

## Project Design Phase

### Problem – Solution Fit Template

Date	15 February 2025
Team ID	LTVIP2025TMID29266
Project Name	Sustainable Smart City Assistant using IBM Granite LLM
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.**

# Problem-Solution fit canvas 2.0



Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> Who is your customer? i.e. working parents of 0-5 y.o. kids	<b>6. CUSTOMER CONSTRAINTS</b> <span>CC</span> 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.	<b>5. AVAILABLE SOLUTIONS</b> <span>AS</span> 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 note-taking.	Explore AS, differentiate
	<input type="checkbox"/> Urban residents of Smart Cities <input type="checkbox"/> Working professionals, senior citizens, students <input type="checkbox"/> Local businesses impacted by civic issues	<input type="checkbox"/> Lack of awareness about complaint channels <input type="checkbox"/> Limited access to smartphones/internet (in some demographics) <input type="checkbox"/> Language barriers <input type="checkbox"/> Low trust in government response	<input type="checkbox"/> Traditional municipal helpline numbers <input type="checkbox"/> Manual complaint registers at local offices <input type="checkbox"/> Twitter handles of municipal corporations <input type="checkbox"/> WhatsApp civic groups <input type="checkbox"/> Cons: No tracking, low response, unclear authority, poor feedback loop	
Focus on J&P, tap into BE, understand RC	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <span>J&amp;P</span> Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.	<b>9. PROBLEM ROOT CAUSE</b> <span>RC</span> 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.	<b>7. BEHAVIOUR</b> <span>BE</span> 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)	Focus on J&P, tap into BE, understand RC
	<input type="checkbox"/> Report public infrastructure issues quickly (e.g., potholes, broken streetlights, garbage overflow) <input type="checkbox"/> Track status of complaints <input type="checkbox"/> Avoid time-consuming visits or phone calls to civic bodies <input type="checkbox"/> Increase transparency and accountability in city services	<input type="checkbox"/> Lack of centralized, efficient, and citizen-friendly issue reporting mechanism <input type="checkbox"/> Unstructured complaint processing by municipal bodies <input type="checkbox"/> Gap between issue reporting and response tracking <input type="checkbox"/> Low civic-tech integration in public governance	<input type="checkbox"/> Capture photos/videos of issues <input type="checkbox"/> Share on social media to get attention <input type="checkbox"/> Call municipal offices or use ward meetings to complain <input type="checkbox"/> Discuss in local Resident Welfare Associations	
Define CS, fit into CL	<b>3. TRIGGERS</b> <span>TR</span> What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.	<b>10. YOUR SOLUTION</b> <span>SL</span> What kind of solution suits Customer scenario the best? Adjust your solution to fit Customer behaviour, use Triggers, Channels & Emotions for marketing and communication.	<b>8.1 ONLINE CHANNELS</b> <span>CH</span> What kind of actions do customers take online? Extract online channels from box #7 Behaviour	Explore AS, differentiate
	<input type="checkbox"/> Witnessing unresolved public issues <input type="checkbox"/> Social media posts about civic negligence <input type="checkbox"/> Delays in traditional complaint systems	<input type="checkbox"/> A mobile + web-based Smart City Issue Reporting app that allows citizens to: <input type="checkbox"/> Instantly report issues with geo-tagging and media uploads <input type="checkbox"/> Track complaint progress <input type="checkbox"/> Get push/email notifications <input type="checkbox"/> View issue history and resolutions <input type="checkbox"/> Enable two-way communication with civic authorities  <small>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.</small>	<input type="checkbox"/> Social media posts/tweets <input type="checkbox"/> Google reviews about city services <input type="checkbox"/> City mobile apps (if any)	
	<b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span> 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.		<b>8.2 OFFLINE CHANNELS</b> <span>CH</span> What kind of actions do customers take offline? Extract offline channels from box #7 Behaviour and use them for customer development.	
	Before: Frustrated, helpless, ignored, anxious After: Empowered, confident, satisfied, hopeful		<input type="checkbox"/> Visiting municipal ward office <input type="checkbox"/> Calling complaint hotlines <input type="checkbox"/> Local newspaper letters	