Project design phase – I

Proposed solution fit template

Date	19 September 2022
Team ID	PNT2022TMID49509
Project Name	Emerging methods for early detection of forest fire
Maximum Marks	2 Marks

Problem-Solution fit canvas 2.0

Early detection of forest fire

Purpose / Vision

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

Who is your customer?

1. Forest officer who wants to find forest fire at the earliest.
2. Tribes who lives in the forest.
3. People who lives near the forest.

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.

Forest is a vast area the costumer himself cannot monitor those areas.

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 solu

In the existing solution sensors and cameras are used to detect the fire. This solution is difficult to implement because there is a possible of false positives.

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

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.

1. To detect forest fire in advance.
2. To monitor wide area of forest.
3. To prevent terrible forest fire.

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.

1. The main reason for fire are natural causes such as lightning and man made causes like naked flame, cigarettes or electric spark etc.
2. The customer who lives near the forest losts his family because of fire so he wants to detect the fire at the earliest to save many more families.

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)

Customers can address the problem to the government and they can find the best way to detect the fire.

Focus on J&P, tap into BE, understand RC

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.

Fire causes destruction of many valuable species and harmful to human lives.

4. EMOTIONS: BEFORE / AFTER — EM

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

Customer feels frustrated and insecure because of fire and after the prediction they can feel safe.

10. YOUR SOLUTION — SL

If you are working on an existing business, write down your current solution first,fill in the canvas, and check how much it fits reality.
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.

We are going to test a CNN(Convolutional neural network) model which collects the data from sensors, cameras and drones and gives it to the model and predicts the fire before it happens. It also gives the exact location of fire and to reduce the false positives of fire detection.

8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE

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

Customers can post this problem in social media platforms to seek the attention of government.

8.2 OFFLINE

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

Customer can approach the government officers and explain in detail about the early detection of forest fire.

Extract online & offline CH of BE

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