Project Title: Estimate the Crop Yield Using Data Analytics

Project Design Phase-I - Solution Fit Template   **Team ID: PNT2022TMID35575**

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) `CS`
- Farmers
- Farmers require accurate yield estimates for a number of reasons: Extensive personal experience is essential for estimating yield at early stages of growth. As crops near maturity, it becomes easier to estimate yield with greater accuracy.

6. CUSTOMER CONSTRAINTS `CC`
- Shortage or lack of water
- Quality of soil and fertilizers used
- Lack of Awareness
- Unable to repay loans
- Network Issues

5. AVAILABLE SOLUTIONS `AS`
- Most of the governments are already taking many measures like scientific farming, improved technology for the good of the farmers.
- Agro forestry is one of the oldest farming methods that has been used since earlier times.

Explore AS, different

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

2. JOBS-TO-BE-DONE / PROBLEMS
Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

- Help them understand the usage of prediction and software for better results in agriculture
- Data is to be collected and awareness should be brought in order to orchestrate the above mentioned.

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.

- Water shortage
- The cultivators and related professionals lose their income while facing the wrath of unemployment.
- Lack of cheap and efficient means of transportation.
- Erratic nature of monsoons also affects agriculture production on a large scale.
- lack of alternative employment opportunities.

7. BEHAVIOUR `BE`
What does your customer do to address the problem and get the job done?

- Attending Individualized programs that meet the needs of specific regions are more likely to succeed.
- Try to seek help from the Government
- Take up non-natural means of cultivation for faster cultivation
- Use of pesticides and fertilizers to maximize the cultivation

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3. TRIGGERS `TR`
Fear in Production Risks, Marketing Risks, Financial Risks, Legal and Environmental Risks, Human Resource Management Risks will make the farmers to see their neighbor farmers to have better yield by usage of non-natural items like artificial manure and pesticides

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.

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.

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.

EM

Many farmers are attempting suicide as they couldn't get proper yeilding of crops, which may lead to shartage of food

We will provide a better way to predict the crop that suits the most and help to increase the cultivation.
An interactive dashboard helps to monitor events and activities at a glance by providing key insights and analysis about our data on one or more pages or screens.

- It increases agricultural production by creating relevant forecasts, scheduling fieldwork, and working in low visibility or at night with the same efficiency as at daytime. An automatic steering system for tractors is also an efficient way of increasing food production.
- Usage of organic manure healthy of productivity