Problem-Solution fit canvas 2.0

IOT SMART FARMING APPLICATION

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

- Agriculturists
- horticulturists
- People who do small scale planting

6. CUSTOMER CONSTRAINTS — CC

An important and unexpected factor in the experiments was the impact of the network.

This IoT based system was successful in replicating a large-scale smart farm environment considering the number of sensors.

5. AVAILABLE SOLUTIONS — AS

- Modernizing the current traditional methods of agriculture.
- Internet of Things (IoT) enables various applications of crop growth monitoring and selection, automatic irrigation decision support.
- Automatically irrigating the field.

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

Agriculture plays a vital role in the development of agricultural countries. Some issues concerning agriculture have been always hindering the development of the country. There are increasing pressures from climate change, soil erosion and biodiversity loss and from consumers' changing tastes in food and concerns about how it is produced. The natural world that farming works with – plants, pests and diseases – continue to pose their own challenges.

9. PROBLEM ROOT CAUSE — RC

Farmers must meet the changing needs of our planet and the expectations of regulators, consumers, and food processors and retailers.
Farmers face a variety of issues, such as how to:
• Handle soil erosion, climate change, and biodiversity loss
• Meet shifting consumer preferences and expectations
• Satisfy growing consumer demand for more nutritious food

7. BEHAVIOUR — BE

One of the greatest advantages of this smart irrigation system is its ability to save water. In general, traditional watering methods can waste as much as 50% of the water used due to inefficiencies in irrigation, evaporation and overwatering. Our system use sensors for real-time or historical data to inform watering routines and modify watering schedules to improve efficiency. Users can configure these systems to manage irrigation on demand.

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

Identify strong TR & EM

3. TRIGGERS — TR

- Cope with climate change, soil erosion and biodiversity loss
- Satisfy consumers' changing tastes and expectations
- Meet rising demand for more food of higher quality

4. EMOTIONS: BEFORE / AFTER — EM

Farmers faced loss due to wrong prediction due to lack of knowledge in technology but now they can seek a hike in their initial investment in their field

10. YOUR SOLUTION — SL

We are about to propose a solution for monitoring different parameters of his field like soil moisture, temperature, and humidity using sensors such as soil moisture sensors, temperature sensors and a humidity sensor. Capacitive soil moisture sensors measure or estimate the amount of water in the soil. These sensors can be stationary or portables such as handheld probes. Stationary sensors are placed at the predetermined locations and depths in the field, whereas portable soil moisture probes can measure soil moisture at several locations. A temperature sensor is for detecting and measuring the hotness and coolness present in the environment and converts those inputs into an electrical signal. A humidity sensor is to detect and measure the water vapour or water droplets present in the atmospheric air and with those inputs it measures the humidity present in the air.

8. CHANNELS of BEHAVIOUR — CH

- Farmers can monitor all the sensor parameters by using a web or mobile application even if the farmer is not near his field. Watering the crop is one of the important tasks for the farmers.
- They can make the decision whether to water the crop or postpone it by monitoring the sensor parameters and controlling the motor pumps from the mobile application itself.

Extract online & offline CH of BE

AMALTAMA