Project Title: Traffic And Capacity Analytics For Major Ports Team ID

: PNT2022TMID18520

1. CUSTOMER SEGMENT(S)

CS

The Central Government, which manages Indian Railways, will benefit most.

The organization that routinely transports its goods

6. CUSTOMER CONSTRAINTS

The Indian railway system is a pillar of our economy. It's crucial to analyse those because it's challenging to manage traffic in those major ports.

CC 5. AVAILABLE SOLUTIONS

AS

Explore AS, differentiate

Several interlocking device types were introduced. Interlocking manually: Relay, Telematics, Mechanical, and Human Electronic, free-wired relay automatic interlocking.

Failure of the interlocking system can result in a collision.

There are two types of ERTMS, the common signalling and communication system.(ATP) GSM-R ETCS (European Train Control System) (Global System for Mobile Communications -Railway)

None of these options were effective enough.

2. JOBS-TO-BE-DONE / PROBLEMS

Data analytics can help in reducing rail corridor congestion and enhance the port connectivity

Effective analysis must be done of all the port traffic data.

A critical part of port development is port-rail connectivity, both from an economic and competitive perspective and to minimize the adverse externalities on people and the environment.

9. PROBLEM ROOT CAUSE

RC

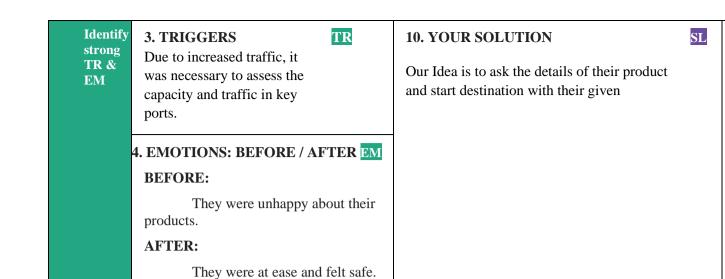
1.Delay in transporting goods

2. Loss for Industries

7. BEHAVIOUR

BE

The customer is the one who sends their goods by train; they need to know if they will arrive safely. They also require the reputation of Indian Railways, which promotes growth for both parties.



Transportation

8.CHANNELS OF BEHAVIOUR

 \mathbf{CH}

8.10NLINE

Customer can track their goods in their place

8.2 OFFLINE

After the product is reached their required destination Customer will be informed through a normal message which does 't required any network