Vision AI Empowers an Automobile Giant Personalize Customer Experience & Enhance Revenue

One of world's largest two-wheeler manufacturers with a network of 4,000 showrooms and service centers catering to a customer base of over 44 million wanted a custom and scalable AI solution that had the power to track and measure customer engagement and experience across their large network of sales and service touchpoints.

https://akaiketech.com/usecase-rtl-anly

Industry Overview
The automobile industry is changing rapidly. Autonomous driving, electric powertrains, digital services, and mobility platforms have become the key pivots to an industry on the verge of disruption. Much like tech businesses who have opted for digitization and increasing automation to become customer-centric, automotive and mobility players are reinventing themselves for the future.

Business Challenge
A smooth in-store experience translates into customer acquisition, retention, loyalty, and brand advocacy. Identifying friction points in the customer's journey, therefore is key to crafting positive purchase and support experiences. The client wanted to profile and segment walk-in prospects, personalize customer experience as well as collect feedback across company-owned showrooms and franchisee outlets with Vision AI, doing away with the manual processes that were slow and error-prone.

Solution
Blending Machine Learning and Deep Learning models, Akaike whipped up a solution that was deployed in three easy steps.

Capture - After scrutinizing the existing video feeds, increasing the CCTV coverage was recommended. Fisheye cameras were installed as required.

Infer - Combining the power of ML and DL, an AI-driven inference solution that captured the entire customer journey including customer walk-ins, behavior, and engagement was developed.

Predict - The data-driven, real-time insights including footfall traffic, demographic profiling, dwell time, emotion detection, and heat maps were transferred to a user-friendly dashboard for the marketing team.

The AI-fueled insights helped the marketing team redefine their marketing strategy by creating targeted campaigns, redesigning the store layout, maximizing displays, and introducing automation wherever necessary. This not only optimized their marketing spend and operational costs but also increased conversion funnels and profit margins.

Akaike's walk-in analytics solutions are cloud or edge computing agnostic offering flexibility in balancing data privacy and costs. The inbuilt libraries, DL models with transfer learning capabilities, and unique designs drawing reliable inferences with minimal training data provide actionable insights enhancing business efficiency.

Technology Overview

The Vision AI based walk-in analytics solution runs on top of robust and comprehensive technology.

Akaike Proprietary Algorithm - To the pre-processed video footage, Akaike's person-tracking and person-identification algorithm was applied. This helped in recognizing multiple customers in a video and interpret their movement as a set of trajectories with high accuracy, including repeat walk-ins in low lighting conditions.

Hybrid Deployment - The solution was delivered in two steps. First, the AI and video processing modules were deployed on the edge using the NVIDIA Jetson AGX Xavier device in real-time. Second, the AI-propelled insights were converted into a dashboard hosted on the scalable Azure cloud platform.

In the next phase, real-time AI-tailored recommendations will be pushed to the salesperson's device to improve conversions.
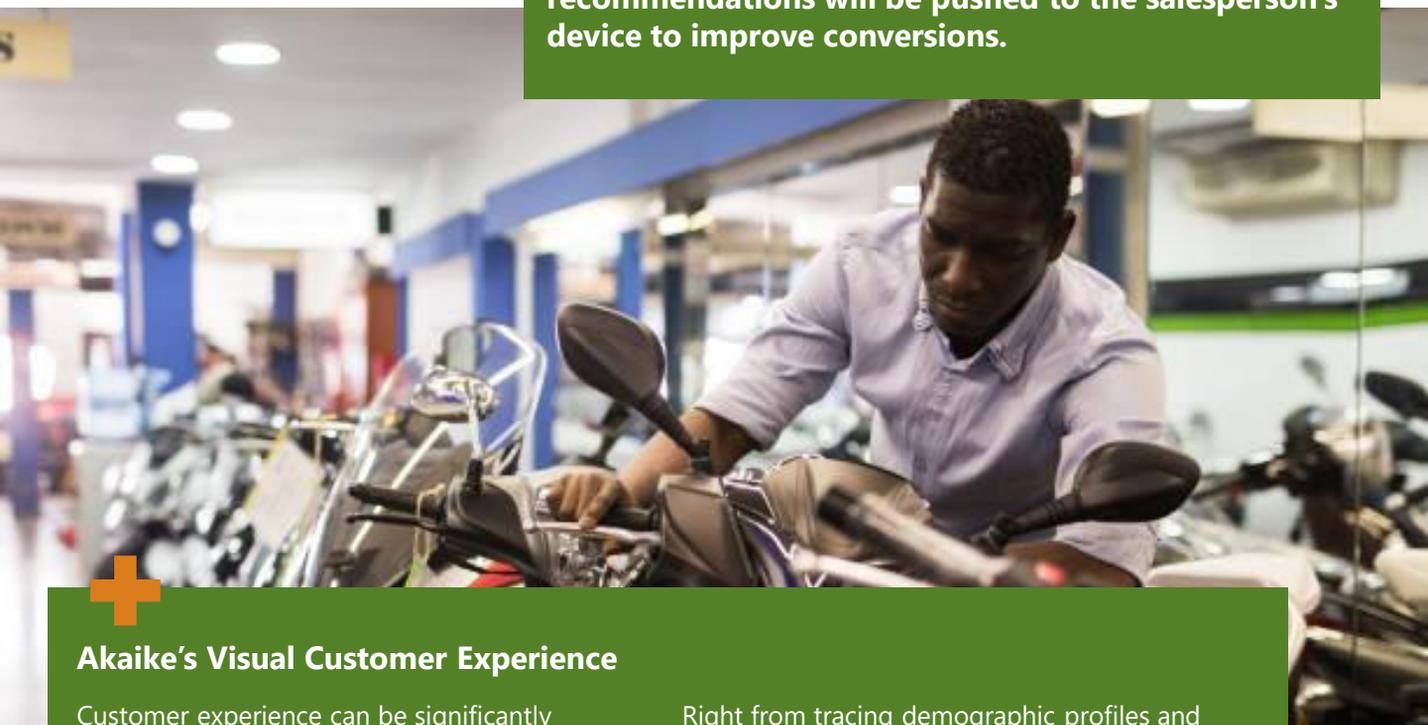
Akaike's Visual Customer Experience

Customer experience can be significantly augmented through AI. Although consumer-facing companies globally are using AI to enhance customer experience, the challenge is to move beyond automation of customer interactions and provide a holistic experience.

By leveraging Vision AI and Deep Learning models, Akaike doesn't merely automate but tailors solutions that track and measure customer journeys in retail spaces of any size.

Right from tracing demographic profiles and behavioral patterns which include emotion detection, footfall traffic, and heat maps to spotting brand anomalies in a physical space, our AI capabilities provide a 360-degree view of how a customer interacts with a brand. Data-driven insights of the brand visuals, empower enterprises to refine their marketing strategies, re-evaluate marketing spend, streamline sales strategies, and control business and operating costs.

About Akaike

At Akaike, we love solving problems that positively impact the quality of human life. The more complex they are, the better.

We apply ML and DL to Computer Vision, NLP, and Reinforcement Learning taking inspiration from the Akaike Information Criterion (AIC) to build and deploy efficient AI models with maximum impact across healthcare, retail, manufacturing, media and other domains.

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