

Project Design Phase

Problem – Solution Fit Template

Date	24 th June 2025
Team ID	LTVIP2025TMID34982
Project Name	Smart Sorting using 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

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 0.8em; color: #007bff;">Define CS, fit into CC</div> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>1. CUSTOMER SEGMENT(S)</div> <div style="background-color: #ffeb3b; padding: 2px 5px; font-size: 0.7em;">CS</div> </div> <p>Farmers, fruit and vegetable vendors, cold storage owners, and agricultural supply chain managers who need to sort produce quickly and accurately.</p> </div> </div>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>6. CUSTOMER CONSTRAINTS</div> <div style="background-color: #ffeb3b; padding: 2px 5px; font-size: 0.7em;">CC</div> </div> <p>Limited budget, low technical expertise, minimal access to high-speed internet, and limited digital literacy.</p> </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 0.8em; color: #007bff;">Explore AS, differentiate</div> </div>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>5. AVAILABLE SOLUTIONS</div> <div style="background-color: #ffeb3b; padding: 2px 5px; font-size: 0.7em;">AS</div> </div> <p>Manual inspection (slow and error-prone), industrial machines (too costly), or relying on experience. These methods lack speed, accuracy, and affordability.</p> </div> </div>
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 0.8em; color: #007bff;">Focus on J&P, tap into BE, understand RC</div> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>2. JOBS-TO-BE-DONE / PROBLEMS</div> <div style="background-color: #ffeb3b; padding: 2px 5px; font-size: 0.7em;">J&P</div> </div> <p>They need to identify spoiled fruits and vegetables early to prevent loss, maintain quality, and improve market trust.</p> </div> </div>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>9. PROBLEM ROOT CAUSE</div> <div style="background-color: #ffeb3b; padding: 2px 5px; font-size: 0.7em;">RC</div> </div> <p>Lack of low-cost, scalable tech that is easy to use and doesn't require complex hardware or fast internet.</p> </div> </div>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>7. BEHAVIOUR</div> <div style="background-color: #ffeb3b; padding: 2px 5px; font-size: 0.7em;">BE</div> </div> <p>Currently rely on manual inspection and peer feedback. Use smartphones for basic tasks like checking prices or watching agricultural content.</p> </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 0.8em; color: #007bff;">Focus on J&P, tap into BE, understand RC</div> </div>
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 0.8em; color: #007bff;">Identify strong TR & EM</div> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>3. TRIGGERS</div> <div style="background-color: #ffeb3b; padding: 2px 5px; font-size: 0.7em;">TR</div> </div> <p>Increase in spoilage rates, customer complaints, or demand for higher quality produce. Also triggered by exposure to AI tools or digital transformation programs.</p> </div> </div>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>10. YOUR SOLUTION</div> <div style="background-color: #ffeb3b; padding: 2px 5px; font-size: 0.7em;">SL</div> </div> <p>Smart Sorting: An AI-powered image classification tool that predicts whether fruits or vegetables are healthy or rotten. Built using VGG16 and trained on 29 classes. Deployed with Flask, it works in any browser and can be accessed locally without cloud dependency.</p> </div> </div>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="flex-grow: 1;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>8. CHANNELS of BEHAVIOUR</div> <div style="background-color: #ffeb3b; padding: 2px 5px; font-size: 0.7em;">CH</div> </div> <p>8.1 ONLINE Watch farming techniques on YouTube, search for apps/tools, and engage in WhatsApp farming groups.</p> <p>8.2 OFFLINE Physically inspect produce, attend agricultural meetups, and consult local vendors or cooperatives.</p> </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: 0.8em; color: #007bff;">Extract online & offline CH of BE</div> </div>

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References:

1. <https://www.ideahackers.network/problem-solution-fit-canvas/>
2. <https://medium.com/@epicantus/problem-solution-fit-canvas-aa3dd59cb4fe>