

Problem – Solution Fit

Date	10 October 2022
Team ID	PNT2022TMID51110
Project Name	IOT Based Smart Crop Protection System for Agriculture
Maximum Marks	2 Marks

Problem – Solution Fit Template:

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why

Purpose:

- ☐ Solve complex problems in a way that fits the state of your customers.
- ☐ Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- ☐ Sharpen your communication and marketing strategy with the right triggers and messaging.
- ☐ Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- ☐ **Understand the existing situation in order to improve it for your target group.**

Template:

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) — #One of the main hazards to diminishing crop yield is crop damage brought on by animal and bird attack. #Crop output is ultimately impacted by soil moisture conditions, which influence plant root water absorption and leaf transpiration.	6. CUSTOMER CONSTRAINTS ✓ A suitable irrigation system ✓ There are sensors. ✓ Given information in a few of seconds	5. AVAILABLE SOLUTIONS #A soil moisture sensor measures the current soil moisture, produces better crops #Pesticides, often known as chemical crop protection agents, aid in the control of insects, illnesses, fungi, and other unwanted pests.	Explore AS
	2. JOBS-TO-BE-DONE / PROBLEMS JP ✓ Monitoring the animals entry ✓ Observing the entry of the animals ✓ Reduce agricultural losses is necessary.	9. PROBLEM ROOT CAUSE RC #The issue of the labour scarcity is addressed, and the cost budget is reduced. #The device continuously and automatically checks the humidity level in plants and waters them even when there are no physical personnel present.	7. BEHAVIOUR BE #Tensiometers gauge soil moisture tension in an indirect manner. #Electric fences are designed to shock animals that come into touch with them with electricity, keeping them from attempting to cross the fence	
Focus on JAP, map into BE	3. TRIGGERS TR #Results from a soil moisture sensor are immediately available. #Increasing crop yield while reducing fertiliser expenditures	10. YOUR SOLUTION SL ✓ Crop security using an IoT platform from attacks by birds and other animals ✓ IoT based crop protection system against birds and wild animals attacks	8. CHANNELS of BEHAVIOUR ONLINE Farmers used to receive data from data analytics frequently. Using IoT, data storage is also secure. OFFLINE The suggested system has several sensors that can measure and ensure crop quality based on elements like temperature, soil moisture, and humidity.	Focus on JAP, map into BE
	4. EMOTIONS: BEFORE / AFTER EM BEFORE: Anxiety, diminished human capacity, despair, and longer time commitment AFTER: Reducing time spent and raising profitability			

