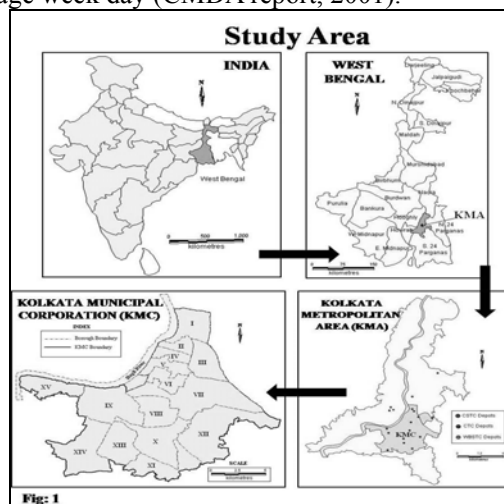
OBJECTIVES:

In this changing context of STUs, the basic objectives of this paper are;

- 1.To compare and contrast the performance of State Transport Undertakings with private bus services by analyzing their network affectivity, economic profile and socio – political constraints in spatio – temporal framework.
- 2.To identify the possible way outs to survive and revive the STUs in this city.

THE STUDY AREA:

The research work covers the city of Kolkata (Lat. 22°30' N to 22°37' N, Long. 88°18' E to 88°23' E), confined to the jurisdiction of Kolkata Municipal Corporation (KMC) including 141 wards and 15 boroughs and covering an area of 187.33 sq. km with a population load of 4.58 million (as per census 2001) and passenger load of 18.70 million on an average week day (CMDA report, 2001).



DATA BASE AND METHODOLOGY:

This research paper is based on a systematic analysis of secondary data, collected from CSTC, CTC and WBSTC offices, Public Works Department (PWD), Public Vehicles Department (PVD), Bengal Bus Syndicate office, Mini Bus Operator Coordination Committee offices and Calcutta Metropolitan Development Authority (CMDA) offices. For the comparative analysis of the public and private mass transport services, this research study is confined in the assessment of role of bus services. The temporal analysis is represented through simple cartographic techniques whereas the spatial analysis is confined within the jurisdiction of KMC region.

LITERATURE REVIEW:

In the academic sector, there is lack of specific papers on analyzing the public and private involvement in mass transportation systems in Kolkata. Pabitra Sengupta (1994) in his paper “Three decades of the Calcutta State Transport Corporation: A data based analysis” has studied the operational characteristics of vehicle utilization and financial performance through an elaborate statistical analysis from 1960 to 1990 where he identified both the positive and negative aspects of the functioning of CSTC, the then only public transport organizations. Ravinder N. Batta (2008) in his book “Economics of Road Transport” has focused on the significance of public transport systems in Indian cities and the causes behind the decline in public transport sector and gradual privatization of mass transport services in certain cities of India. Sukla Bhaduri (2003) in her paper “Mass Transport Services in Kolkata Metropolitan City” has provided a detailed data based analysis of functions and significance of both state owned and private bus services and also tram services including their changing nature

over time. D. K. Halder (2007) in his book “Studies in Urban Transport” has critically reviewed and compared the physical and financial performance of public and private buses with proper suggestions. 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 in compare with Private buses. The Master Plan for Traffic and Transportation in Calcutta Metropolitan Area (2001-2025) was published by the Calcutta Metropolitan Development Authority (2001) where a detailed plan for the up gradation and management of public and private Mass Transport services in Kolkata is mentioned.

AN OVERVIEW OF TRANSPORT SECTOR IN KOLKATA:

The development of Indian cities largely depends upon transport infrastructural advancement. The recent transport profile of India exhibits paramount dependency on personalized vehicles than mass transport services which is both economically and environmentally unsustainable for any heavily populated developing nation. Although traffic composition in India is of a mixed nature, but two wheelers and cars account for more than 80 percent to the total vehicular population in most of the large cities in India (Ramanathan, 2004). On the contrary to this, the most viable road based mass transport mode i.e. buses account for a very meager percentage. Analysis of data presented in table 2 reveals that, during 2000, there was tremendous imbalance between percentage share of personalized vehicles and bus services. In Kolkata, 80.95 percent of personalized vehicle rules over only 1.29 percent of bus fleet strength.

