

# A Study of Failure and Rise of Surat City Bus and its Impact on Surat Residents

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**Abstract:** Surat city is the one of the largest megacities of India which is having population of 6 million and more. But, here, people used to prefer private vehicles over public transportation facilities such as city bus. So, here there are reasons mentioned over this occurrence and how SMC is tackling and overcoming these challenges to decrease traffic congestion and to make India's one of the best Bus transportation services among commuters and private vehicle owners.

**Keywords:** urban transportation engineering, city bus, traffic problem solution for commuters, progression of modified mode of Transportation in Surat city of India

## 1. Introduction to Surat City

### 1.1 Background

Surat is a city in the Indian state of Gujarat. It used to be a large seaport and is now a center for diamond cutting and polishing. It is the eighth largest city and ninth largest urban agglomeration in India. According to the 2011 India census, the population of Surat is 4,462,002.

Population density of Surat City is 14000/km<sup>2</sup> and also it carries tropical humid climate throughout most part of the year. The city was at the peak of progress till the dawn of Bombay port in the 19th century. While there was a bottom position in Surat's economy since 1901, the foundations for the growth in the city was laid in the 60's with the spread of diamond trade, the gradual turn in the economic base into zari and textiles (power looms), and the intensification of oil and gas searching activities. Today, addition to the traditional industries of textile manufacturing, trade, diamond cutting and polishing industries, intricate zari works, the base has expanded to gas-based industries at Hazira which is 25kms away and at seashore of Arabian Sea.

### 1.2 Importance of Study

- To know the impact created by proper functioning of Urban Transportation System towards localities of Surat City.
- For future planning of Urban Transportation System in the city.
- Whether to bring new public transit system or not according to demand of population of city.
- For town planning of the city routes.
- To get information about the public transportation functioning efficiently on a large scale.
- To know about management done by staffs of Surat City Bus and SMC and their contribution towards taking to such a remarkable level.

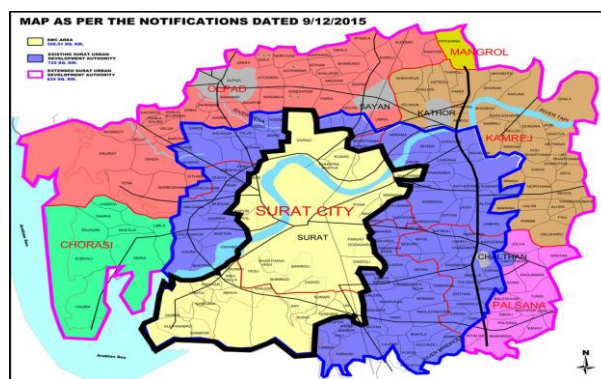


Figure 1: Surat City Map

Source: www.utbenchmark.in

### 1.3 Demographic Profile

This table will render an overview about surging of Population due to beforementioned reasons.

Table 2: Demographic Profile  
(Source: www.utbenchmark.in)

AREA	1981	1991	2001	2011
Surat Municipal Area				
Area (sq.km)	55.56	111.16	112.27	322.51
Population	776583	1498817	2433785	4462002
Decadal Growth Rate (%)	-	93%	62%	83%
Pop. Density (per sq. Km)	13977	13483	21678	13835
Provisional Population, Census of India (2011)				
Surat Urban Development Area				
Population	985077	1786566	3090686	4,585,367
Decadal Growth Rate (%)	-	81%	73%	69%

## 2. Surat City Bus

### 2.1 Introduction to Past

In 1997, the Surat Municipal Corporation had sent a feasibility report to the Government of Gujarat, for privatization of bus services in Surat city. Existing services being operated by the state-run Gujarat State Road Transport Corporation (GSRTC) were found to be loss-making and insufficient for the city. Surat City Bus is the name under which city buses are operated in Surat, Gujarat, India. It is

operated by a private entity under a public private partnership model for the Surat Municipal Corporation (SMC) following model of Ahmedabad Municipal Transport Service (AMTS).

Moreover, in August 2007, the SMC entered into an agreement with a private entity to provide bus services for a period of five years. The Red Line bus service was started in 2007 in public private Partnership, Barmecha and Mahendra Sons. The sole operator of Red Line buses, had introduced over 120 buses on various city routes.

