**Project Title:** SmartFarmer - IoT Enabled smart farmer **Project name :** Solution fit **Team ID:** PNT2022TMID12127



**1.** Customer Segment(S)

**6.** Customer Constrains

**CC**

AVAILABLE SOLUTIONS

**AS**

**CS**

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.

Using many sensors is difficult. An unlimited or continuous internet connection is required for success.

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

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

**9.**PROBLEM ROOT CAUSE

**RC**

**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.

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.

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 and transmit data using IoT. The Weather API is used to help farmers make decisions. Farmers can make decisions through mobile applications.

**Explore AS, differentiate**

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

**Define CS, fit into CC**

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



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|  | **3.** TRIGGERS | **ľR** |  | 10. YOUR SOLUTION **SL** | 8.CHANNELS OF BEHAVIOUR **CH** |  |
| . |  |  | 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. | 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. |
| 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.** EMOTION’S: BEFORE / AFTER **EM**  BEFORE: Lack of knowledge in weather forecasting →  Random decisions → low yield.  AFTER: Data from reliable source → correct decision →  high yield. | | |