PODHIGAI COLLEGE
OF ENGINEERING & TECHNOLOGY

Tirupattur

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

YEAR:III SEM:V

DOMAIN:DATA ANALYTICS

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PROJECT NAME:PUBLIC TRANSPORTATION EFFICIENCY ANALYSIS

PROBLEMS IN EXISTING:

Te financial problems stemming from India s low per capita income are probably the most important challenges facing Indian public transport, but there are many others as well: inefficiency, roadway congestion, traffic accidents, lack of planning, overcrowding, noise, and total lack of coordination of any kind.

SOLUTIONS TO THE PROBLEM:

1)IMPROVE TOCKETS SYSTEMS:

Streamlined ticketing systems are a key element of transportation efficiency. Slow-moving and crowded ticket lines are off-putting for passengers, while contactless

ticketing options are becoming an expectation.

There are four ways:

1. Giving Public Transport Road Priority
2. Reducing Fraud
3. Improving Customer Satisfaction & Safety
4. Enhancing Connectivity and Convenience

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4. Enhancing Connectivity and Convenience

1)Giving Public Transport Road Priority

The efficiency of public transport could be largely improved by giving priority to buses, trams, and other public vehicles on the road.

This can be achieved through the implementation of more bus lanes, also known as ‘queue jump’ lanes. These lanes are separated from the rest of the road, usually by a thick white line, and can help to improve the reliability and safety of buses.

One of the main restrictions of public transport is the strict timetable that vehicles try to adhere to - even when there is unpredictably high traffic on the road.

The implementation of bus lanes removes this variable and allows more buses to stick to their schedule - meaning more people will be likely to trust and use public transport to get them where they need to be on time. These priority lanes can also help to reduce general road congestion, especially if they can be used by motorists outside of operating hours.

Another way to improve public transport is to give priority to public vehicles at traffic lights.
This strategy has already been implemented in Sydney, Australia - with the use of SCATS (Sydney Coordinated Adaptive Traffic System). SCATS uses predictive algorithms to predict the exact moment a bus is set to arrive at an intersection and then it turns the traffic light green before the bus arrives.

According to Transport for NSW, this has almost doubled the average bus speed through intersections, and has also increased customer satisfaction and levels of use on services.

2)Reducing fraud

Customers want boarding to be as simple as possible, but it's also important to have ticket barriers and gates in place to reduce fraud and maximise passenger safety. By implementing tripod turnstiles or full panel gates with integrated ticket validation and payment systems, you can reduce fraud on public transport.

Access control in public transport environments firstly serve the purpose of acting as both a deterrent and a physical barrier in practice by restricting movement unless authorisation has been granted. This has a knock-on effect when it comes to fraudulent behaviour and reduces the occurrence of illegal fare evasion and criminal activity.

By taking care to have a zero tolerance approach to fare evasion and social disorder, the broken windows theory can be applied here as it has been proven that uncivilised and antisocial behaviour is reduced by implementing these safety and security measures.

Automatic fare collection gates ensure transport operators see a faster passenger throughput to make the process more efficient - whilst also maintaining a high level of security to protect staff and passengers as well as important revenue streams.

For more information on how Gunnebo can provide the right automated gate solution for financial and personal safety, contact one of our experts here.

The last but certainly not least of our ways to improve public transport is to enhance the ways in which travellers connect with their journey. A smartphone is now an essential commodity that everyone carries with them. Being able to harness its power to connect touchpoints and information to passenger activity improves the experience for users and operators alike.

Smart technology can allow customers to open gates with smartphone tickets, instead of worrying about purchasing a ticket from the machine. This reduces queue times even during rush hour, and allows users to easily pass through gates, regardless of their user

type.

But it doesn't end there. Smartphones can further improve public transport. New technology can also give station managers insightful data that they can use to improve the function of their station even further and help to keep customers safe. For example, by forecasting peak times or identifying gates in need of repair.

Many transport companies are now starting to implement apps that allow passengers to look up arrival and departure times, platform notices and other useful information.

One such example is Trainline, a service that covers all of the trains in the UK. Passengers can search for, and book trains and coaches:

PLATFORMS NEEDED:

1)Microsoft excel

2)Power BI

3)python

4)Tableau

LANGUAGES:

1)C++

2)Python

3)SQL Database

4)HTML

FRONT END:

Frontend is designed by using HTML i.e..Hyper text markup language.

BACK END:

SQL database,python,c,c++ is used to store the data in

backend securely.

ADVANTAGES:

*Reduces Congestion. Urban congestion is one of the greatest challenges of developed
*nations. ...
*Enhances Productivity. ...
*Increases Land Value. ...
*Financial Benefits of Communities. ...
*Saves Money. ...
*Ensures a Cleaner Ecosystem. ...
*Prevents Global Warming. ...
*Reduces Carbon Footprint.

REFERENCES:

1)internet

2)books of python and c,c++

_____THANKING YOU_____