Problem-Solution fit canvas 2.0

1. CUSTOMER SEGMENT(S) — CS

The customer for this product is farmers. Our goal is to help them, monitor the farmland with the help of sensor and automate the irrigation system & allow farmers to monitor their field conditions.

Define CS, fit into CC

6. CUSTOMER CONSTRAINTS — CC

One huge drawback of smart farming is that it requires an unlimited or continuous internet connection to be successful. This means that in rural communities, where we have mass crop production, it is completely impossible to operate this farming method.

5. AVAILABLE SOLUTIONS — AS

The irrigation process is automated by using IoT. The various parameters were collected and processed to automate the motor on or off.

Disadvantages are it needs availability of internet continuously

Explore AS, differentiate

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

The purpose of the product is to use sensors which senses the values of various parameters and the process them using a ESP32. The cloud is used to store and transmit data using IoT. And Automatically Pour water in the crops so manual requirement is not necessary, then Farmer can easily monitor through Mobile in their situated place.

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

9. PROBLEM ROOT CAUSE — RC

The Major Problem is climate changes, that affect farmers' ability to grow the crops. Increasingly volatile weather and more extreme events – like floods and droughts – change growing seasons, limit the availability of water, allow weeds, pests and fungi to thrive, and can reduce crop productivity.

7. BEHAVIOUR — BE

Irrigation systems to overcome water deficits and maximize crop yields. Use of hybrid plants that are resistant to pests.

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

3. TRIGGERS — TR

A Trigger is an event that causes a farmer to have a clear need, which usually converts into a sense of purpose and urgency in their buying the product.

Identify strong TR & EM

4. EMOTIONS: BEFORE / AFTER — EM

BEFORE: Lack of knowledge in correct time irrigation, loss of time, loss of water, low yield.

AFTER: Datas from various parameters for correct irrigation process, water saved, high yield.

10. YOUR SOLUTION — SL

Device Collect the data from the different Sensor and send to the Processor. The cloud is used to store the data and then final datas will be displayed in the Mobile application. Farmer can easily know in their situated place.

8. CHANNELS of BEHAVIOUR — CH

ONLINE: Providing Online Source to farmer, can help to monitor Agriculture land, Temperature, Soil Moisture, Humidity. This would enable the farmers to Monitor crops from anywhere.

OFFLINE: the app will communicate directly with the system through a local access point. The communication method used for offline mode was local WiFi + MQTT protocol to a nearby device.

Extract online & offline CH of BE

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