

PROJECT DESIGN PHASE-I  
PROBLEM – SOLUTION FIT

Date	3 November 2022
Team ID	PNT2022TMID46424
Project Name	Project - Smart Waste Management System For Metropolitan Cities
Maximum Marks	2 Marks

# Problem-Solution Fit

Define CS, fit into CL	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> <div>Private individuals who are waste holders, Property owners and companies that produce wastes</div>	<b>6. CUSTOMER LIMITATIONS</b> <span>CL</span> <small>EG. BUDGET, DEVICES</small> <div>Efficient waste management, provides better control over odor, reduce pollution</div>	<b>5. AVAILABLE SOLUTIONS</b> <span>AS</span> <small>PLUSES &amp; MINUSES</small> <div>Eco-friendly usable bags Digital trash bins Buy and Sell groups</div>	Explore AS, differentiate
	<b>2. PROBLEMS / PAINS</b> <span>PR</span> <small>+ ITS FREQUENCY</small> <div>Separate wastes as biodegradable and Non-Biodegradable. Create a compost site Need an intimation whenever the bin overflows.</div>	<b>9. PROBLEM ROOT / CAUSE</b> <span>RC</span> <div> <ul style="list-style-type: none"> <li>Between 30% and 35% waste occurred from building construction industries etc..</li> <li>Manufacturing and Agriculture.</li> <li>Household trashes.</li> <li>Overflowing of dustbins</li> <li>Chemical emissions due to stagnant wastes</li> </ul> </div>	<b>7. BEHAVIOR</b> <span>BE</span> <small>+ ITS INTENSITY</small> <div>Incase of improper function of smart bin with sensors then the customers might contact the customer care services.</div>	
Identify strong TR & EM	<b>3. TRIGGERS TO ACT</b> <span>TR</span> <div>The pickup of the bin should be on time. If the bin has been filled then it should give alert to the responsible person.</div>	<b>10. YOUR SOLUTION</b> <span>SL</span> <div>In lower traffic and remote locations, one of the best ways to prevent bin overflowing is to install a smart fill-level sensor in each bin and utilize a monitoring platform to plan the collections ahead of time. As a result, the containers get collected in time and collection companies increase their efficiency, ultimately reducing operational costs by up to 50 percent.</div>	<b>8. CHANNELS of BEHAVIOR</b> <span>CH</span> <div> <b>ONLINE</b> <div>By creating a web application through this the people can be able to post their queries, and the organizing person should solve their problems.</div> <b>OFFLINE</b> <div>Waste management methods are different in different environment, while the waste produced by the industries, management, and living areas is their responsibilities and managed by themselves.</div> </div>	Extract online & offline CH of BE
	<b>3. EMOTIONS</b> <span>EM</span> <small>BEFORE / AFTER</small> <div>           Before :Has no idea on managing waste and doesn't have any awareness on proper disposal and waste management.            After: Gets an idea of managing waste to provide a safe and clean environment         </div>			

