Project Title: Smart Farmer – IOT Enabled Smart Farming Application

Solution Fit

Team ID: PNT2022TMID36144

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

this product is a farmer who grows crops. Our goal is to help them, monitor field parameters remotely. This product saves agriculture from extinction

6. CUSTOMER CONSTRAINTS C

Using a more number of sensors is difficult. The continuous internet connection is required for success.

5. AVAILABLE SOLUTIONS AS

The irrigation process is automated using IoT. Meteorological data and field parameters were collected and processed to automate the irrigation process. Disadvantages are efficiency only over short distances, and difficult data storage.

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS J&P

The purpose of this product is to use sensors to acquire various field parameters and process them using a central processing system. The cloud is used to store the data using IoT. The Weather API is used to help farmers make decisions. Farmers can make decisions

9. PROBLEM ROOT CAUSE RC

Frequent changes and unpredictable weather and climate made it difficult for farmers to engage in agriculture. These factors play an important role in deciding whether to water your plants. Fields are difficult to monitor when the farmer is not at the field, leading to crop damage.

7. BEHAVIOUR BE

Use a proper drainage system to overcome the effects of excess water from heavy rain. Use of hybrid plants that are resistant to pests.

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

3. TRIGGERS TR

Farmers struggle to provide adequate irrigation. Inadequate water supply reduces yields and affects farmers' profit levels. Farmers have a hard time predicting the weather

4. EMOTIONS: BEFORE / AFTER EM

BEFORE: Lack of knowledge in weather forecasting →Random decisions →low yield. AFTER: Data from reliable source → correct decision →high yield

10. YOUR SOLUTION SL

Our product collects data from various types of sensors and sends the values to our main server. It also collects weather data from the Weather API. The final decision to irrigate the crop is made by the farmer using a mobile application.

8. CHANNELS of BEHAVIOUR CH

ONLINE: Providing online assistance to the farmer, in providing knowledge regarding the pH and moisture level of the soil. Online assistance to be provided to the user in using the product

OFFLINE: Awareness camps to be organized to teach the importance and advantages of the automation and IoT in the development of agriculture