TABLE: 2 PRIVATE AND PUBLIC TRANSPORT VEHICLES IN MEGA CITIES IN INDIA, 2000

Megacities	Population (in millions)	Total Vehicles	Two-wheelers	Cars (including jeeps)	Percentage of personalized vehicles	Buses	Percentage of Buses
Greater Mumbai	16.37	9,69,680	4,07,306	3,25,473	75.57	15,414	1.59
Kolkata	13.22	6,64,046	2,98,959	2,38,560	80.95	8,586	1.29
Delhi	12.79	34,23,474	21,84,581	8,69,820	89.22	37,733	1.10
Chennai	6.42	11,49,626	8,48,118	2,07,860	91.85	4,409	0.38
Bangalore	5.69	15,49,695	1,16,4204	2,38,374	90.51	6,380	0.41
Hyderabad	5.53	9,50,624	7,57,684	99,314	90.15	2,539	0.27

Data Source: Computed by the authors from Transport Research Wing, Ministry of Road Transport and Highway, Government of India, New Delhi, 31st March, 2001.

The city of Kolkata has witnessed tremendous growth in vehicular population mainly after 1981 in accordance to population growth. The rapid process of urbanization along with the politically influenced socio – economic transformation supported the expansion of transport services that itself accelerated the degree of demographic mobility. The significant fact can be observed regarding the degree of expansion of bus services i.e. only three times in comparison to total vehicular growth (near about 11 times) in this city. Urban population in this city has increased from 0.29 million in 1961 to 4.57 million in 2001 whereas the bus services increased from 3085 to 9288 in relation to total vehicular growth from 68,849 to 7, 62,924 for the same period. The continuous growth of economic activities and passenger mobility with the geographical expansion of this city resulted into rapid rising trend of total vehicular population to meet the increasing travel demand. The last sixty years after independence of India was characterized by substantial growth of urban population supported by vehicular population which was the outcome of economic pull factor of this city in the global perimeter. (Table: 3)

TABLE: 3 GROWTH PATTERN OF HUMAN AND VEHICULAR POPULATION IN KOLKATA (1961 – 2001)

Year	Population	Growth Index	Total Vehicles	Growth Index	Buses	Growth Index
1961	29,14,412	100	68,849	100	3,085	100
1971	31,36,391	107.62	92,043	133.69	2,161	70.05
1981	32,88,148	112.82	1,70,816	248.10	3,172	102.82
1991	43,85,176	150.47	4,76,745	692.45	5,684	184.25
2001	45,72,876	156.91	7,62,924	1108.11	9,288	301.07

Data Source: Computed by the authors from Statistical Abstract of West Bengal (1961, 1975, 1978-89, 1994-95 and 2005).

In spite of having fragile strength in comparison to total vehicular growth, bus services still dominates on the mass trafficscape in the city core of Kolkata as far as the total passenger strength is concerned. But the fleet

strength of bus services varies between public and private organizations. A strong primacy of private buses occurs in the city core of Kolkata where the strength of privately owned buses (81.57percent) is much higher than public or government buses (18.43 percent) (Table: 4)

TABLE: 4 FLEET STRENGTH OF BUS TYPES IN KOLKATA, 2001

Bus Types	Fleet Strength	Percentage
Private Bus	6,393	68.83
Mini Bus	1,183	12.74
Privately Owned Buses	7,576	81.57
CSTC	1,268	13.65
CTC	356	3.83
WBSTC	88	0.95
Publicly Owned Buses	1,712	18.43
Total	9,288	100.00

Data Source: Computed by the authors from Statistical Abstract of West Bengal, 2005

TEMPORAL ASSESSMENT OF PERFORMANCE OF STATE TRANSPORT UNDERTAKINGS (STUS) IN KOLKATA:

The moribund scenario of STUs is the outcome of last fifty years functioning pattern in a complex socio-economic framework of this city. In the initial phase of urban transport development in Kolkata, passenger movement was dependent mostly on the mass transport services, where the State Transport Undertakings (STUs) ruled over it. The establishment of STUs in Kolkata in 1948 did an enormous service in intra – urban as well as inter – urban and village connectivity. But as time passed away, the STUs lost its glory and became a burden for the government. Such transformation of STUs can be analysed in a temporal framework based on the changing performance pattern in the context of entire bus transport picture. Since the emergence of bus services in 1920 in Kolkata, the entire period of STUs can be categorized in to four successive phases viz.

