Project Title: IOT Based Smart Crop Protection System for Agriculture

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Problem-Solution fit canvas 2.0

AMALTAMA

1. CUSTOMER SEGMENT(S) — CS

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

- Farmers those who are nurture crops
- Students who are interested in Agriculture

6. CUSTOMER CONSTRAINTS — CC

What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

- Lack of literacy or general knowledge stops the farmers from finding solutions
- Retarded revenue or capital is one ofthe main obstacles of thefarmer

5. AVAILABLE SOLUTIONS — AS

Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

- To Protect the crops from birds and animals which destroy the crops.
- To monitor the moisture, temperature and humidity in the fields.

Define CS, fit into CC

Explore AS, differentiate

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

Which jobs-to-be-done (or problems) do you address for your customers?
There could be more than one; explore different sides.

- It's complex to monitor and control
- Aware of harmful insects and pathogens which affects the crops
- Could not be able to know if the application correctly works or not

9. PROBLEM ROOT CAUSE — RC

What is the real reason that this problem exists?
What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

- We can't set a person to guard, If set the guard couldn't able to cover the whole farm in the night times
- If any works other than farming is to be done by the farmer, he could able to see the status of the farm remotely

7. BEHAVIOUR — BE

What does your customer do to address the problem and get the job done? i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

- Direct related: The farmer himself tries to find a solution for the problem
- Indirect associated: The sources such as power or network should be uninterrupted

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

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

3. TRIGGERS — TR

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

- Visiting the government's agri-tech sites and gain knowledge and share with the other farmers

10. YOUR SOLUTION — SL

What kind of solution suits Customer scenario the best?
Adjust your solution to fit Customer behaviour, use Triggers, Channels & Emotions for marketing and communication.

- Suggesting to use the proposed application to protect crops and monitor the conditons in the field.

8.1 ONLINE CHANNELS — CH

What kind of actions do customers take online?
Extract online channels from box #7 Behaviour

- Farmers can monitor the movement of the animals in the field
- Monitor and operate the conditons and motors or sprinklers through mobile.

Define CS, fit into CL

Explore AS, differentiate

4. EMOTIONS: BEFORE / AFTER — EM

How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

- BEFORE: The farmers were dejected and displeased because of the crop diseases
- AFTER: The farmers will be delight and cultivate the crops in good manner.

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.

8.2 OFFLINE CHANNELS — CH

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

- Cultivators can collect the preventive measures from the other farmers
- Students can perform a case study and the visit the farm lands also

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