PROBLEM STATEMENT E-ticketing platform for intra city bus commuters

NEED FINDINGwrt bus commuters

**Need finding tools used:** observations and interviews

**Observations:**

Bus commuters we observed could mainly be classified into:

1. **Environmentalists:**

**1.1.** Characteristics:

* They care about the environment. (Upsets them when they see others littering and polluting the environment.)
* Have knowledge on harmful chemicals, practices that have adverse effects on the environment.

**1.2.** Their problems:

* Get frustrated when they see other bus commuters throw their tickets in the bus or on the streets
* Not happy with the whole ticketing system ( process involves not only harms the trees but the ink used in printing them is known to have BPA , a highly toxic chemical which in the long run is known to cause harmful health problems)

1. **College/school students:**

**2.1.** Characteristics:

* Daily commuters
* Take the same route
* Expected to always have exact change
* Tech savvy

**2.2.** Their problems:

* Cannot find / carry exact change for all of their travels (their frequency of travel is very high)
* At times, asked to deboard if they don't have exact change (could have cascading effects on their other activities)
* Find it difficult to hold onto tickets until the end of the ride (could be wrongly fined if lost) and later discarding it.

1. **Occasional commuters:**

**3.1.** Characteristics:

* Not accustomed to the norms of travelling in a bus.
* Maybe new to the city, not aware of the places.

**3.2.** Their problems:

* Don’t know when to get off the bus(final destination).
* May not have cash/exact change in hand.
* Don’t know which bus stop to wait in for the right bus.

1. **Tech savvy commuters:**

**4.1.** Characteristics:

* Prefer/Accustomed to using technical/digital solutions in their everyday activities

**4.2.** Their problems:

* May not have cash in hand, as they prefer using digital wallets,cards etc..
* Find it difficult to hold onto tickets until the end of the ride (could be wrongly fined if lost) and later discarding it

1. **Other daily bus commuters:**

**5.1.** Characteristics:

* Consists of garment workers, middle class IT employees, teachers, housemakers, etc..
* Most often take the same route
* Expected to always have exact change

**5.2.** Their problems:

* Cannot find / carry exact change for all of their travels (their frequency of travel is very high)
* At times, asked to deboard if they don't have exact change (could have cascading effects on their other activities)
* Find it difficult to hold onto tickets until the end of the ride (could be wrongly fined if lost) and later discarding it

**Interviews:**

**Interview 1 :** college student + environmentalist

Interviewee:

* Anna
* 21 year old college student who also care about the environment
* Lives 25km away from the college
* Needs to switch 2 buses everyday to travel to college

Summary of the interview:

* As someone who cares for the environment, Anna is angered by the way people litter the buses and streets with tickets. She hopes to find a way to make people aware of the consequences of their actions and curb littering.
* She finds it very inconvenient to carry exact change for her bus trips that cost Rs.17 and Rs.35 respectively.
* She has had experiences where the conductor was rude for not having change, and sometimes asked to deboard the bus. There were also instances where she did not get her change back (as the conductor didn't have change or the bus was too crowded and the conductor was the the rear end of the bus when her stop arrived)
* As she is tech savvy, she wholeheartedly welcomed the idea of digitizing bus payments
* As she frequently travels she has a compartment in her bag just to keep tickets and as most of the buses get crowded, she finds it inconvenient to take out the ticket for checking and also later disposing of it. She prefers digital booking as its convenient to just show it on the phone
* She also prefers digital booking with the pandemic and rising cases

**Interview 2 :** new commuter in the city

Interviewee:

* Elsa
* 25 year old IT employee who has moved to a new city for work
* Lives with her aunt
* Should travel everyday via bus to work

Summary of the interview:

* She finds it difficult to communicate with the conductor due to language barrier and experienced rude behaviour at times for not being able to effectively communicate
* She has difficulty in remembering the route as she is new to the place
* She prefers using E-wallets or cards and not a fan of using cash
* She likes the idea of having the liberty of booking her ticket on an app as this allows her to choose the right destination and pay digitally
* She would also like if the app could notify her on arriving at her destination
* With covid, she prefers to have minimal contact with the conductors

CONCLUSION

**Problems to solve:**

* Need for cash/exact change
* Littering of streets and use of BPA
* Losing tickets and getting fined

With this information at hand, we carried out further research to validate the need. We found out that around 3.5 million bus tickets are issued per day in Bangalore alone as per the 2019 statistics. That means 3.5 million pieces of paper are used which have value for only a short period of time and usually end up thrown on the roadsides

Paper receipts are not just limited to harming the trees but the ink used in printing them is known to have BPA , a highly toxic chemical which in the long run is known to cause harmful health problems

If Bangalore alone is generating millions of these tiny tickets on a daily basis Imagine the numbers in which they are generated across the nation. And imagine the amount of damage these tiny little papers inflict upon the environment.

Hence, We propose our solution= RECIBO

A Mobile application that provides digital tickets to daily bus commuters with an additional QR code method of payment. Our app RECIBO is designed to minimise the usage of paper and reduce environmental pollution

**Target customers**

Our product would mainly benefit daily bus commuters of metropolitan cities- students and working professionals.

It would benefit people who are used to online modes of payment

It also benefits people who travel frequently but for whom bus passes would not be cash beneficial.

Environmentalist would be potential customers as our app in long term hugely benefits the environment

**Value**

Our product offers digital means of ticket Confirmation so that commuters wouldn’t be unnecessarily charged for losing their paper ticket

Our product Allows cashless transactions,

Help users maintain a record of their travel history and last but not the least it’s environment friendly