Project Title: **SmartFarmer - IoT Enabled Smart Farming Application**   **Project Design Phase-I - Solution Fit**   **Team ID: PNT2022TMID32919**

1. CUSTOMER SEGMENT(S)   CS

Due to strict lockdowns in the past and social isolation, migrant labours has been relocated to places where agriculture is more dependent on it. As a result, many farmers are implementing smart agriculture techniques like precision farming to track the growth of their crops.

6. CUSTOMER CONSTRAINTS   C

Smart agriculture requires accessibility and the availability of the internet constantly. The use of technology must be understood and learned in order to use the smart-based equipment. This is a significant obstacle to the widespread adoption of this technology.

5. AVAILABLE SOLUTIONS   AS

- Remote equipment
- monitoring
- sensor based field and resource mapping
- remote crop monitoring
- smart pest management
- climate monitoring and forecasting

2. JOBS-TO-BE-DONE / PROBLEMS

- Water Consumption.
- Soil Degradation.
- Efficiency and Yield.

.

9. PROBLEM ROOT CAUSE   RC

Working by hand takes more time and is more likely to make mistakes.

7. BEHAVIOUR   BE

Reduced costs: Automation of sowing, treatments and harvesting in the case of agriculture reduces the use of resources.

Better quality: Analysis of the quality of the produce obtained in relation to the strategies applied makes adjustments possible to increase subsequent production quality.

3. TRIGGERS   **TR**

- ➢ High adoption costs
- ➢ Security concerns.
- ➢ Lack of information,

4. EMOTIONS: BEFORE / AFTER   **EM**

Before: Crop monitoring is impossible, it is impossible to provide regular updates on climate change, and the cost of the equipment is high.

After: Everything is now simple, and users of this application are impressed with it.

10. YOUR SOLUTION   **SL**

Smart farming, which uses sensors and automated irrigation techniques, can track agricultural land conditions such as temperature and soil moisture.

Farmers could then keep an eye on their crops from anywhere.

The integration of these sensors and connecting the sensor data to the analytics powering automation and response actions are two challenges of a smart agriculture system. The aforementioned issues are resolved, and customers are given effective solutions.

8. CHANNELS of BEHAVIOUR   **CH**

8.1ONLINE

It collects data and periodically updates. Farmers would be able to monitor their crops   from anywhere using this.

8.2OFFLINE

Making optimum use of information and communication technology for agricultural development and output.