Project Design Phase-I

Problem Solution Fit

Date	**01 October 2022**
Team ID	**PNT2022TMID43619**
Project Name	**IoT based smart crop protection system for agriculture**

OFFLINE: The control action is taken by the farmers to monitor the farms.

ONLINE: The Data send through application for the farmers to know about the farms.

Direct related: Tries to find a solution to prevent this problem

Indirect related: Located in rural where internet connectivity might not be strong enough to facilitate fast transmission speeds.

Monitor different parameters and mobile or web application make easily to farm the crop field .

"IoT based Smart crop protection system for agriculture" !!

It help farmers grow more food on less land by protection crops from pests, diseases and weeds as well as raising productivity per hectare.

1)If temperature ,PH level ,humidity & light intensity makes the serious cause for the environment.

2)Farmer affected by less productivity which will affect in their profit.

1)High adoption costs , security concerns. 2)Not aware of the implementation of IoT in agriculture.

- It's difficult to monitor and control
- Ain't known if the application doesn't work properly.

Farmer's ! Who's not near his field

Create opportunities to lift people out of poverty in developing nations. (Over 60%)

BEFORE: Finances, Heavy work overload and conflict in relationship.

AFTER: It will easier to make more yield in field

Problem-Solution Fit canvas

Purpose / Vision

Define CS, fit into CL

1. CUSTOMER SEGMENT(S) CS

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

6. CUSTOMER LIMITATIONS EG. BUDGET, DEVICES CL

What limits your customers to act when problem occurs?
Spending power, budget, no cash in the pocket? Network connection?
Available devices?

5. AVAILABLE SOLUTIO

Which solutions are available to the cus
the problem? What had he/she tried in t

Focus on PR, tap into BE, understand RC

2. PROBLEMS / PAINS + ITS FREQUENCY PR

Which problem do you solve for your customer?
There could be more than one, explore different sides.
eg. existing solar solutions for private houses are not considered a good investment (1).

How often does this problem occur?

9. PROBLEM ROOT / CAUSE RC

What is the root of every problem from the list?
eg. People think that solar panels are bad investment right now, because they are too expensive (1.1), and possible changes to the law might influence the return of investment significantly and diminish the benefits (1.2).

7. BEHAVIOR + ITS INTENS

What does your customer do about / arc
or indirectly related to the problem?
eg. directly related: tries different "green
calculators in search for the best deal (1.
for 100% green provider (1.2).
indirectly related: volunteering work (Gr

Identify strong TR & EM

3. TRIGGERS TO ACT TR

What triggers customer to act?
eg. seeing their neighbor installing solar panels (1.1), reading about innovative, more beautiful and efficient solution (1.2)

4. EMOTIONS BEFORE / AFTER EM

Which emotions do people feel before/after this problem is solved?
Use it in your communication strategy.
eg. frustration, blocking (can't afford it) > boost, feeling smart, be an example for others (made a smart purchase)

10. YOUR SOLUTION SL

If you are working on existing business - write down existing solution first, fill in the canvas and check how much does it fit 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. CHANNELS of BEHA

ONLINE
Extract channels from Behavior block

OFFLINE
Extract channels from Behavior block a