1. Initial Phase – From 1920 to 1960
2. Rising Phase – From 1960 to 1970
3. Competition Phase – From 1970 to 2000
4. Declining Phase – 2000 onwards

THE INITIAL PHASE (1920 – 1960):

The initiation of bus services in Kolkata was based on private operators. In 1920, private bus service was started by The Calcutta Tramways Company, which was then a private organization and individually by a person, known as Abdul Shovan. Later on, in 1925, Bengal Bus Syndicate and in 1926 the Walford Company started bus services privately. The first 28 years of bus services in Kolkata was under private organization. On 31st July, 1948, the State Transport Undertakings (STUs) under the directorate of Transportation, government of West Bengal was established in the form of an organized public sector. Thereafter a separate transport corporation was formed by the government under the Road Transport Corporation (RTC) Act, 1950. It introduced bus services on six different city routes with 25 petrol driven single decker buses (Bhaduri, 2003). In 1949 – 1950, diesel era started with the acquisition of the double decker buses, brought from England. Within the decade of the enactment of the RTC Act, the need to set up a Road Transport Corporation for the city and the neighbourhood areas was keenly felt so that the Corporation would be able to take expeditious decisions to efficiently run a commercial venture. This resulted into the formation of a semi – autonomous unit i.e. the Calcutta State Transport Corporation (CSTC) on 15th June, 1960, under the RTC Act, 1950. The establishment of this STU has had some socio – economic reasons in the then political context, which can be mentioned as –

- a) After Independence in 1947, the population of the Kolkata city grew very fast due to influx of population from East Pakistan (now Bangladesh). Thus in order to meet the increased passenger service demand, government of West Bengal decided to take over the transport services of the Calcutta city in its own control, mainly for passenger services (Halder, 2007).
- b) To employ people (mainly immigrants) at large in the public undertaking.
- c) For vote bank in the newly independent country.
- d) To take the advantage of economic profit from the growing passenger demand at the city core.

- e) For systematic development of transport services to meet the growing passenger demand under government undertakings.

With the growth of the fleet, the CSTC faced competition from private operators. In order to oust the private operators from certain routes, the state government of West Bengal in 1954 progressively made Nationalization of routes. This became a definite and phased programme in 1955 – 1956, when the planning commission recommended gradual nationalization of transport services all over the country. The government decided to run the buses in the areas which were not being served by the private operators. After the nationalization of routes, this STU gradually acquired all the bus routes of Kolkata city for itself and consequently all the private buses compelled to start their services in the sub – urban areas of Kolkata (Statistical Abstract of West Bengal, 1961).

THE RISING PHASE (1960 – 1970):

From the date of inception, the management of the city transport run so long by the government, was transferred to the Corporation. During the early years of its establishment, CSTC fleet consisted mostly of imported double decker and heavy duty single decker buses. Between 1964 and 1967, the CSTC enjoyed the virtual monopoly of all intercity routes. But the CSTC could not take full advantage of it. In the year 1966 – 1967, CSTC nationalized about 90 percent of the city routes, but due to financial constraints, the Corporation could not cope with the ever increasing passenger demand. In December, 1966, there was a huge combined strike of CSTC and Tram workers of CTC that led to severe transport problem in the city core. Due to huge passenger pressure and lack of supply of buses, government of West Bengal temporarily sanctioned the private bus services within the city core which gradually transformed into a permanent sanction. Since then, the private bus services have continued to increase day by day and pose serious threats to the government buses. Up to 1966, most of the 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 within the corporation limit of Kolkata. As on November, 1966, the Corporation had an invested capital of approx. Rs 91 million with reserves of Rs. 32million. About 12000 persons were employed including 1000 persons in the central workshop (Statistical Abstract of West Bengal, 1975).

TABLE: 5 PERFORMANCE OF CSTC (1960 – 1970)

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

Source: Computed by the authors from Annual Administrative Report of CSTC (1964 – 1972)

As regards rural bus services, CSTC introduced the operation of its first long distance bus services (LDS) on the Calcutta – Digha route, on and from 14th April, 1968 mainly to meet the increased demand of interior parts of different districts. Over this decade, the number of staff increased from 8820 in 1960 – 1961 to 13171 in 1969 – 1970 i.e. 49.33 percent within ten years. The operational and serviceable fleet faced severe competition with private bus services mainly after 1967 and some other infrastructural and economic hindrances, and therefore started to decline. Improvement in terms of average per km per bus per day was also ended within 1965. Basically CSTC had registered profit in the first two years of its inception i.e. 1960 – 61 and 1961 – 62. Since then it has been incurring losses out of its operation. Due to huge competition with the private bus organizations, the passenger demand gradually started falling since 1962 (table: 5).

