Project Design Phase-I

Problem Solution Fit

Date	09 October 2022
Team ID	PNT2022TMID16680
Project Name	IoT based smart crop protection system for agriculture

<table>
<tr><td>Define CS, fit into CL</td><td>1. CUSTOMER SEGMENT(S)   CS

Farmer's ! Who's not near his field</td><td>6. CUSTOMER LIMITATIONS EG. BUDGET, DEVICES   CL

1)High adoption costs , security concerns.
2)Not aware of the implementation of IoT in agriculture.</td><td>5. AVAILABLE SOLUTIONS PLUSES & MINUSES   AS

Monitor different parameters and mobile or web application make easily to farm the crop field .</td><td>Explore AS, differentiate</td></tr>
<tr><td>Focus on PR, tap into BE, understand RC</td><td>2. PROBLEMS / PAINS + ITS FREQUENCY   PR

• It's difficult to monitor and control
• Ain't known if the application doesn't work properly.</td><td>9. PROBLEM ROOT / CAUSE   RC

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.</td><td>7. BEHAVIOR + ITS INTENSITY   BE

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.</td><td>Focus on PR, tap into BE, understand RC</td></tr>
<tr><td>Identify strong TR & EM</td><td>3. TRIGGERS TO ACT   TR

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

4. EMOTIONS BEFORE / AFTER   EM

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

AFTER: It will easier to make more yield in</td><td>10. YOUR SOLUTION   SL

<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.</td><td>8. CHANNELS of BEHAVIOR   CH

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

OFFLINE: The control action is taken by the farmers to monitor the farms.</td><td>Extract online & offline CH of BE</td></tr>
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