Problem-Solution fit canvas 2.0

SMART SOLUTIONS FOR RAILWAYS

Define CS, fit into

1. CUSTOMER SEGMENT(S) — CS

Who is your customer?

1.Passengers

2.IT engineers who continuously uses metro

6. CUSTOMER — CC

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.

The impact of the network on the tests was a significant and unexpected element. This IoT based system was successful in simulating a better optimal solution for the above constrains.

5. AVAILABLE SOLUTIONS — AS

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 dothese solutions have? i.e. pen and paper is an alternative to digital notetaking

Along railways, static signs with clear directions are put as potential fixes.

Explore AS,

Focus on J&P, tap into BE, understand

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

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

Railway operators are increasingly achieving greater safety and efficiency by using digital technologies and computer-based management, control and communication systems. The technical advances in modern transportation that the industrial internet of things (IIoT) enables are driving the development of further international standards in the railway sector

9. PROBLEM ROOT CAUSE — RC

What is the real reason that this problem exists? What is the back story behind the need to do this job? i.e. customers have to do it because of the change in regulations.

No sensor readings from the weather would alter the speed restriction if there was no internet connection. Unnecessary pressing of the emergency button by some people could lead to delay in timing of different train arrival to their respective stations.

7. BEHAVIOUR — BE

What does your customer do to address the problem and get the job done? 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)

The IOT cloud updates the smartboard in the railway stations on the condition of the train arrival and departure on a regular basis.

Focus on J&P, tap into BE, understand

Identify strong TR & EM

3. TRIGGERS — TR

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

Poor weather conditions prevail. The train should be moving at threshold speed. The sensor value should be shown on the smart board to alert the customer

4. EMOTIONS: BEFORE / AFTER — EM

How do customers feel when they face a problem or a job and afterwards?

Clients will feel better after selecting an operation mode with the use of online connectivity, and they will then follow the instructions on the railway websites.

10. YOUR SOLUTION — SL

We employ smart linked applications as an alternative to static signboards in the railway stations. With the help of a web app and weather API, these intelligent connected applications automatically update with the current speed limits and expected arrivals of the trains.

8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE

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

The departments can receive direct emails or messages from customers, or else develop an application for customers to directly complaint their problems in the application

8.2 OFFLINE

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

Following directions is one of the main tasks for the travelers, but they can utilize the nearest offices signs to check the state of the trains from wherever they are.

Extract online & offline CH of BE

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