THE COMPETITION PHASE (1970 – 2000):

The thirty years from 1970 to 2000 witnessed a gradual transformation of dominance pattern of public and private bus transport services. CSTC ruled over the mass trafficscape up to 1976 with a fleet strength of 1331 buses whereas, private buses were just a little below of it with 1104 number of buses. But the entire scenario was totally changed in the next year when number of private buses exceeded the CSTC buses which is

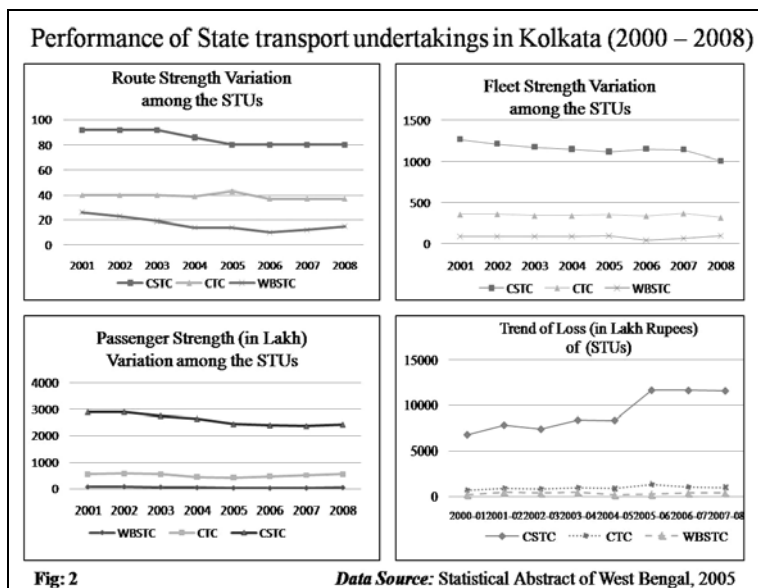
continuing till date. Basically CSTC dominated in the public sector and had the strength to compete with the private buses. There are other four more public transport organizations in West Bengal. The first one i.e. the North Bengal Surface Transport Corporation (NBSTC) was formed on 15th April, 1960 to cater the passenger of northern part of west Bengal while the South Bengal Surface Transport Corporation (SBSTC) previously known as Durgapur State Transport Corporation (DSTC) was formed in 1963 for smoothening the passenger movements in southern part of this state (Bhaduri, 1992). Later on, West Bengal Surface Transport Corporations (WBSTC) and The Calcutta Tramways Company (CTC) had taken venture by introducing bus services both for the city and long distance services from 1992. But, afterward a group of problems emerged due to economic and infrastructural inefficiency along with inadequate and improper government policies that led to decrease in the number of buses, routes, workers and ultimately the passengers in the public transport services. Such scenario had its origin mainly from 1976 when first decrease in the number of buses in CSTC led private buses to exceed over its fleet strength. The rapid growth of number of private buses from 9414 in 1981 to 23,892 in 2001 made it the most acceptable and profitable mass transport service in the city core of Kolkata. The high frequency of private buses was later on associated with the Mini buses (started in 1972) that collectively cause severe threat to CSTC, and other government buses that plied in Kolkata (table: 6).

