

Project Design Phase

Problem – Solution Fit Template

Date	27 JUNE 2025
Team ID	LTVIP2025TMID59892
Project Name	TrafficTelligence:Advanced Traffic Volume Estimation with Machine 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			
Ecosystem of People	1. CUSTOMER SEGMENT(S) CS <ul style="list-style-type: none"> City traffic authorities Urban planners Smart city infrastructure teams Daily urban commuter companies 	6. CUSTOMER LIMITATIONS <small>EG. BUDGET:</small> CL <ul style="list-style-type: none"> Budget constraints for new infrastructure Limited access to real-time data sources for analytics Lack of skilled staff for advanced analytics 	5. AVAILABLE SOLUTIONS <small>PROS &</small> AS <ul style="list-style-type: none"> Loop Defectors: Accurate but expensive, limited coverage Manual Counts: Labor-intensive, not scalable Static Models; Outdated not
	2. PROBLEMS / PAINS <small>ITS FREQUENCY</small> PR <ul style="list-style-type: none"> Inaccurate traffic volume estimates (daily) Poor congestion management (frequent during peak hours) Manual data collection 	7. PROBLEM ROOT / CAUSE RE <ul style="list-style-type: none"> Reliance on outdated methods despite inefficiencies (nt) Reactive decision-making instead of predictive (high intensity in critical scenarios) 	7. BEHAVIOR - ITS INTENSITY BE <ul style="list-style-type: none"> Reliance on outdated methods despite inefficiencies Static decision-making in critical scenarios
Innovation Delivery Model	3. TRIGGERS TO ACT TR <p>Before: Frustrated Stressed, stressed, helpless</p>	10 YOUR SOLUTION SL <p>A machine learning-based system that predicts traffic volume using real-time GPS, weather, and historical data—providing accurate, scalable, and adaptive traffic insights</p>	9. CHANNELS OF BEHAVIOR CH <p>ONLINE Road sensors Field staff reports</p>
	4. EMOTIONS <small>BEFORE / AFTER</small> AF <p>Emotions before / After efficient</p>		8. CHANNELS OF BEHAVIOR <p>OFFLINE Road sensors, field staff-reports</p>

References:

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