

DRS - Project

**The Challenges of Transitioning
Navigation Habits into Systems:
Case of the Mumbai Rail Network**

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Introduction

Crowded platforms, long queues, noisy compartments, busy bridges and a never stopping spirit are the most common visuals at any station of Mumbai and its local trains. EMU - Electrical Multiple Units which are otherwise known as the lifeline of Mumbai—Mumbai Local, carry about 7 million people daily.

The density makes these bridges, ticket counters, platforms, train compartments, etc. unique threshold spaces. The density forces the population to behave in a certain manner, over a course of time these behaviours transform into habits and then into unsaid rules or norms after being accepted by the masses.

The process by which new behaviours become automatic is habit formation. Old habits are hard to break and new habits are hard to form because the behavioural patterns we repeat are imprinted in our neural pathways, but it is possible to form new habits through repetition (habits-wikipedia).

One of the countries that faces a similar problem with density in local transport is Japan. The Tokyo metro transports 8.7 million people daily. They manage the punctuality by assigning official pushers, who push the passengers to squeeze in so that the doors of the train can be shut. The other city which has high public transport is London. One rule that has been developed over the course of time is when you use the escalators to enter / exit the station, the right lane is the 'fast lane'. You cannot stand in the lane if you are not willing to climb along with the movement of the escalators.

People usually want an easy way out of anything. If the bridges are too crowded why not jump the tracks (as seen in India). Infrastructure planning plays a crucial role in determining these habits. The moment you allow people to jump on tracks and move to the other platform you give them the leeway to perform such tasks. On seeing this habit the railway authorities erected fences between the tracks, dissuading commuters from jumping tracks. This did work for a while but then people started to jump over them through the train gates on the other side of the platform.

This article/ paper/note is an attempt to document behaviours and the habits of commuters formed in high density transport systems over the course of the time. These habits are listed below:

1. Near the ticket window:

There might be chances of people popping next to you at the last minute when you are at the ticket window purchasing your ticket and they might request you to buy them a ticket as well, trying to avoid standing in the queue. This happens with the smart card as well.

2. Selection of trains:

If you are travelling from Churchgate and getting down at Andheri, you cannot board a Virar local or Borivali local at peak hours. You will not be allowed to alight, or if you manage to alight people would pass comments making you realize you have boarded the wrong train.

3. Mannerisms (General compartment -Gents):

a. Backpack:

One should not wear a backpack on the back while boarding or alighting from the train at peak hours. It causes great inconvenience to others.

b. Ask the person in front:

One must always ask the person standing in front after lining up whether s(he) will get off at the next station. Person standing behind those in front cannot make assumptions about this and it is their responsibility to get off at the appropriate station. 'They can't blame those in the front if their destination is missed due to "blocking of way".'

c. Women getting the preference:

If there is a lady sitting in the general compartment, men do not opt for the fourth seat which is a normal behaviour while travelling in peak hours. Also there are given the preference to sit.

d. Bag on the shelf:

The person standing near the window in peak hours usually ends up helping people put their bags on the section above his head, made to place luggage. The train gets too crowded and people cannot get in and hence pass their bags to the man standing in the spot and request them to place it there. Sometimes there is a chain that is formed which involves 2-3 people in the process. The person just hands over the bag to the first person and the person collecting the bag understands the reason behind this and passes it forward to the guy standing next / closer to the overhead luggage stand.

4. Jumping Tracks:

People start jumping on railway tracks to cross because the bridges are very small in terms of handling traffic. There are some bridges at major stations which face a lot of footfalls (Thane, Borivali, Kalyan) which are very narrow to handle a traffic of an entire train crowd. This forces people to jump onto tracks to cross the lines and exit. If they choose to stand on the platform and wait for crowd to reduce another train pulls into the platform within next 3 mins.