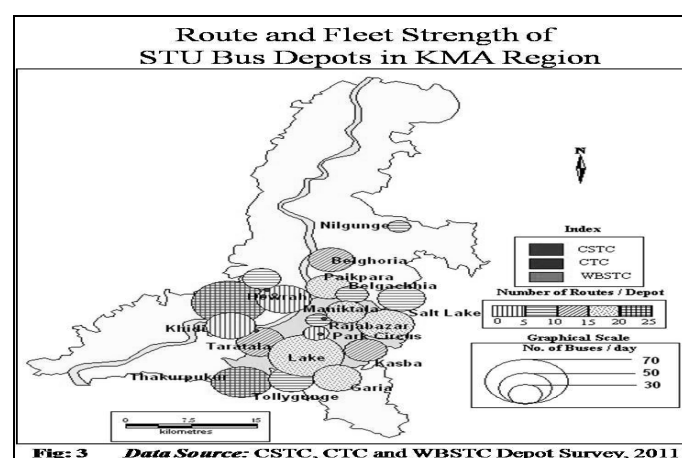
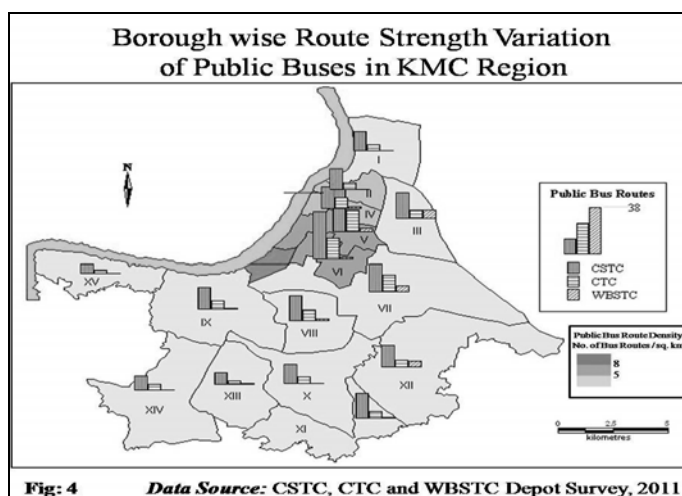
TABLE: 6 FLEET STRENGTH VARIATIONS AMONG DIFFERENT BUS ORGANIZATIONS IN KOLKATA (1970 – 2001)

Year	Government Buses					Privately owned buses	
	CSTC	CTC	WBSTC	NBSTC	SBSTC	Private Buses	Mini Buses
1970-71	1059	-	-	232	107	1002	-
1974-75	1436	-	-	327	141	1192	108
1980-81	1099	-	-	373	151	1566	507
1984-85	1107	-	-	330	201	4023	867
1990-91	1196	-	-	870	472	4292	896
1994-95	1205	215	19	971	633	5486	921
2000-01	1268	356	88	910	547	6393	1183

Source: Statistical Abstract of West Bengal (1961, 1975, 1978-89, 1994-95 and 2005)The Declining Phase (2000 onwards)

The first ten years of this new millennium were economically unfavourable for STUs which exhibits a declining trend in the mass transport scenario of Kolkata. In the public transport sector, being the oldest organization, CSTC still dominates over CTC and WBSTC bus services mainly in terms of fleet, route and passenger strength (fig: 2).





