

FEASIBILITY STUDY OF FEEDER ROUTE FOR BRTS CORRIDOR: - NARODA GAM

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Abstract— Freight transportation is very important for development of nation. Generally Freight Transportation on highway is carried out by trucks. The aim of this paper is to developed truck trip generation model for Mehsana GIDC. The company travel diary survey has been carried out by company by the survey. The model has been developed using multiple linear regression analysis by SPSS software, which establishes relationship between the daily number of truck trips generated by the total floor area of industries, total number of HCV on owner and weight of HCV. A general model for truck trip generation has been developed. The model result gave an effective value of R^2 equal to 0.812, indicating that the explanatory variables included in the model explain 81.20% of the dependent variable. The model also validated by road side interview survey. Accurate forecasting of future truck trips using this model.

Index Terms- Freight transport, truck trip, truck trip generation

I. INTRODUCTION

An increase in population generates increasing in travel demand. India as one of the most populated countries in the world faces a large number of travel demand. An increased road length and new roads generate faster and longer trips, more trips by car and higher car ownership all of which adds up to more traffic congestion and pollution.

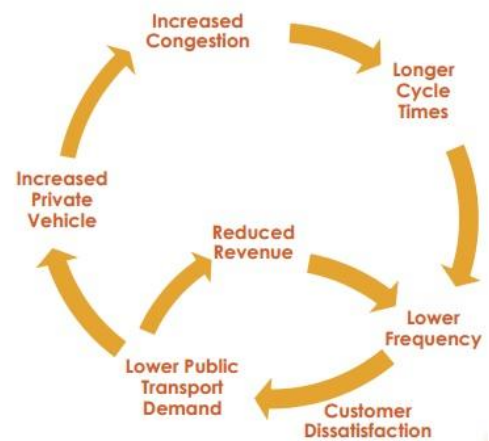
The importance of transportation in the world development is multidimensional. It links residence with employment, good producer with the users. It also provides opinion for work, shopping, recreation, health, education, and other amenities. Urban transportation infrastructure is looking up as transport demand in most Indian cities. It has increased due to increase in population as a result of migration from rural areas and smaller towns to cities. Transport in India has to be an integrated and diverse system with multiple modes of transport – buses, metro, rail, private transport systems.

Rapid growth in vehicles population has put enormous strains in all urban roads in all million plus cities in India, due to high vehicle ownership and poor supporting public transport facilities specially in the cities where the population is between 1 to 2 million. The major factor is very low ridership in public transport due to poor service quality and more travelling time.

All the million plus cities in India facing a serious urban transport problems, due to the increases in population in urban areas as a result of both - the natural increase and migration from rural areas and smaller towns. The increase in the number of motorized vehicles and in the commercial and industrial activities has further added to transport demand in urban areas.

DEFINATION OF FEEDER BUS: - A bus service that picks up and delivers passengers to a rail rapid transit station or express bus stop or terminal.

Vicious Circle



In this research topic provide feeder system bus to have easy flow of public transport in ahmedabad city. Ahmedabad is a city located on the western part of India in the state of Gujarat.

It is one of the most dynamic city of India with one of the fastest growth rate due to immigration from various part of the Gujarat and other state of India. Ahmedabad city has good connectivity of BRTS network, but to reach at their stand is arising a question in passengers mind. To overcome this question, here the title comes in picture to fed the stand of BRTS corridor.

OBJECTIVE OF STUDY

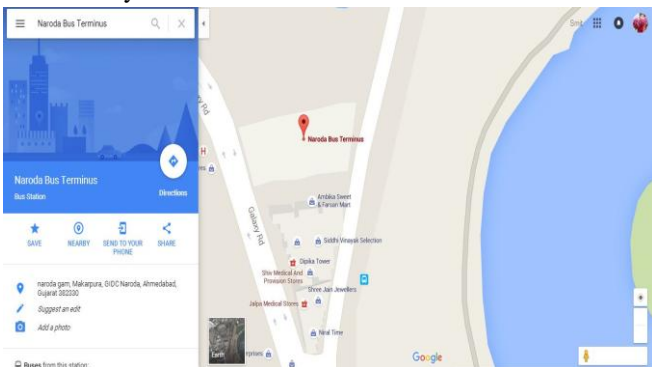
- Existing study of demand and supply of selected area of BRTS corridor
- To study the existing available system to access the BRTS corridor.
- To proposed the suitable feeder system/routes to access the existing the BRTS corridor.
- To carry out feasibility study of proposed feeder route.

