Project Title: Natural Disaster Intensity Analysis and Classification Using Artificial Intelligence   **Project Design Phase-I - Solution Fit Template**   **Team ID:** PNT2022TMID21298

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)   `CS`

Who is your customer?
i.e. working parents of 0-5 y.o. kids

Seismologist
Volcanologist
Meteorologist
Oceanographer
Climatologist

6. CUSTOMER CONSTRAINTS   `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.

Scope of the product.
Cost.
Prolonged periods of implementation.
Environmental constraints.
Lack of sufficient resources.
Varying geographical terrain.
Unpredictable climate changes.

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

Usage of classification algorithm solely for the purpose of identification for impacts of disasters by the help of optimized data clustering.

Pros:
    1) Modal transparency
    2) Clear distinction between indirect and direct effects
    3) Well-suited to short-term recovery periods
Cons:
    1) Ignores other fundamental factors responsible for such phenomenon
    2) Lack of scalability of the product

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.

It is difficult to analyze factors such as atmospheric pressure , tectonic movements , ocean surface disturbances and volcanic activity which results in such devastating phenomenon.

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)Natural phenomenon
2)Influence of stellar objects
3)Tectonic movement
4)Soil erosion
5)Deforestation
6)Ocean currents
7)Air pressure
8)Seismic waves

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)

1) Develops, adopts, and enforces building codes and land-use standards.

2) Requires construction of disaster- resistant structures.

3) By providing training and professional development programs.

4) Coordinating incident response planning.

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

Identify strong TR & EM

3. TRIGGERS

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

When a product offers high precision for such unpredictable factors , it encourages the users to obtain it at all costs.

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.

Due to the variables present in the data gathered from the surroundings , many people tend to be confused and frustrated at the lack of results. However, since this product provides high yield of results, it not only raises their overall work efficiency but also their confidence.

10. YOUR SOLUTION

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 in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

We hope to integrate the supervised classification algorithm with the reinforcement learning algorithm to help the AI monitor and predict the influence of various factors in the environment and their impacts.

8. CHANNELS of BEHAVIOUR

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

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

ONLINE:
        1)They seek technical support or the experts opinion on such matters via internet.
        2)They organize strategical meetings with other authoritarians to help in decision making.

OFFLINE:
        1)They involve in a series of planning activities to ensure the smooth progress of the monitoring and preventing the impacts of the natural phenomenon.

Identify strong TR & EM