

ABSTRAK

Penelitian ini merancang model kecerdasan buatan berbasis machine learning untuk secara otomatis mendeteksi indikasi penghindaran pajak pada perusahaan terbuka di Indonesia. Penghindaran pajak menjadi isu strategis yang berpengaruh besar terhadap penerimaan negara karena celah hukum kerap dimanfaatkan untuk mengurangi beban pajak. Model deteksi anomali dikembangkan melalui integrasi algoritma machine learning dan diimplementasikan pada prototipe aplikasi web untuk analisis real time. Kinerja sistem diuji dengan reliability, compliance, recovery, dan stress testing, menunjukkan keandalan model dalam mengidentifikasi pola transaksi mencurigakan dalam laporan keuangan perusahaan. Hasil penelitian mengungkap bahwa pendekatan AI ini mampu meningkatkan akurasi pendeteksian, mempercepat proses pengawasan, serta mendukung pengambilan keputusan berbasis data bagi otoritas pajak. Selain berkontribusi pada peningkatan kepatuhan dan optimalisasi penerimaan pajak, temuan ini juga membuka peluang riset lanjutan dalam penerapan teknologi canggih di sektor keuangan dan perpajakan.

Kata kunci: penghindaran pajak, kecerdasan buatan, machine learning, deteksi anomali, perpajakan

ABSTRACT

This study designs an artificial intelligence model based on machine learning to automatically detect indications of tax avoidance in publicly listed companies in Indonesia. Tax avoidance is a strategic issue that significantly impacts government revenue due to legal loopholes often used to reduce tax burdens. An anomaly detection model was developed by integrating machine learning algorithms and implemented in a web-based prototype for real-time analysis. System performance was validated through reliability, compliance, recovery, and stress testing, demonstrating the model's robustness in identifying suspicious transaction patterns in corporate financial reports. Findings reveal that this AI-driven approach significantly enhances detection accuracy, accelerates monitoring processes, and supports data-driven decision-making for tax authorities. Beyond boosting tax compliance and revenue optimization, the study also highlights new research prospects for advanced technology adoption in the finance and taxation sectors.

Keywords: tax avoidance, artificial intelligence, machine learning, anomaly detection, taxation