Explore AS, differentiate

CH

1. CUSTOMER SEGMENT(S) Who is your customer? i.e. working parents of 0-5 y.o. kids

CS

J&P

What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

I am a train Passenger

Spending power

6. CUSTOMER CONSTRAINTS

- budget
- tidiness of passengers

5. AVAILABLE SOLUTIONS

Which solutions are available to the customers when they face the

problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

The smart sensor and analytics across the train engine and coaches and we are planning to determine significant service to passengers

2. JOBS-TO-BE-DONE / PROBLEMS

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

• I am expecting waterless & odourless toilet & clean rail track, box maintenance.

9. PROBLEM ROOT CAUSE

What is the real reason that this problem exists? What is the back story behind the need to do

i.e. customers have to do it because of the change in

Geographical factors the North Indian plain with its level land, high density of population and rich agriculture presents the most favourable conditions for the development of railways.

7. BEHAVIOUR

What does your customer do to address the problem and get the job pone? i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated; customers spend free time on volunteering work (i.e. Greenpeace)

Smart sensors and analytics across the train e

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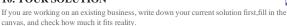
3. TRIGGERS



What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

- Not burned locomotives exhaust stack fires can occur when diesel fuel is not burned properly or the stack and spark arresters are not cleaned periodically.
- In such cases, sparks may come out of the stack and could drift into flammable material on the right-ofway or beyond the right-of-way

10. YOUR SOLUTION



If you are working on a new business proposition, then keep it blank until you fill inthe canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

> The automation of toilet can significantly reduce the cost incurred by the train operator and at the same time provide a better service to passenger who will likely find a toilet out of

8. CHANNELS of BEHAVIOUR



What kind of actions do customers take online? Extract online channels from #7

What kind of actions do customers take offline? Extract offline channels from #7and use them for customer development.

- In online mode we monitor the system using IOT
- In offline mode the train passenger should use and keep the surrounding clean

4. EMOTIONS: BEFORE / AFTER



How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

determine the status of on board toilet in real time and nowadays we are using new facilities