SCOPE OF STUDY

- Study of existing feeder route.
- Time scheduling of feeder bus.
- Study of Supply and demand of BRTS corridor.
- To survey the area passenger coming from.
- To design the feeder bus route.

II STUDY AREA

Study area is to be selected as Naroda gam as it has the terminal point of BRTS stand from where the facility of BRTS starts. Study area cover mainly naroda gam besides other nearby small area is also included



III DATA COLLECTION AND ANALYSIS

Data is collected at the BRTS stand Naroda gam. Questionary survey and boarding-alighting of BRTS buses at the stop is carried out. From this data we come to know the different small areas from where daily passenger comes and goes to.

4.2 SURVEY FORM

**L.D.COLLEGE OF ENGINEERING
M.E.CIVIL(TRANSPORTATION)
O-D SURVEY FORM**

1. NAME: _____
2. SEX: MALE FEMALE
3. ORIGIN: _____
4. DESTINATION: _____
5. BUS TO TRAVEL: ISKON VASA NAROL
6. WAY OF COMING: PRIVATE VEHICLE AUTO RICKSHAW BUS WALK
7. APPROX TIME TO REACH BRTS STOP FROM ORIGIN: _____

BOARDING AND ALIGHTING DATA

From the collection of the data, analysis is done and from that we come to know

- Total no of passenger going- 1100-1200 persons/day .
- Total no of passenger coming-1100-1200 persons/day
- Duration hours: 6:00A.M.-12:00A.M.

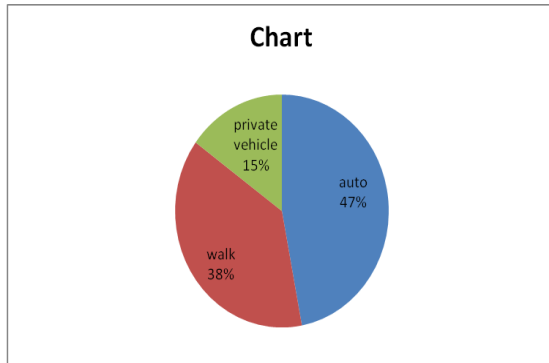
LIST OF SMALL AREAS

- Galaxy
- Durganagar
- Noblenagar
- Ghanshayam nagar
- GIDC naroda
- Nana chiloda
- Ranasan
- Naroda gam
- Hanspura
- Enasan
- Zak gam
- Vahelal
- Dolphin circle
- Payal nagar
- Nava naroda
- Hari darshan
- Kathwada road
- Kathwada circle

Mostly passenger comes from the Nana chiloda, Ranasan, Ghanshayam nagar, Noblenagar, GIDC naroda, Hanspura, Naroda Gam, kathwada circle, hari darshan char rasta and payal nagar.

This chart is getting from the O-D suvery, the way of source to reach upto the BRTS stand.

The maximum no of source is as vehicle in form of Auto rickshaw and private vehicle combine.



Scheduling of feeder bus

According to data and its analysis the schedule for the feeder bus should be as per the frequency of the brts buses, more over it should be applied in phase wise as I phase I feeder buses for peak hours only as 8am to 12pm and 4pm to 9pm in of frequency of every 15 mintues, covering majorly 3 diffirent routes

Route 1 nana chiloda-ghanshyamnagar-noblenagar-durganagar-naroda terminal

Route 2 vehlal,-enasan-hanspura-naroda terminal

Route 3 kathwada cirle-haridarshan-payalnagar-dolphincircle-narodaterminal.

IV. CONCLUSION

It needs to be realized that the proposal of feeder bus must be there to reduce the effortness of passeneger, it consumes less time, provides safety against accidents to happen, cheaper than other mode of transport.

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