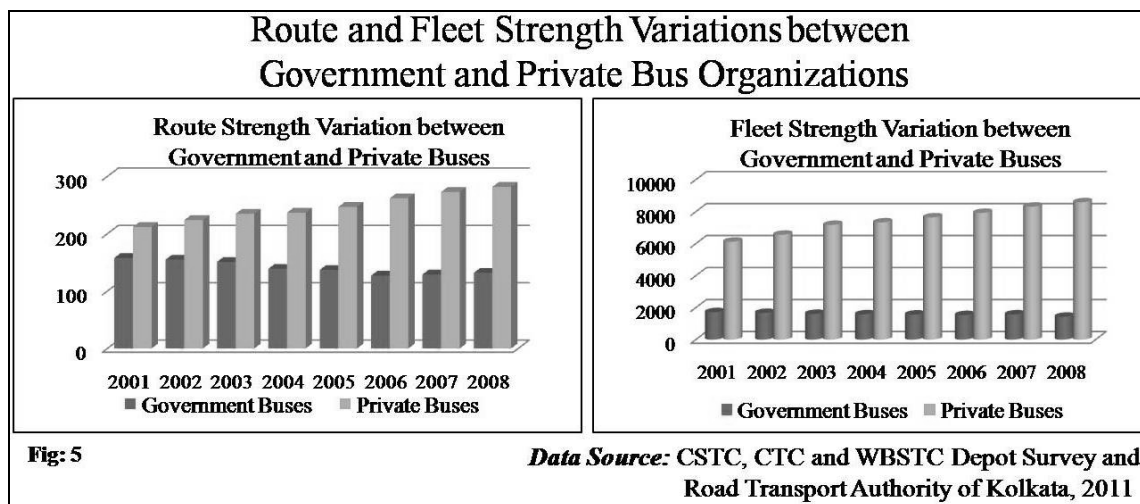
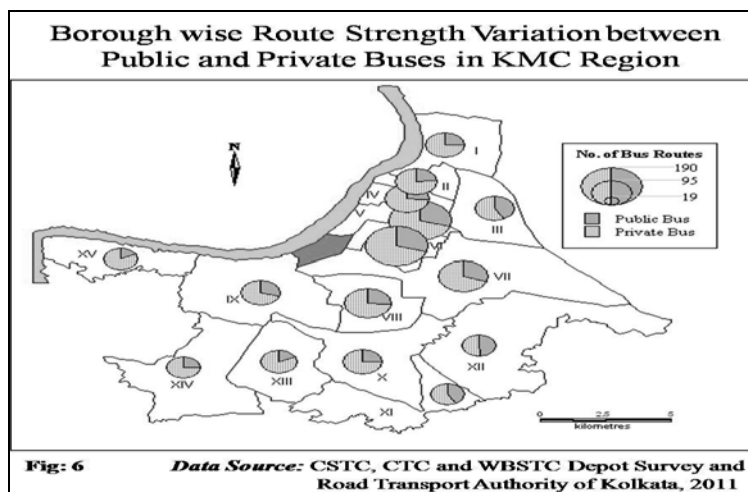
The pattern of declining trend of all the STUs in the first eight years of the new millennium can be observed in fig 2. While the service level is decreasing, the loss is gradually increasing that will ultimately lead to permanent abandonment of the STUs in near future. At present in Kolkata, there are 11 CSTC bus depots along with six CTC depots and two WBSTC depots which all provide buses both for the city and long distance services. Among these 19 STU bus depots (fig: 3), 12 depots are located within the KMC boundary. Howrah, the twin city of Kolkata has three bus depots of each organization. Salt Lake, the sister city of Kolkata has two depots of CSTC and WBSTC. Maximum route strength among the depots is observed in case of CSTC Howrah depots with a fleet strength of 68 buses per day. CTC and WBSTC have comparatively low variety of bus routes with poor modal influence. The locational pattern of the depots shows concentration in the KMC region to provide better bus service in the city core.

In case of the route strength of the public buses, each borough shows dominance of CSTC bus services where maximum public bus route density is observed in borough V and VI with highest route variety (fig: 4). This is the Central Business District (CBD) zone of Kolkata with extreme urban space utilization and is intensely interconnected with the Howrah city. Most of the peripheral boroughs (I, IX, XIV and XV) exhibit weak conditions of the public bus services in spite of the fact that, in recent context of urban expansion, passenger concentration is increasing in these areas. Public bus network should be improved in these areas to cater the growing passenger demand with time.

PUBLIC VERSUS PRIVATE BUSES:

In the last ten years, there was a steady growth of Private buses in terms of fleet strength, route variety and passenger pressures whereas all the STUs' profile shows a declining trend. The route variety of STUs become stagnant from 2005 mainly due to unequal competition with the private buses which are easily getting route permits from Route Transport Authority (RTA) of West Bengal without analyzing the passenger demand pattern of the concerned area. The annual expenditure of all the STUs consisting of fuel costs, infrastructural costs, maintenance cost, staff cost, incentives etc are increasing day by day than the amount of earning from the daily ticket sell. Such a fragile

economic condition can only be sustained with the financial support known as subsidy from the state government. With increasing expenditure, it would be difficult to recruit new workers. There are also a large number of temporary workers and contractors to whom the STUs are paying a huge amount of money. But due to recent fund crunch, the workers' strength is decreasing. Passenger pressure also decreases due to high competition with private buses. Private buses cater maximum number of passengers mainly by providing more frequent bus services in a good variety of routes and Kolkata metro being the most travel time saving mode also attracts many passengers. On the contrary, all the STUs have fixed and limited bus routes with a very poor infrastructural strength and have to run buses based on some government rules.



