

of fuel consumption in modern fleet
vehicles using Machine Learning.

Define CS, fit into CC	<p>1. CUSTOMER SEGMENT(S)</p> <p>A fleet manager</p>	<p>6. CUSTOMER CONSTRAINTS</p> <p>Fuel shortages from inefficient tank replenishment, fraudulent activities in fuel management, Scarce access to data, analytics, and shareability</p>	<p>5. AVAILABLE SOLUTIONS</p> <p>Machine learning (ML) algorithms are used to predict fuel consumption for building heating. A generic ML scheme was applied over multiple climate zones and building model types. Static neural networks and Gaussian Process regression have lower prediction errors.</p>	Explore AS, differentiate
Focus on J&P, tap into BE	<p>2. JOBS-TO-BE-DONE / PROBLEMS</p> <p>Source cheaper fuel and Upgrade to fuel-efficient vehicle models. Right-size the fleet. Schedule vehicle maintenance. Keep vehicles clean. Check tire pressure. Reduce drag Use driver fuel cards Track driver habits. Respect the speed limit limit engine idling Map efficient routes Use fleet management software.</p>	<p>9. PROBLEM ROOT CAUSE</p> <p>Driver Shortages. Improper digitalization of Vehicles. High fuel Costs. Extreme environmental (climatic) changes Rising Popularity of Electric Vehicles. Poor route optimization and poor driver behaviour Factories and plants provide an ideal closed-loop environment for innovative</p>	<p>7. BEHAVIOUR</p> <p>Another way fuel management systems can help you identify good driving habits and improve fuel efficiency is through reduced idling time. Improve fuel efficiency with proactive vehicle maintenance. Fuel management streamlines fuel tax reporting. Support sustainability and find savings through electrification</p>	Focus on J&P, tap into BE
	<p>3. TRIGGERS</p> <p>In the competitive world of business, organizations are always searching for ways to reduce costs in order to remain efficient and maximize profits. With fuel prices rising and demand for vehicles increasing, corporate fleets are one of organization's largest expenses</p> <p>4. EMOTIONS: BEFORE / AFTER</p> <p>Before: When the business involves managing a fleet of vehicles, one expense you will never miss from your income statement is fuel consumption. Hence it always leads in some sort of loss</p> <p>After: Predicting fuel costs will lead to sustainment of non-renewable resources, save as much as we can in fuel costs each year</p>	<p>10. YOUR SOLUTION</p> <p>By Predicting fuel consumption per trip based on dynamic on-road data can help the automotive industry to reduce the cost and time for on-road testing. Data modeling can easily help to diagnose the reason behind fuel consumption with a knowledge of input parameters. To determine the total fuel consumed by vehicle, the cumulative fuel consumption was calculated by adding the instantaneous fuel rate values for every second.</p>	<p>8. CHANNELS of BEHAVIOUR</p> <p>The fuel consumption modeling for modern heavy-duty vehicles using PEMS data under various driving conditions, different routes, and external factors. Engine Load (%), Engine Speed (rpm), and Vehicle Speed (km/h) were used as inputs for the ANN. Based on the hyper-parameter tuning. The minimum generalization gap of training and validation data loss plots indicates a good fit.</p>	