

HOW CAN PETRO AND CONVENIENCE STORE LOCATIONS BE MORE PROFITABLE WITH REAL-TIME VISUAL ANALYSIS?

PROBLEM

One of India's major petroleum production and distribution companies wanted to improve operations across 20,000+ nationwide retail filling stations. With the country's fuel consumption at an all-time high—growing at 6.7% per year—competition for customer loyalty depends on tracking and improving wait time, transaction time, and repeat visitors.

SOLUTION

The company implemented a computer vision solution on their retail outlet's existing camera system running Avathon Industrial AI platform, analyzing more than 40 simultaneous use cases across multiple categories: safety, customer service, look and feel, productivity, audit, security, and operations. Category performance was tracked to enable improvements in customer satisfaction and build repeat business.

OUTCOME

In just a year of use, the company measured significant gains in multiple categories, including tanker truck decantation process (40% improvement and zero incident rate across customer retail outlets), Customer Service SOP (80% improvement), elimination of manual audits (\$250K annual cost reduction); and 3% higher customer traffic per outlet.

Fuel filling stations provide an essential service to drivers throughout India. However, those stations' success depends on a wide range of interactions and factors beyond merely the price of fuel from one station to the next. Motorists expect a short wait time and turnaround time on their fill-up, professional interactions with station staff, and a pleasant experience if they visit the station's restroom.

Managing so many variables is difficult, especially for corporations as vast as Hindustan Petroleum Corporation Limited (HPCL), which boasts more than 20,000 fueling stations across India and ranks among the world's biggest corporations, with annual revenue across all business units exceeding \$50B.

Many of HPCL's stations are owned and managed by third parties and have historically had lower performance for customer satisfaction and repeat business than company-owned locations. Because of this, HPCL would conduct periodic, random audits of those stations—a costly move that delivered only limited success in detecting and solving performance issues.



To move away from the audit process for third-party locations and implement a standardized system for measuring performance across all its stations, HPCL turned to Avathon Industrial AI platform to perform real-time analysis of data gathered from its existing video surveillance cameras (which had previously only served to conduct spot checks).

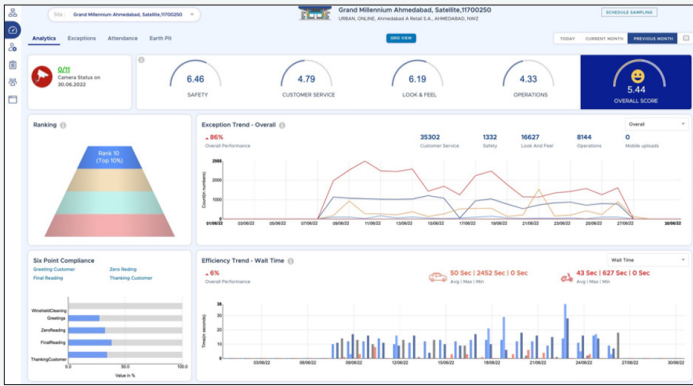
The company identified 44 use cases to implement with Industrial AI platform, all tied to safety, operational excellence, and customer satisfaction.

These use cases included:

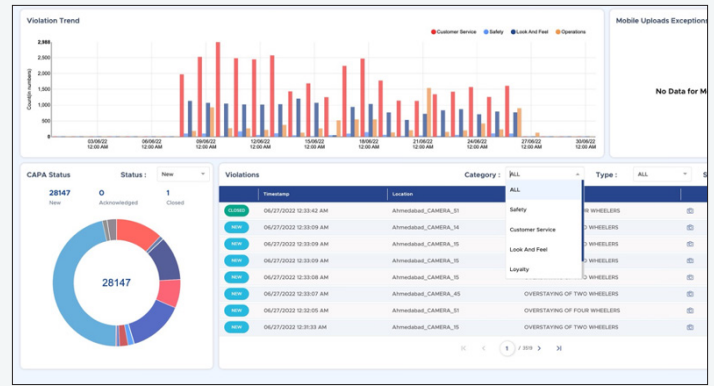
Efficiency: Monitor vehicle filling time and peak time by vehicle type, vehicle queue time, air tower wait time and filling time, and decantation time.

Alarms: Trigger alarms for standard operating procedure violations and safety concerns (smoking, fire, crowding issues, etc.) and sound alarms for camera tampering or covering/malfunctioning cameras.

Customer Loyalty: Capture registration plates of all customer vehicles, gauge general customer demographics such as age and gender, and identify loyal customers by vehicle type.



Dashboards show performance history in areas that contribute to customer satisfaction, leading to repeat business.



Data on customer wait times, queue length, and services performed provide further insights into performance.

HPCL uses Industrial AI platform to track as many activities and interactions as possible, integrating all company-owned stations and conducting live video sample checks of third-party stations. GPU-enabled AI processing units operate 24/7 for the most successful stations. The insights allow company quality control managers to break down station performance across twelve geographic zones and then study individual locations to monitor performance trends.

Factors such as employees wearing proper uniforms and greeting customers correctly, protective barricades being placed correctly on the property, and loitering by non-customers are now recorded and measured against business metrics such as the volume of repeat visits against overall visits.

Data analyzed from the category issue areas (safety, customer service, look and feel, and operations) are combined to determine a customer satisfaction score in each category, contributing to an overall score. HPCL has increased its returning customers by 50% since deploying Industrial AI platform.

ADDITIONAL KPI IMPROVEMENTS INCLUDE:

- 80% improvement in Customer Service SOP
- 3% increase in customer traffic per outlet
- 40% improvement in tanker truck decantation process
- Zero safety incidents during the decantation process across customer retail outlets
- Elimination of manual audits, which previously cost \$250K per year

In just over a year since implementation, HPCL has made the most of its AI investment and positioned itself well against fuel station competitors in a fast-growing economy. Avathon Industrial AI platform has demonstrated measurable benefits across multiple dimensions for HPCL retailers, dealers, franchise owners, sales officers, regional managers, and—most importantly—its loyal customers.

ABOUT AVATHON

Avathon, a leader in Industrial AI, extends the life of critical infrastructure while advancing the journey toward full autonomy. Avathon's Industrial AI platform empowers commercial and government customers with scalable, secure, and value-driven solutions that enhance efficiency and resilience across heavy industry.

To learn more about how Avathon's AI solutions can unlock the power in your data, visit www.avathon.com.