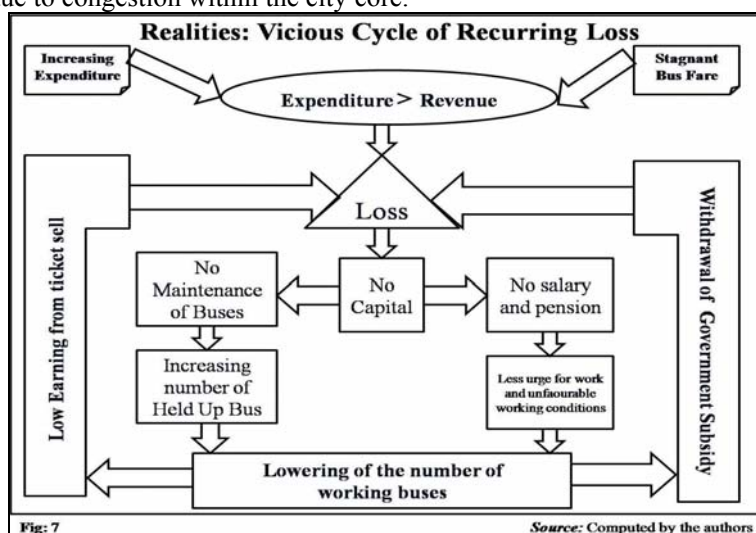
The STUs, as on record, suffer continuous loss where as the private undertakings run side by side with a profit. The prima facie evidence gives impression that the STUs are run inefficiently and their private counterpart run relatively more competently. In the last ten years there was a slow but gradual decline in case of route variation and fleet strength of the STUs which is diametrically opposite to the conditions of private buses. Detailed analysis in this regards in terms of passenger strength and economic gain is not possible due to paucity of data in case of private organizations. But it is evident from the route and fleet strength variations that financial gain due to high frequency of buses is in favour of private buses, although it does not imply a good operational efficiency (fig: 5). In case of spatial strength analysis, the borough wise route dissimilarity shows the dominance of private buses on all of the 15 boroughs of KMC where maximum bus route potency is observed in borough V and VI (fig: 6). Private buses provide much more flexibility in operation than the public buses with standard frequency of buses and route variations. Route changes are comparatively simple depending on the availability of private buses as it permits convenient adjustment in services with changing pattern of passenger's demand. But private buses are faced with more difficult operations than public buses since private buses are required to make a considerable number of weaving and merging movements due to frequent stops. At present, maximum routes are under private bus services system. Even new routes are emerging frequently due to increasing

passenger demand in some distant peripheral areas and high competition among the private bus owners. The private bus operation has undoubtedly helped considerably to meet the growing deficiencies in mass bus transportation services (Traffic and Transportation Plan for Calcutta Metropolitan Area, 1967).

MAJOR PROBLEMS BEING FACED BY STUS:

Since inception, STUs have been on the record of limping or nil achievement mainly due to a group of factors viz.

1. Non availability of fund to the desired level has been acting as a stumbling block in case of undertaking any major change in the line with long term planning and this has probably debarred STUs from taking any initiatives on its own to formulate corporate plans, programmes for promotion and development of the infrastructural network.
2. STUs are now facing an unequal playing field competition with an enormous number of private operators.
3. For smooth operation of buses, the coordinated effort of man and machine is a precondition. STUs have been trying to replace old buses with new ones. But, the average age of buses in Kolkata is more than seven years where as in other states it is three years. Similarly, the huge chunks of age old buses are not able to cater to the passenger pressure while maintaining high travel speed and efficiency.
4. Fresh induction of operation staff is not being done. The STUs have not been able to recruit operating staff as per requirement since 1990 due to restrictions imposed by the state government.
5. Inefficiency and lack of future projection of the state government led to the sanction of permission for plying private buses on new and old routes within the city core. There is no special route totally dedicated to the STU bus services.
6. Salary of drivers and conductors are too high in comparison to that of the private buses that led to continuous loss of the organizations.
7. Daily average operating costs of buses are high in case of STU bus services.
8. All of the costs including fuel, lubrication, parts etc are increasing day by day where as the fare rate is stagnant from the last six years that led to serious losses to the STUs.
9. Extra loss incurred by STUs for providing amenities like – continuous operation of the public buses even in off-peak and late hours at night or travel concessions for students, physically handicapped, freedom fighter, MLAs and MPs etc. Even employees of STUs of West Bengal are allowed to travel by city public buses free of cost.
10. Huge trip loss due to congestion within the city core.



