

TaPP

PREPARED BY:-

Sonali (*Team Leader*) Abhinav Sarkar Muffaddal Kharodawala Rhea Bhambhani Saswat Mishra



Target Users

- Car Driver/Owner
- Age: 18+
- Male/Female/Others
- Different levels of technical sophistication



Problems Faced

- Time Wastage
- Fuel Wastage
- Traffic Congestion
- Noise Pollution

Problem Statement

"Traffic Bottleneck and Time Wastage at Toll Plazas in Metropolitan Cities"

MIND MAP

CAUSES

- Population
- Cash Exchange
- Paper Usage
- Manual Processing
- Toll Barrier

EFFECTS

- Traffic Bottleneck
- Time Wastage
- Fuel Wastage
- Increased air pollution
- Increased Noise
 Pollution

Traffic Congestion and Time Wastage in Indian Toll System

DATA

- 462 Toll Plazas
- Approx. 11000 vehicles pass in 24 hours.
- In 2015, approx.
 Rs. 60,000 cr. per year was wasted.

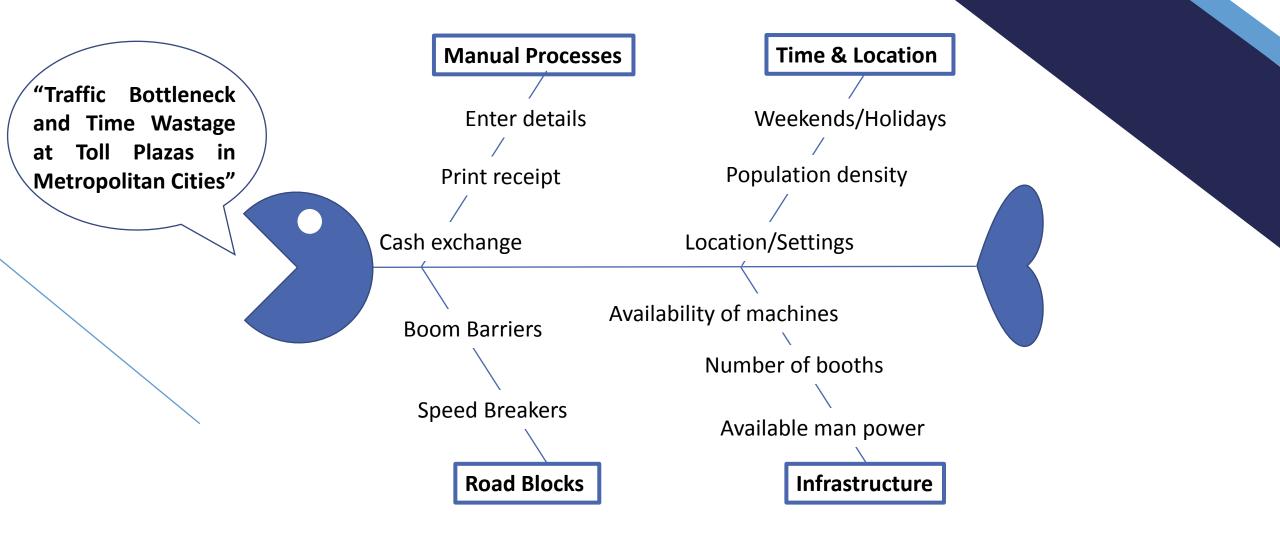
CONSTRAINTS

- Population
- Cash Exchange
- Paper Usage
- Manual Processing
- Toll Barrier

SOLUTIONS

- Automatic toll collection
- Digital Transactions
- Car Pooling
- Use Public transport

Fishbone Analysis





Current State of the art

RFID based chips linked to a prepaid wallet



Limitations of E-Tag

- Can be easily disrupted
- Tag collision
- Reader collision
- Can be read without your knowledge
- Has not taken off well





Proposed Solution

- Toll App: TaPP QR scanner
- Phone number and vehicle registration details
- Verification and OTP to authenticate payment
- Payment within 24 hour.
- Defaulter has to pay fines.





PUT ON YOUR THINKING HATS.....

- Trying to prevent pollution and discomfort for daily toll plaza users.
- To ensure that users spend minimum time at toll booths.
- Prevention of fuel wastage at tolls.

- Loss of 60,000 cr. rupees every year due to traffic bottleneck at toll plaza.
- 462 toll plazas on National Highways alone.
- According to an estimate, roughly 11,000 vehicles pass a toll plaza on a normal day.

- Convert toll tax to road tax.
- Use RFID tags linked to the vehicle to pay tolls.
- Increase the number of toll booth lanes.

- Post paid system which you can pay at your convenience.
- Theft detection message if the paying number doesn't match the authorized numbers.
- Online payments make the transactions more transparent.
- Saves time and fuel by eliminating manual processes.

It is slightly slower than RFID tags.

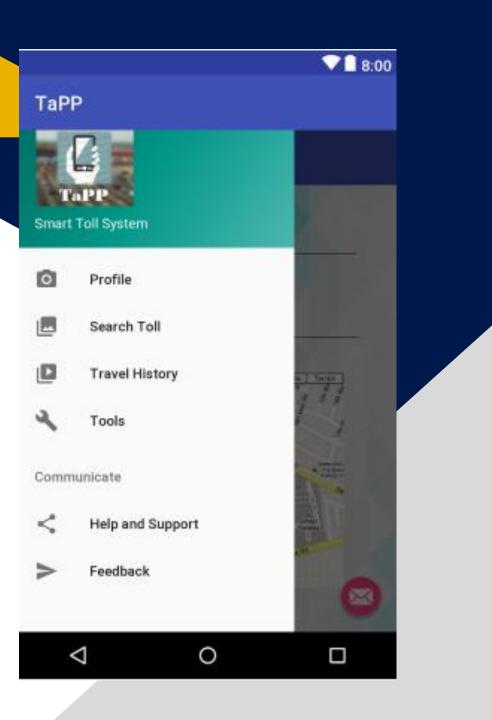
People not comfortable with technology might not use it. The users will be happy as we are reducing air pollution.

The user will feel good as both time and money is saved.

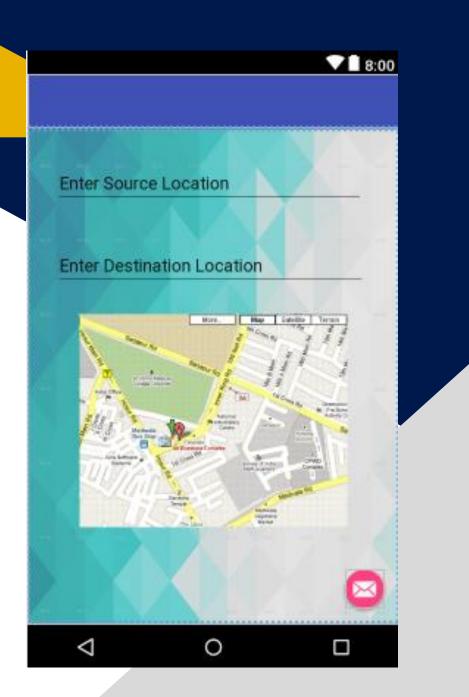
WELCOME SCREEN



NAVIGATION DRAWER



HOME SCREEN





Thank You.

TaPP