

**VELAMMAL ENGINEERING COLLEGE**

**SMART FARMERS – IOT ENABLED  
FARMING APPLICATION**

**PROBLEM SOLUTION FIT**

**Team Id-PNT2022TMID23510**

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

CS

- The chief users and customers of our product are Farmers.
- We tend to provide an assistance for a remote monitoring of crop segments and field which helps in improving the crop cultivation techniques and make it easier

6. CUSTOMER CONSTRAINTS

CC

- Customer can't rely upon a product that is complicated to use. Complex systems are prominently avoided by the farmers.
- A cost effective system is expected for continuous use of the proposed project.
- When there is no proper pest control and identification

5. AVAILABLE SOLUTIONS

AS

The available solutions for the smart farming culture are

- Soil monitoring
- Automation in cultivation
- Temperature control

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS

J&P

- No proper irrigation
- Pest and animal invasion in fields
- Unpredicted weather and climate
- Lack of improper Monitoring of soil
- Usage of unnecessary fertilizer

9. PROBLEM ROOT CAUSE

RC

- Lack of monitoring the fields
- No usage of modern technologies
- Lack of knowledge or awareness of technologies
- High cost of investment
- Need of internet facilities

7. BEHAVIOUR

BE

- Aware about new technologies and implementing it for better progress
- Finding smarter ways to solve the problems
- Optimizing the usage of power and internet facilities

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

Identify  
strong  
TR & EM

### 3. TRIGGERS TR

The customer would be subsidizing his costs. He would be comparing his neighbour's electricity bills with his bill. the neighbour's bill may go down, but his bill will go up and so we would be prefer installing solar panel

### 4. EMOTIONS: BEFORE / AFTER EM

When faced with a crisis, they would feel weak and insecure. by analysing the problem properly and self-motivating the customer can gain confidence.

### 10. YOUR SOLUTION SL

- The advent of technology has helped multiple sectors in attaining profitability.
- One such sector is agriculture. Internet of Things (IoT) implementation in this field has resulted in the term smart farming.
- IoT in smart farming is the future of precision farming and results in high quality produce and healthy cattle.
- With the use of many smart farming sensors, and wearables, one can get real-time update with a touch of the screen

### 8. CHANNELS of BEHAVIOUR CH

#### 1. ONLINE

Ubidots is an IoT platform that helps farmers to connect all their devices (weather station, irrigation system, soil moisture sensor, etc.) to the internet and manage them through a single dashboard. With the Ubidots IoT platform, farmers can: monitor in real-time the status of all their devices

#### 2. OFFLINE

Agriculture is one of the major verticals to incorporate both ground-based and aerial drones for crop health assessment, irrigation, crop monitoring, crop spraying, planting, soil and field analysis, and other spheres. Since drones collect multispectral, thermal, and visual imagery while flying, the data they gather provide farmers with insights into a whole array of metrics: plant health indices, plant counting and yield prediction, plant height measurement, canopy cover mapping, field water pond mapping, scouting reports, stockpile measuring, chlorophyll measurement, nitrogen content in wheat,

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