11. Inefficient and age old disabled drivers and conductors who are not physically fit continue to operate bus services in a profitable way.

Basically, a vicious cycle is revolving around the extant situation of all the STUs mainly after the subsidy related decisions taken up by the new state government. All the STUs have been running based on subsidy from the state government since their inception. The earning from ticket sell of all the STUs are much less than the total expenditure covering fuel, lubrication, parts, maintenance, premium, salary etc. To sustain the STUs, government is required to continue the subsidy, most of which mainly goes for making the salary of the employees. In 2009, the subsidy was near about Rs. 10 billion per year which rose up to Rs.60 billion in 2011. It becomes difficult both for the former and the present government to provide this lump sum amount continuously to all the STUs. Thus after the political realignment in West Bengal after 35 years in 2011, the new

state government became strict regarding this subsidy issue and took a strong step to curtail such huge expenditure from the budget. Such sudden termination of subsidy is not seemed to be appropriate for revival of the STUs in the present transport scenario. The government asked the STUs to become self reliant, but they are not coming with steps which will help them to generate their own funds. The STUs have also been asked to submit plans that will enable them to be self dependent. Agitation and legal issues have been cropped up as the outcome of the subsidy issue and after the suicide case of a contractual labour of CTC, government agreed to continue salary but temporarily for the next six months – within which the STUs have to start operating individually after identifying and implementing the developmental way outs. Basically, government needs Rs.3000 crore to clear the backlog but it is difficult to get such a huge amount. Earlier STUs were getting 80 percent operating cost from subsidy which is now reduced down to 75 percent.

The entire situation can be manifested into a simple schematic representation (fig: 7) where the loss incurred by high expenditure than revenue is aggravated due to discarded subsidy. The cumulative effect leads to lowering in the number of working buses on the roads which means low earning from ticket sell and again loss. On the other side, the state government also decided to help the STUs only after they can show their potentiality in the mass transport services.

RESTRUCTURING OF STUS:

1. There is an ardent need to improve the present conditions of STUs by identifying major weak parts and reform developmental perspectives in different aspects, like -
2. Reduction of Costs by implementing Voluntary Retirement Scheme (VRS) for excess labour and by reducing number of workers per Bus ratio.
3. Generation of Revenue for which efficiency in- ticket checking system should be initiated. Preparation of budget and action plan to generate income from STU properties, though not necessarily by selling them is now under serious consideration. Authorities are trying to use commercially the unutilized spaces of the STU bus depots by constructing Parkomats, restaurants, ATM booths, departmental stores, tea junctions etc.
4. Network Development of the bus services by identifying viable and non – viable routes, closing of unprofitable routes, changing of bus timing, lowering of the number of buses on some unprofitable routes or reasonable number of buses per route based on passenger demand is of utmost requirement.
5. Infrastructural Renovation which can include conversion from non-euro and *Barat Stage* -I, II buses to *Barat Stage* – III and IV buses, proper depot and terminus management, regular monitoring of buses, initiation of sustainable buses like – CNG, Battery buses, initiation of double decker buses to increase carrying capacity and launching of air conditioned buses to cater cream of the city passengers (Halder, 2006).
6. Up gradation of work participation such as age determination of workers and categorization according to their skills, regular medical check up mainly of the drivers, rotationalization of duty hours, controlling of rash driving etc.
7. Proper Management should be prioritized by forming mentor groups for the transport sector. Regular depot survey by the officers is necessary to report the existing conditions whereas feedback from the common passengers can be helpful for the STUs for their future renovations and improvement. Invitation of private organizations to jointly run the public buses is of prime need.

CONCLUSION:

Kolkata has a highly complex mass trafficscape characterized by a multimodal bus transport system of both public as well as private sectors. In this context, bus transportation system at an affordable cost with reasonable comfort, safety and frequency and high degree of connectivity is universally desirable. Since the number of people concerned is very high, a minor mistake in planning of mass transport modes will have amplified effect on various factors which cause enormous damages to the society which sometimes could be estimated in terms of money. While STUs in other states and cities are running with making profit for their states (like BMTC in Bangalore, BEST Bus in Mumbai etc), it is the duty of the state government of West Bengal to formulate master plan for the renovation of all the STUs only not by withdrawing the subsidy support. At last, patience is required for observing the changing scenario of STUs after the completion of six months according to the mentioned government agenda.

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