5. Groups and their cultures:

When people travel for long distances (where the train starts, right up to the last station on the route) they tend to form groups due to high density and daily travel. This triggers a very close friendship amongst the groups.

a. Playing cards:

These groups have a strong bond amongst the members. People play cards, the no. of people involved can be from 4 - 14 depending on the size of the group.

b. Seat reservation:

The members of the group receive an added advantage of getting a seat every day as one member of the group always reserves a seat. If the group is unavailable to save you a seat, there is always someone from the group ready to give you their seat.

c. Bhajjan groups:

There are some groups which are dedicated bhajjan groups. They sing spiritual, religious and sometimes hindi movie songs on their journey. They usually are the people who go from end to end. For e.g. a train starting from Thane - C.S.T., they would board from Thane and would go upto C.S.T.

d. Breakfast:

These groups also have breakfast sessions where one member of the group brings food for everybody like samosas, vadapavs or faafda etc. for everyone in the group. They dedicate days for everybody to bring in food. Sometimes they would also bring food from home.

e. Festival celebration & Parties:

The ladies enjoy their journey back home in the evening indulging in activities like haldi-kumkum, kitty parties, etc. The long 1 or 1 ½ hour journey is completely utilized.

6. Seat Reservation:

a. Pre booking:

People pre-book the seats 2 stations prior the train reaches the destination and returns from there. For e.g. people board trains from Malad & Kandivali and head towards Borivali in the morning peak hours. The train halts at Borivali for 4-5 mins and heads back to Churchgate which makes the passengers pre-reserve their seats in the course of the journey. If they do not do so they would not be able to board trains from their respective stations and hence they come back 2 stations.

b. Ladies coach seat reservation:

Ladies coaches observe a strange behaviour of seat exchange where the lady standing points a finger at the seated women asking them to prompt their stations and then they speak up their lighting station and if they have a match then she confirms the seat by double pointing towards the lady acknowledging the seat is taken by them.

c. General (Gents) coach seat reservation:

If someone vacates the seat the person standing first (near the window) between the seats has the first preference to be seated. The people sitting on the seat cannot slide and fill the gap. For e.g. the person sitting on the 2nd seat (from the window) vacates, then the 3rd and the 4th seat person cannot slide in. You will be made to slide back if you do so.

7. Business on the go:

a. Pedlars:

Ladies compartment: There is a huge need gap that needs to be filled. The people who commute daily to work cannot squeeze in extra time purchasing day-to-day items. For women who need to head back home and cook need to buy the vegetables, the vegetables sellers see this the perfect opportunity to sell their goods. There are instances of lady commuters buying from the same lady pedlar on a regular basis. Apart from just vegetables they also sell hairpins, cosmetics (lipstick, eyeliner, gloss, eye makeup, foam pads) & earrings & rings.

b. General (Gents) compartment: Here there are more generic products like perfumes (unisex), ear cleaners (with torch), weaving accessories, pens, children's story books, wallets, etc.

c. Food pedlars:

These pedlars usually operate only at the starting stations and alight just before the train leaves the station. The maximum distance they travel is the station after the starting point. They return back from that station to the starting station and again repeat the same process.

8. Spaces within the coach:

a. 4th Seat:

i. Second class:

You have to adjust the 4th person on the seat. The seat is designed keeping 3 people in mind, but people squeeze in a bit to adjust the 4th person. This habit is then carried forward in during the non peak hours as well.

ii. First class:

One does stand in the gap between the seats in second class during peak hours, but one cannot do so in the First class. Also the fourth seat concept is not practiced in the First class.

b. Footboard:

The trains halts for only 30 seconds at a station. One cannot stand on the footboard and wait for the train to come to a complete halt before getting down. If one has been standing on the footboard one has to alight as the train gets little slow just before stopping giving the people behind you the extra time to get off the train.

c. End stations during peak hours:

Due to high density when the trains arrive at the last or terminal stations on a particular route (e.g. Churchgate, C.S.T, Borivali, Virar, Thane, Kalyan, etc.) during the the peak hours the rule of 'Please allow people to alight first' does not stand true. For e.g. The train is arriving at Borivali station at 8:00 am (peak hour) and it will be returning back to Churchgate from here, then people who are alighting at Borivali must stand back till the people board, as the ratio of people boarding is quite high. This same scenario is observed at Churchgate in the evening while people return back home.