Project Title: Fertilizers Recommendation System for Disease Prediction **Project Design Phase-I - Solution Fit** **Team ID:** PNT2022TMID21501

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

Who is your customer?

CS

Our customers are farmers who wish to analyze the disease in their farm and the plants that they grow and they could know the fertilizers for those plant diseases. And the people who maintain the home garden are our customers too.

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.

As we provide this service to the farmers in rural areas and villages, it will be difficult for them to have good network connection.

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

AS

The farmers used to analyze the plants in their farm with their own knowledge and they try to identify the disease and they randomly select the fertilizers for use and if one didn't work out well they will choose another fertilizer for use but in this solution the disease will be predicted instantly and the exact fertilizer will be recommended correctly.

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.

The images for various fruits and vegetables have been collected and the image processing is done using the deep learning techniques for identifying the disease and the suitable fertilizer will be predicted using machine learning prediction algorithms.

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.

Now-a-days various plant diseases occur due to irregular seasonal changes in the environment and those new plant diseases that occur are not able to be removed as farmers lack in the knowledge for those new diseases and the fertilizers required.

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.

Finding the disease name after analyzing the leaves for so many days and applying the fertilizers required to cure that plant disease which will not be a success in the first trial.

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

Identifyng TR&EM

3. TRIGGERS

TR

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

Reading about instant fertilizers solution in advertisements.

4. EMOTIONS: BEFORE / AFTER

EM

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.

Farmers will feel lost and sometimes they will lose confident and they may be frustrated if they failed to identify the exact fertilizers for the plant diseases.

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

A web application is built where farmers can interact with the portal build. It interacts with the user interface to upload images of diseased leaf. Our model built analyses the disease and suggests the farmers with fertilizers are to be used.

8. CHANNELS of BEHAVIOUR

CH

8.1 ONLINE

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

Farmers may check the fertilizers for the plant diseases online using many sites.

8.2 OFFLINE

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

Farmers must visit the fertilizers shop and get the fertilizers for the plant diseases that they analyzed.

Identifyng TR&EM