Project Title: **SMARTFARMER** - IoT Enabled Smart Farming Application **Project Design Phase-I - Solution Fit Template** **Team ID :** PNT2022TMID05092

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

CS

The Customers of this product are the farmers who cultivate crops. Our aim is to assist, aid and help them to monitor the field parameters. This product saves the agriculture from extinction.

6. CUSTOMER CONSTRAINTS

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

Deployment of huge number of sensors is difficult. It requires an unlimited or continuous internet connection to be successful.

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?

The irrigation process is automated using IoT. Weather data and field parameters were obtained and processed to automate the process of irrigation. The drawbacks are high cost of installation, efficient only for short distance, difficulty in storing the data.

Explore AS, differentiat

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

2. JOBS-TO-BE-DONE / PROBLEMS

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

The objective of this product is to obtain the different field parameters using sensor and process it using a central processing system. Cloud is used to store and transmit the data by using IoT. Weather APIs are employed to assist the farmer in making decision through a mobile application.

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?

The frequent change or unpredictable weather and climate, made it difficult for the farmers to do agriculture. These factors play a major role in making decision whether to water the plant or not. The monitoring of the field is hard when the farmer is out of station, thus leading to crop damage.

7. BEHAVIOUR

BE

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

Using proper drain system to overcome the effects of excess water due to heavy rain. Using hybrid varieties of crop that are resistant to pests

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

TR & EM

3. TRIGGERS

TR

What triggers customers to act? I

Farmers facing issues in providing prover irrigation. No proper supply of water leads to reduced production which affects the profit level of the farmer. Farmer's struggle to predict the weather.

4. EMOTIONS: BEFORE / AFTER

EM

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

10. YOUR SOLUTION

SL

Our product collects the data from different types of sensors and it sends the value to the main server. It also collects the weather data from the weather API. The ultimate decision, whether to water the crop or not is taken by the farmer using mobile application.

BEFORE

- Lack of knowledge in weather forecasting
- Random decisions
- Low yield
- Low income

8. CHANNELS of BEHAVIOUR

CH

8.1 ONLINE

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

8.2 OFFLINE

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

AFTER:

- Data from reliable resource
- Correct decision
- High yield
- High inc.

Identify