

Project Design Phase-I

Problem Solution Fit

Date	03 November 2022
Team ID	PNT2022TMID12470
Project Name	IoT based smart crop protection system for agriculture

Define CS, fit into CL	1. CUSTOMER SEGMENT(S) CS <div style="border: 1px solid black; padding: 5px; min-height: 50px;">Farmers are the customers</div>	6. CUSTOMER LIMITATIONS <small>EG. BUDGET, DEVICES</small> CL <div style="border: 1px solid black; padding: 5px; min-height: 50px;"> 1) High adoption costs , security concerns. 2) Not aware of the implementation of IoT in agriculture. </div>	5. AVAILABLE SOLUTIONS <small>PLUSES & MINUSES</small> AS <div style="border: 1px solid black; padding: 5px; min-height: 50px;">Monitor different parameters and mobile or web application make easily to farm the crop field .</div>	Explore AS, differentiate
	2. PROBLEMS / PAINS <small>+ ITS FREQUENCY</small> PR <div style="border: 1px solid black; padding: 5px; min-height: 50px;"> 1) It's difficult to monitor and control 2) Ain't known if the application doesn't work properly. </div>	9. PROBLEM ROOT / CAUSE RC <div style="border: 1px solid black; padding: 5px; min-height: 50px;"> 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. </div>	7. BEHAVIOR <small>+ ITS INTENSITY</small> BE <div style="border: 1px solid black; padding: 5px; min-height: 50px;"> 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. </div>	
Identify strong TR & EM	3. TRIGGERS TO ACT TR <div style="border: 1px solid black; padding: 5px; min-height: 50px;">Create opportunities to lift people out of poverty in developing nations. (Over 60%)</div>	10. YOUR SOLUTION SL <div style="border: 1px solid black; padding: 5px; min-height: 50px;"> <i>"IoT based Smart crop protection system for agriculture" !!</i> It help farmers grow more food on less land by protection crops from pests, diseases and weeds as well as raising productivity per hectare. </div>	8. CHANNELS of BEHAVIOR CH <div style="border: 1px solid black; padding: 5px; min-height: 50px;"> ONLINE: The Data send through application for the farmers to know about the farms. </div>	Extract online & offline CH of BE
	4. EMOTIONS <small>BEFORE / AFTER</small> EM <div style="border: 1px solid black; padding: 5px; min-height: 50px;"> BEFORE: Finances, Heavy work overload and conflict in relationship. AFTER: It will easier to make more yield in </div>		<div style="border: 1px solid black; padding: 5px; min-height: 50px;"> OFFLINE: The control action is taken by the farmers to monitor the farms. </div>	