Project Design Phase-I
Problem Solution Fit Template

Project Title: Smart Farmer-IOT Enabled Smart Farming Application **Team ID:** PNT2022TMID25834

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

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

Proprietary systems in which the farmer is part of a highly integrated food supply chain

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.

Available Devices, Network Connection, Fit to environment

5. AVAILABLE SOLUTIONS A

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 note taking

Livestock tracking and Geo fencing, Smart logistics and warehousing, Smart pest management.
Pros: It follows farmers to maximize yields using minimum resources.
Cons: Rural part of most of the developing countries do not fulfil this requirement.

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

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; explored different sides.

The integration of these sensors and tying the sensor data to the analytics driving automation and response activities.

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.

Poor Internet Connectivity in Farms
High Hardware Costs
Disrupted Connectivity to the cloud

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)

By installing an IOT-powered farming solution, the farmers can interconnect their smartphones and monitor their field activities remotely.

Identify strong TR & EM

3. TRIGGERS

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

A system that is built for monitoring the crop field with the help of sensors and automating the irrigation system.

4. EMOTIONS: BEFORE / AFTER

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.

The hardware and materials used to develop prototype allowed us to make an efficient and accurate, as well as cheap product. It is economical and easily installable for farmer as well.

10. YOUR SOLUTION

SL

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.

Current solution is precision agriculture. It uses digital technologies. By using sensors to collect data on weather, soil moisture, crop health and real-time locational asset tracking.

8. CHANNELS of BEHAVIOUR

CH

8.1 **ONLINE**
What kind of actions do customers take online? Extract online channels from #7

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

Online: It uses robots, drones, remote sensors for monitoring crops, surveying, mapping the fields and providing data.

Offline: The application of sensors and automated irrigation practices can help monitor agricultural land, temperature, soil moisture.

Identify strong TR & EM