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Title of Project :-

Identification of Strength and Weakness of the City Bus Services
Quality -a case study by using SPSS software

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Introduction:

Transportation planning is the process of defining future policies, goals, investments, and spatial planning designs to prepare for future needs to move people and goods to destinations. When we talk about the buses in the city, they are mostly in dilapidated conditions and it's not something people wish to travel in. Introducing and sustaining an effective and efficient transport system is therefore not an easy but possible task. Taking public transportation instead of owning a second vehicle can save individuals a significant amount of money each month in avoided gas, maintenance, parking, and other expenses. Household Expenses also reduced by using public transit as the family gets rid of buying one car and maintaining and operating the car. Public transportation significantly reduces the number of cars on the road. This means less pollution from motor vehicle emissions.

Objectives:

Assess the existing transport system with special emphasis on mass transport. To Study the problems of the system. To access the relationship with other supporting systems such as the existing road network, the local development plans, traffic management, and the like. To Examine the relevance of the public transportation system in alleviating the imbalance between our transportation systems as a whole and the ever-growing urban population in the city of Belagavi

In view of literature study, the objectives of this study are set as:

- To investigate the passenger's satisfaction with the present quality of Bus services.
- To study the relation of Travel Attributes with Bus service quality and suggesting managerial actions for uptake of bus services.

• Methodology:

Area Selection:- For data collection, we selected the southern part of Belagavi, about 11km from the city bus station to Piranawadi, and there were 17 bus stations in this area.

Questionnaire:- For data analysis, we created about 24 questions(all about city bus service quality) to ask the passenger about the quality of the city bus service. We collected 200 samples.

IPA Data analysis:- The analysis of the recorded interview requires organized and structured working. The interviews were listened to many times to find complementary, comparable or contrasting sequences. Those sequences were translated to work as an illustration and to get a holistic view on public transport. Special care was taken with the interview of the operator; because of this interview only those parts could be taken that were referring to public the process of the data collection about complained passengers. The analysis was carried out to know the difference between the perception of the operator with the expectation of the user and the specification of the service quality. After collecting data about the passenger complaints, later the grouping those complaints into five dimensions of the service quality was carried out, that are: reliability, responsiveness, assurance and empathy. The grouping into five dimensions was to facilitate to the user in the matter of expectation that was wanted when they use the public bus service that afterwards was made the material for designing the service standards.

Result:-

In quadrant 1 (Q 1) "Concentrate Here" to be of high importance, yet they rate performance levels as below average. Therefore, this is where the focus of future enhancement efforts should be. Total Five variables were present in this quadrant.

1. Ticket price of bus were affordable? (A3)
2. Uses of bus services organization happily in future?(A7)
3. Do Bus stops have CCTV security. (A9)
4. Route coverage of every area? (A16)

The variables in quadrant 2 (Q2) "Keep up the Good Work" to be highly important and agree with their assessment. In this quadrant, Seven factors were grouped together:

1. Doors of buses was closed while driving? (A4)
2. Thus, buses are clean? (A5)
3. Does Bus consist of emergency exit? (A10)
4. Whether there is a separate reserved seats for aged & handicaped peoples? (A12)
5. When asked, depot manager gave related Information. (A14)
6. Punctuality of buses according to schedule. (A17)
7. Other staff of bus transport service organization responded to my queries? (A23)

There are Seven variables in quadrant 3 (Q3) as Low Priority which will be low in both importance and performance. Those are:

1. Have you ever complained about the poor bus service quality? (A6)

2. Drinking water facilities available in bus stops. (A13)
3. Availability of trash bin in Bus stops? (A18)
4. Bus stops are located in safe area?(A15)

Variables with low importance and high performance can be found in the "Possible Overkill" quadrant (quadrant 4). There are five variables factors listed below fall within this quadrant:

1. Bus arrival is on time?
2. Is security available in Bus?
3. Does Bus consist Fire extinguisher?
4. How was the conductor response?
5. Any kind of rash driving while period of travelling?
6. When asked, drivers gave sufficient related information?

Scope of Project:-

1. **Sustainable and Inclusive Transportation:** As sustainability and inclusivity become increasingly important in urban transportation, future studies can investigate the integration of environmentally friendly technologies, accessibility enhancements for people with disabilities, and the provision of equitable service to underserved communities.
2. **Impact of Service Quality on Modal Choice:** Examining the relationship between city bus service quality and modal choice can provide insights into the factors influencing passengers' decision-making process. Understanding the trade-offs and preferences of passengers can inform strategies for attracting more riders and promoting public transportation
3. **Economic Evaluation:** Assessing the economic implications of city bus service quality, including the potential impacts on local economies, productivity, and social equity, can contribute to a more comprehensive understanding of the value of investing in service improvements.

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