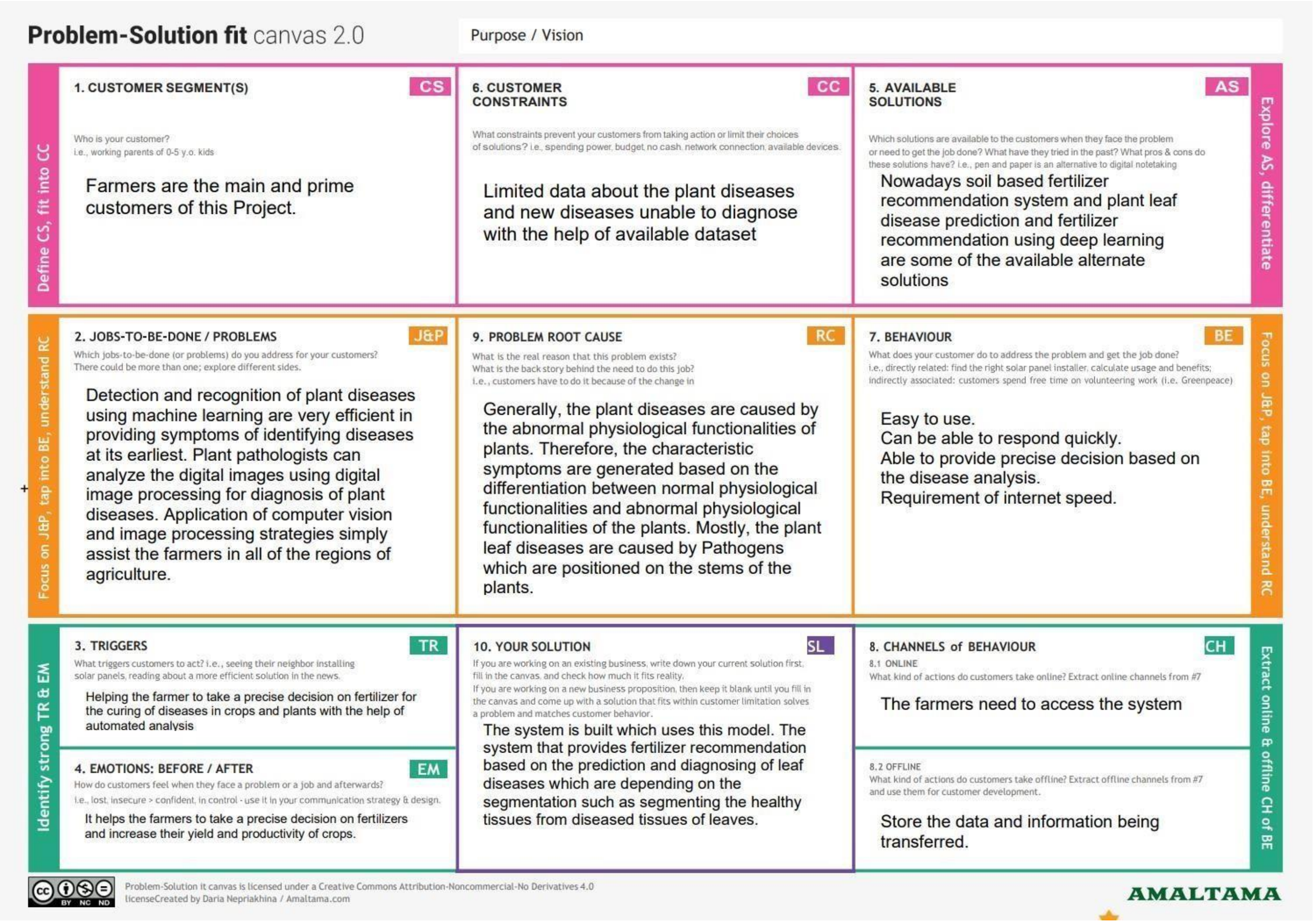
PROJECT DESIGN PHASE-I

Problem Solution Fit

Date	04 November 2022
Team ID	PNT2022TMD10565
Project Name	Fertilizers Recommendation System for Disease Prediction
Maximum Marks	4 Marks


Define CS, fit into CC
Focus on J&P, tap into BE, understand RC
Identify strong TR & EM
Explore AS, differentiate
Focus on J&P, tap into BE, understand RC
Extract online & offline CH of BE
CS
CC
AS
J&P
RC
BE
TR
EM
SL
CH
AMALTAMA

Problem-Solution fit canvas 2.0

Purpose / Vision

1. CUSTOMER SEGMENT(S)

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

Farmers are the main and prime customers of this Project.

6. CUSTOMER CONSTRAINTS

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.

Limited data about the plant diseases and new diseases unable to diagnose with the help of available dataset

5. AVAILABLE SOLUTIONS

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 notetaking

Nowadays soil based fertilizer recommendation system and plant leaf disease prediction and fertilizer recommendation using deep learning are some of the available alternate solutions

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.

Detection and recognition of plant diseases using machine learning are very efficient in providing symptoms of identifying diseases at its earliest. Plant pathologists can analyze the digital images using digital image processing for diagnosis of plant diseases. Application of computer vision and image processing strategies simply assist the farmers in all of the regions of agriculture.

9. PROBLEM ROOT CAUSE

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

Generally, the plant diseases are caused by the abnormal physiological functionalities of plants. Therefore, the characteristic symptoms are generated based on the differentiation between normal physiological functionalities and abnormal physiological functionalities of the plants. Mostly, the plant leaf diseases are caused by Pathogens which are positioned on the stems of the plants.

7. BEHAVIOUR

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)

Easy to use.
Can be able to respond quickly.
Able to provide precise decision based on the disease analysis.
Requirement of internet speed.

3. TRIGGERS

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

Helping the farmer to take a precise decision on fertilizer for the curing of diseases in crops and plants with the help of automated analysis

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.

It helps the farmers to take a precise decision on fertilizers and increase their yield and productivity of crops.

10. YOUR SOLUTION

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 limitation solves a problem and matches customer behavior.

The system is built which uses this model. The system that provides fertilizer recommendation based on the prediction and diagnosing of leaf diseases which are depending on the segmentation such as segmenting the healthy tissues from diseased tissues of leaves.

8. CHANNELS of BEHAVIOUR

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

The farmers need to access the system

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

Store the data and information being transferred.

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