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'he customeí foí this píoduct is a faímeí who gíows cíops. Ouí goal is to help them, monitoí field paíameteís íemotely. I'his píoduct saves agíicultuíe fíom extinction.

6. CUSTOMER — CC

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

Using a laíge numbeí of sensoís is difficult. An unlimited oí continuous inteínet connection is íequiíed foí success.

5. AVAILABLE SOLUTIONS — AS

Which solutions aíe available to the customeís when they face the pioblem

oí need to get the job done? What have they tíied in the past? What píos & cons do these solutions have? i.e. pen and papeí

I'he iííigation píocess is automated using IoI'. Meteoíological data and field paíameteís weíe collected and píocessed to automate the iííigation píocess. Disadvantages aíe efficiency only oveí shoít distances, and difficult data stoíage.

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

Which jobs-to-be-done (oí pioblems) do you addíess foí youí customeís? There could be moíe than one; explore diffeíent sides.

I'he puípose of this píoduct is to use sensoís to acquiíe vaíious field paíameteís and píocess them using a centíal píocessing system. The cloud is used to stoíe and tíansmit data using IoI'. I'he Weatheí API is used to help decisions. Faímeís can make decisions thíough mobile applications.

9. PROBLEM ROOT CAUSE — RC

What is the íeal íeason that this pioblem exists? What is the back

Fíequent changes and unpíedictable weatheí and climate made it difficult foí faímeís to engage in agíicultuíe. I'hese factoís play an impoítant íole in deciding whetheí to wateí youí plants. Fields aíe difficult to monitoí when the faímeí is not at the field, leading to cíop damage.

7. BEHAVIOUR — BE

What does youí customeí do to addíess the pioblem and get the job done?
i.e. díiectly íelated: find the iight solaí panel installeí, calculate usage and benefits; indiiectly associated: customeís spend fíee time on volunteeíing woík (i.e. Gíeenpeace)

Use a píopeí díainage system to oveícome the effects of excess wateí fíom heavy íain. Use of hybíid plants that aíe íesistant to pests.

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

3. TRIGGERS

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What triggers customers to act? i.e., seeing their neighbor installing solar panels, reading about a more efficient solution in the news.

Faímeís stíuggle to píovide adequate iííigation. Inadequate wateí supply íeduces yields and affects faímeís' píofit levels. Faímeís have a haíd time píedicting the weatheí.

4. EMOTIONS: BEFORE / AFTER

EM

How do customeís feel when they face a píoblem oí a job and afteíwaíds?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

BEFORE: Lack of knowledge in weatheí foíecasting →Random decisions →low yield.
AFTER: Data fíom íeliable souíce → coíiect decision →high yield

10. YOUR SOLUTION

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If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.
If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

Ouí píoduct collects data fíom vaíious types of sensoís and sends the values to ouí main seíveí. It also collects weatheí data fíom the Weatheí API. The final decision to iííigate the cíop is made by the faímeíusing a mobile application.

8. CHANNELS of BEHAVIOUR

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8.1 ONLINE

What kind of actions do customeís take online? Extíact online channels fíom #7

8.2 OFFLINE

What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

ONLINE: Píoviding online assistance to the faímeí, in píoviding knowledge íegaíding the pH and moistuíe level of the soil. Online assistance to be píovided to the useí in using the píoduct

OFFLINE: Awaíeness camps to be oíganized to teach the impoítance and advantages of the automation and lot in the development of agíicultuíe.