## 2.2 End of Redline Buses and Reasons

However, owing to various inefficiencies and clashes between private firm and municipal corporation Surat localities saw an end of this redline bus services. Also, other causes are mentioned below.

- Gradually, the number of buses decreased because firm suffered heavy losses.
- Improper way of functioning of contract as the private firm were unable to increase ticket cost as per sudden increase of CNG (fuel) cost.
- Due to less or no funds there was no kind of maintenance of buses which degraded its quality.
- There was a huge gap between SMC and Bus service provider.
- Bad experiences by passengers due to negligence by bus service
- Improper way of functioning as the private firm were unable to increase ticket cost as per sudden increase of CNG cost due to slow or rigid process by SMC.
- Only 20 buses were operating during the end of the contract which affected at least 80,000 commuters.
- After facing negative comments and low support from authority Redline Final bus operated on 15 May 2013.

## 2.3 Reborn of Surat City Bus in new form

### 2.3.1 Introduction

Surat Municipal Corporation had prepared a Traffic & Transportation Master plan through Central Road Research institute, New Delhi, of which 80 % recommendations were implemented in 2014 also a Traffic plan has also been prepared by the same institute. The growth and progress of a nation and city also depends on such sustainable Transport system. 80 % & more passengers and 60 % of the goods is transported through roads. We can say Road Transport is a fundamental need of the Surat residents. Again, Surat Municipal Corporation had started city Bus operations on public private partnership basis by the end of June 2007.

### 2.3.2 Bus Road Network

Surat Municipal Corporation (SMC) proposes to provide last mile connectivity to majority of 50 lakh people living in the city within the next two years by pressing into service 600 new buses, including, 25 mid-sized BRTS vehicles, under its new transport policy.

SMC had issued tenders for 575 city buses, chassis for which were purchased at a cost of Rs140 crore. At least 1,000 city buses will be plying by April 2017 on city roads.

## 2.4 Present Scenario of Surat Bus Service

### 2.4.1 Introduction

Surat ranks 4th in a global study of fastest developing cities in the world. The area of Surat city within Municipal Corporation limit is 326.515 sq. km. and its population as per the census of 2011 is 44,66,826. Today our major problem is traffic congestion, particularly near the Railway station area and many peak traffic areas which has less adequate space and less traffic sense results in havoc among commuters. For example, 1min journey can take 10minutes during commute hours.



Figure 2: Sitilink Surat city blue bus

### 2.4.2 Intelligent Transit Management System for Surat

Surat Municipal Corporation (SMC) recently awarded the contract to design, implement and operate a city-wide integrated platform for its various transportation needs, to ARS Traffic & Transport Technology (ARS T&TT). The scope includes operations of public transportation including BRTS and city buses and management of vehicles operating for other civic services such as solid waste, engineering and emergency services. The other key business objectives that SMC aims to achieve with the implementation of the system are noticeable economic benefits and convenience to the citizens through reduced journey times and increased reliability, improvements in safety and quality of air, easier service accessibility, increased citizen trust in civic services and better operations management capability. As a part of this contract ARS T&TT is entrusted to manage the real-time tracking of 160 BRT buses, 200 city buses and over 500 other departmental vehicles such as such as solid waste, engineering and emergency services. The scope also includes management of four BRT bus depots for SMC. It is also within the scope of ARS T&TT to manage the delivery of real-time travel information about bus service numbers, arrival/departure times, unplanned and scheduled changes etc. for commuters through over 100 passenger information displays installed at the BRT stations and over 800 displays installed at city bus stations in Surat. Commuters can also access this information through the SMC website & mobile app provided by ARS T&TT.

