



交通部公路局

高雄市區監理所

Kaohsiung City Motor Vehicles Office, Highway Bureau, MOTC

"We've evolved beyond using JCAATs solely for identifying anomalies in auditing. Now, it incorporates statistical analysis, big data processing, and AI-driven insights, enabling us to derive new perspectives from audit results. Our goal is to harness these technologies to create organizational value and enhance the efficiency of our regulatory and management processes."

Mr. Chen T.S.,
Section Chief of IT,
Motor Vehicles Supervision Office,
Kaohsiung, Taiwan

Evolving from Traditional Audits to AI-Driven Audits: Transitioning from Anomaly Detection to Organizational Value Creation

JCAATs Government Department Case Study

You've probably heard of 'Dine and Dash,' but have you heard of 'Drive and Dash'? This term refers to vehicles that evade taxes. Thanks to JCAATs' AI technology, we can now swiftly locate and seize these vehicles. Just recently, we successfully confiscated a brand-new car worth 1.3 million yuan. Our mission is to leverage these advanced technologies to ensure road safety for all citizens.

Application of JCAATs :

Our internal control contains public services, data processing, transportation industry supervision, and risk assessment. Previously, manual sampling made auditing challenging, but JCAATs now enables 100% audit coverage. Designing computer audit programs with traditional tools like Excel was cumbersome. While Python/R are faster, auditors are often unfamiliar with them. Additionally, relying on IT staff to develop audit programs creates a 'players acting as referees' issue. With the JCAATs, auditors can now independently conduct audits and make judgments, enhancing government efficiency. Currently, 12 out of 18 annual audits in our seven supervisory areas are completed using JCAATs, significantly improving our organizational culture.



The first case: We developed an audit automation system for temporary pass applications. Using the JCAATs system, we oversee and control over six million temporary passes annually, primarily for import and export activities at Kaohsiung Port. This ensures the legality and safety of transporting oversized, overweight items, as well as hazardous or quarantine goods. The audit automation has enhanced the efficiency and accuracy of the audit processes and established a data warehouse to better manage large-scale audit items in the future.



“I would like to recommend a simple and cost-effective tool - JCAATs. It's not only affordable but can also be integrated with RPA (Robotic Process Automation).”

Solution: Integrating Technology into Internal Audit and Control



The second case: We developed a smart 'Eagle Eye' audit operation for vehicle fuel taxes using JCAATs, significantly improving the scope, accuracy, and efficiency of tax audits. Through JCAATs, data on unpaid vehicle taxes is automatically transferred to the court's Enforcement Branch for execution, where payments can be directly deducted from the vehicle owner's bank account, ensuring no omissions and preventing tax evasion. Even if someone attempts to delay payment, the JCAATs system continuously monitors and ensures the taxes are enforced within the deadline. We also used JCAATs to resolve data integration issues between different systems, optimizing banking processes, reducing duplicate payments and errors, and enhancing overall operational efficiency.

This isn't a promotional statement; rather, I find this tool highly practical and exceptionally well-suited for our motor supervision work.

--- Mr. Chen T.S., Section Chair of IT



Results

We recently started using JCAATs AI capabilities for occupational driver risk identification and prediction, avoiding direct human assessment to prevent ethical and legal concerns. Our focus was on analyzing A1 (fatal accidents), A2 (injury accidents), and A3 (non-injury accidents). Traditional manual audits were inefficient, taking five minutes per audit, so we utilized JCAATs' machine learning features to significantly boost processing speed and efficiency. The system achieved 94% accuracy in identifying A1 accidents and 70-80% accuracy for A2 accidents. During this process, we identified certain regulations that are closely linked to accident risks, prompting further analysis and adjustments. A new policy has since been implemented, requiring high-risk drivers to renew their licenses, with the aim of reducing accident risks. These measures are designed to prevent traffic accidents and mitigate public transportation risks.

We recently began using JCAATs for large vehicle risk warnings and ESG carbon inventory, with the goal of conducting risk assessments and providing guidance for public transportation operators in the future, thereby enhancing organizational value.



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