**Project Title:** **Smart Farmer-IOT Enabled Smart Farming Application Project Design Phase-I** - **Solution Fit Team ID: PNT2022TMID02439**

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

**Explore AS, differentiate**

**Deﬁne CS, ﬁt into CC**

**AS**

**5. AVAILABLE SOLUTIONS**

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

Deployment of huge number of sensor is diffcult.it requires an unlimited or continuous internet connection to be successful

**CC**

**6. CUSTOMER CONSTRAINTS**

**CS**

**1. CUSTOMER SEGMENT(S)**

The customer for this product is a farmer who grows crops.our goal is to help them,moniter field parameter remotely.This product saves agriculture from extinction.

**Explore AS, differentiate**

**Define CS, fit into CC**

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.

**BE**

**7. BEHAVIOUR**

**RC**

**9. PROBLEM ROOT CAUSE**

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

**J&P**

**2. JOBS-TO-BE-DONE / PROBLEMS**

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. The farmer could take decision through a mobile application.

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

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| **Identify strong TR & EM**  **Identify strong TR & EM** | **3. TRIGGERS TR**  Farmers facing issues in providing proper 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 | **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. | 1. **CHANNELS of BEHAVIOUR CH**   **8.1 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  **8.2 OFFLINE**  Awareness camps to be organized to teach the importance and advantages of the automation and IoT in the development of agriculture |  |
| **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 |