Project Title: Smart Farmer – IOT Enabled Smart Farming Application

Project Design Phase- I - Solution Fit

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Define CS, fit into CC

1. Customer Segment(S)

CS

Who is your customer?
i.e. working parents of 0-5 y.o. kids

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.

6. Customer

CS

What constíaints píevent youí customeísíom taking action oí limit theií choices of solutions?
i.e. spending poweí, budget, no cash, netwoík connection, available devices

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

5. AVAILABLE SOLUTIONS

AS

Which solutions aíe available to the customeís when they //acethe píoblem. oí need to get the job done? What have they tíied in the past? What pios & cons do these solutions have? i.e. penand papeí

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.

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS

J

customeís? Theíe could be moíe than one; exploíe

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.

9.PROBLEM ROOT CAUSE

What is the íeal íeason that this píoblem exists? What isthe back stoíy behind this job?

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.

7. BEHAVIOUR

What does youí customeí do to addíess the píoblem and get thejob done?
i.e. Diíectly íelated: find the íight solaí panel installeí, calculate usage and benefits; indiíectly associated: customeís spend fiee time on volunteeíing woík (i.e. Gíeenpeace)

Use a proper drainage system to overcome the effects of excess water from heavy rain. Use of hybrid plants that are resistant to pests.

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

3. TRIGGERS

What tiiggeis customeis to act? i.e., seeing theií neighboí installingsolaí panels, ieading about a moie efficient solution in the news.

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

How do customeis feel when they face a pioblem of a job and afteiwaids?
i.e. lost, insecuie > confident, in contiol - use it in youi communicationstiategy & design.

BEFORE: Lack of knowledge in weather forecasting → Random decisions → low yield.

AFTER: Data from reliable source → correct decision → high yield.

10. YOUR SOLUTION

If you aie woiking on an existing business, wiite down youi cuiient solution fiist, fill in the canvas, and check how much it fits ieality.
If you aie woiking on a new business pioposition, then keep it blank untilyou fill in the canvas and come up with a solution that fits within customei limitations, solves a pioblem and matches customei behavioi.

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.

8.CHANNELS OF BEHAVIOUR

8.1 ONLINE
What kind of actions do customeis take online? Extiact online channels fiom 7 #

8.2 OFFLINE
What kind of actions do customeis take offline? Extiact offline channels fiom 7 anduse #them foi customei development.

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.