Project Design Phase-I - Solution Fit Template

Project Title: Smart Farmer – IOT Enabled Smart Farming Application
Team ID: PNT2022TMID26519
Team Members: Monish Kumar V, Sanjay Kumar V, Swetha G, Mohana Priya K

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

Who is your customer?

The main customer for our project are:

Farmers who wants to improve the yield of their crops, who need to save and who needs to monitor and control more than one field at a time. Farmer who need to do modernized agriculture are our customer.

6. CUSTOMER CONSTRAINTS CC

What constraints prevent your customers from taking action or limit their choices of solutions?

Main constraints are :

- Network connectivity would be the main problem.
- Farmers who are uneducated will suffer in operating smart phones.
- Farmers will find difficulties to check the crop conditions and soil conditions using these technologies.

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 ?

- Farmers can monitor crop parameters and control irrigation remotely.
- Farmers can monitor the moisture of soil and humidity.
- Farmers can control their field remotely using IOT technologies.

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.

- Farms are located in remote areas and are far from access to the internet, so connection issues would occur.
- Equipment needed to implement IoT in agriculture is expensive.
- The farmers will initially find it hard to use the device as they have to get familiar with the technologies

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?

- In accuracy in predicting crop parameters manually, wasting lots of time and energy in farm field
- Technologies keep developing but still the farmers are not able to achieve their goals.

7. BEHAVIOUR

BE

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

- IoT applications help farmers to collect data regarding the health of their crops.
- Sensors are integrated in the farm field to monitor parameters and data in processed and sent to the cloud (node red) using Ardiuno board, the farmer can see parameters and control irrigation using smart phone

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

Identify strong TR & EM

3. TRIGGERS TR

What triggers customers to act?

Customers get triggered mainly because, To increase their crops yield. Farmers want to save their time and wants to control their field remotely

4. EMOTIONS: BEFORE / AFTER EM

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

Before: Depressed ,loss of time and Facing more losses
After: Confident Gets chance to spend time efficiently and can improve the crop yield .

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.

Smart Farmer – IOT Enabled Smart Farming Application :

Iot integrated remote farming using sensors, irrigation system and ardiuno connected to node red, where farmer can monitor and control irrigation remotely.

8.CHANNELS of BEHAVIOUR CH

ONLINE

What kind of actions do customers take online? Extract online channels

OFFLINE

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

Online :
These techniques enhances the agricultural value. Farmers can know what crop to be grown in advance with the use of technologies.
Offline :
Farmers are only known about the previous information about the field and due to that they can face some losses.

Identify strong TR & EM