**2.4.3 Features of SITILINK App developed by SMC for travelers**

Simple yet effective features of this app are given below in the form of different diagrams



Figure 3 Homepage of app



Figure 4 Bus routes search page



Figure 5: A View of Routes with Bus Stops Nearby



Figure 6: Lists of Stops in Particular Bus Route

**2.5 Impact of Bus transportation System on Surat City and its citizens**

Surat’s stellar show comes at a time when most city bus entities including the DTC are facing huge challenge to increase bus ridership. While in November 2016 the Surat Sitalink got only 3,000 riders per day by August 2017 it increased to about 65000 and above an over 20-fold increase in ridership. A combination of savvy pricing and smart technology has meant that the service, Surat Sitalink Ltd, launched less than a year back by the municipal body has succeeded in attracting 93% passengers, many of whom were earlier using auto-rickshaws and two-wheelers. Average daily revenue also increased from Rs 46,000 to Rs 6 lakh during this period.

In 2018, Surat Municipal Corporation was chosen for the 'Best City Bus Services Award' by the Centre at urban mobility conference in Hyderabad. This is being done to check vehicular pollution in crowded areas. Besides keeping the fare low at Rs 4 as the minimum ticket amount to compete with polluting shared auto-rickshaws, the city administration has also introduced intelligent transit management system for real time monitoring of buses, emergency and other department vehicles. A robust live IT system has been put in place for automatic vehicle location, incident management and for monitoring of all equipment from the control centre.

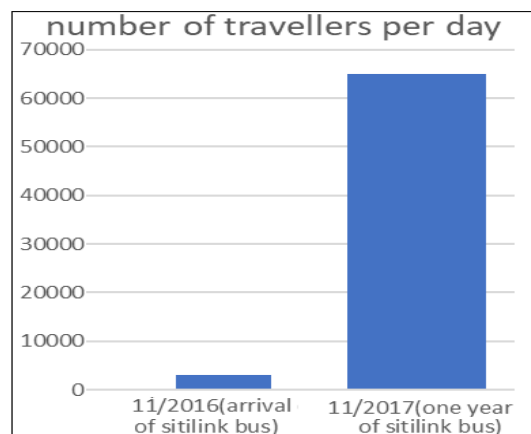


Figure 7 Chart showing fold rise in commuters

## 2.6 Comparison Between Present and Past scenario of city bus

As per survey conducted by the author among many peers using bus transportation since long time in table it is shown in table below on the next page.

**Table 3** Comparison between Present and Past scenario of city bus

Sr. No.	Criteria	Past	Present
1.	Number of Buses	120 and less	350 and above
2.	% of conversion from private vehicles and auto rickshaws	40-50%	80% and above
3.	Coverage of city area (in %)	60-70%	90%
4.	Service	Below average	Good
5.	Punctuality	Not Punctual	Much Punctual
6.	Frequency	Bus arrives between every 20-25 minutes	Bus arrives between every 10-15 minutes
7.	Cleanliness	No	Yes
8.	Staff Behavior	Below average	Good
9.	Customer Review(out of 5)	2.5	4.3
10.	Name of Contractor	Barmecha and Mahendra Sons.	Rainbow Travels Pvt. Ltd and SMC

## 2.8 Advantages with Surat City Bus

- The passenger number has risen from 3,000 to 65,000 and the SMC's revenue, too, shot up from Rs46,000 to Rs 6,00,000 daily.
- The ministry said that in Surat city the model shift of passengers from auto rickshaw to city bus is about 86.91%. 6.18% of two-wheel passengers, 0.67% of car users and nearly 5% of other passengers have started using city buses.
- It consists of 275 buses and runs on 28 different routes, covering 85 per cent of urban area since launching the city bus service.
- Due to high traffic in the city many commuters prefer bus service over other services in the City
- Timing performed by bus providers are almost accurate due to modern technologies like GPS.
- Strict supervision by officers during bus transit made the relation between traveler and bus provider transparent and stress free.
- Transportation cost is economical such that minimum fare is 4rs and over long distance for instance from D-mart, Adajan to Railway station(7.4km) it costs 13rs.
- Buses arrives at station at frequent intervals; For every 10 minutes new bus arrives.
- Passenger service by this bus service has reached a new basic level for passengers.

## 3. Conclusion

- SMC by its efforts and concern about its citizens has reached from none to some new level.
- SMC had finally followed AMC's model of city bus.

- Technology increases transparency in system between citizens and civic bodies like SMC.
- SMC management and services has made a new example to convert private vehicle users to public vehicle users.

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## Author Profile



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