

Project Design Phase Problem – Solution Fit

Date	15 February 2026
Team ID	LTVIP2026TMIDS91602
Project Name	Smart sorting
Maximum Marks	2 Marks

Problem – Solution Fit:

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.

Problem-Solution fit canvas 2.0

Purpose / Vision

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) CS Small-scale fruit & vegetable industry owners Sorting workers Local vendors and packaging units	6. CUSTOMER CONSTRAINTS CC Limited budget for automation Low technical expertise among staff No access to large infrastructure or cloud systems	5. AVAILABLE SOLUTIONS AS Manual sorting by visual inspection Hiring skilled labor for quality checks Buying expensive industrial-grade sorters (not affordable)	Explore AS, differentiate
	2. JOBS-TO-BE-DONE / PROBLEMS J&P Errors while manually sorting produce Reliance on worker experience and availability Inconsistent quality control Frequent customer complaints about spoiled items	9. PROBLEM ROOT CAUSE RC Inadequate and unreliable manual classification of produce Lack of affordable, scalable, and easy-to-use sorting tools Dependence on human vision for complex judgment calls	7. BEHAVIOUR BE High frustration when spoilage is missed Reactive behavior to customer complaints Inconsistent sorting standards among workers	
Identify strong TR & EM	3. TRIGGERS TR Increasing rate of returns and dissatisfaction from customers. Growing competition offering better quality control. Pressure to reduce wastage and improve brand image	10. YOUR SOLUTION SL SmartSorting: A lightweight, offline-ready, AI-based fruit and vegetable sorting tool Uses transfer learning (VGG16) to classify fresh vs. rotten produce with high accuracy Designed for low-resource environments using Flask + local deployment		Extract online & offline CH of BE
	4. EMOTIONS: BEFORE / AFTER EM Before: Stressed, overworked, worried about losses After: Relieved, confident, assured of consistent output	8. CHANNELS of BEHAVIOUR CH Watching YouTube tutorials on AI/ML solutions. Browsing for affordable AI tools for agriculture. Searching forums or blogs for cost-effective tech 8.2 OFFLINE Talking to other vendors at markets Attending agriculture expos or machinery demonstrations		

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