Problem – Solution Fit Template

Project Design Phase

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Team ID: LTVIP2025TMID34101

Project Name: Clean Tech

Maximum Marks: 2 Marks

Problem – Solution Fit Overview

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 mediumsand channels of behavior.
* Sharpen your communication and marketing strategy with the right triggers andmessaging.
* Increase touch-points with your company by finding the right problem-behavior fit andbuilding trust by solving frequent annoyances, or urgent or costly problems.
* Understand the existing situation in order to improve it for your target group.

Problem – Solution Fit for Clean Tech

Problem Statement

Municipal, industrial, and public waste segregation processes are inefficient, manual, and prone to human error. This leads to improper recycling, increased environmental harm, regulatory issues, and operational delays.

Solution Overview

CleanTech provides an AI-powered waste classification system that leverages transfer learning on pre-trained deep learning models. This solution uses camera-based monitoring and image classification to accurately identify and categorize waste in real-time, automating and optimizing the sorting process.

Customer Segments

* Municipal corporations
* Recycling centers
* Smart city infrastructure providers
* Industrial facilities and factories

Scenario-Based Fit

Scenario 1:

Recycling centers automate sorting of waste using CleanTech’s image recognition system on conveyor belts, improving speed and accuracy while reducing labor costs.

Scenario 2:

Smart cities deploy CleanTech’s technology in public bins to automatically categorize waste (organic, recyclable, general), enhancing source-level segregation and municipal cleanliness.

Scenario 3:

Factories implement CleanTech in disposal areas to detect and direct various industrial wastes (metal, plastic, hazardous) for proper treatment, ensuring compliance and sustainability.