Project Design Phase
Problem – Solution Fit Template

Date	28th June 2025
Team ID	LTVIP2025TMID34819
Project Name	GrainPalette A Deep Learning Odyssey In Rice Type Classification Through Transfer Learning
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:

Problem-Solution fit canvas 2.0

Purpose / Vision

★ AMALTAMA

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS
Who is your customer?
i.e. working parents of 0-5 y.o. kids

- Smallholder rice farmers globally.
- Agriculture extension workers.
- Commercial rice farmers.

6. CUSTOMER CONSTRAINTS — CC
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 financial resources for experts.
- Low tech literacy in some regions.
- Unreliable internet in rural areas.

5. AVAILABLE SOLUTIONS — AS
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

- Expert consultation is costly.
- Guesswork leads to poor yields.
- Manual guides are time-consuming.

Explore AS, differentiate

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

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

- Accurately identify rice type quickly.
- Reduce expert consultation costs.
- Optimize yield & resource use.

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.

- High diversity of rice types.
- Climate change needs new rice types.
- Limited access to expert knowledge.

7. BEHAVIOUR — BE
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)

- Consult local experienced farmers.
- Use visual guides & manuals.
- Rely on their own experience.

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

Identify strong TR & EM

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

- Start of planting/new season.
- Unusual plant growth problems.
- Seek to improve farming practices.

4. EMOTIONS: BEFORE / AFTER — EM
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.

- Before: Frustrated and anxious.
- Before: Burdened by costs.
- After: Confident and empowered.

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.

- AI-powered rice type identification.
- Fast, accurate, and affordable.
- User-friendly mobile/web app.

8. CHANNELS of BEHAVIOUR — CH

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

- Online: Social media, agriforums.

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

- Offline: Field demos, workshops.
- Partnerships with extension services.

Extract online & offline CH of BE