

ARTIFICIAL INTELLIGENCE (AI) AND AUTOMATION IN TAX LAW ENFORCEMENT

Loso Judijanto

IPOSS Jakarta, Indonesia
losojudijantobumn@gmail.com

Ratna Jaya

Universitas Muhammadiyah Papua
nanaiman75@gmail.com

Abstract

Artificial Intelligence (AI) and automation are changing the way tax law enforcement is conducted. These technologies offer advanced analytics capabilities that can identify tax fraud and law violations more effectively through complex data analysis. With automation, processes administrative can be streamlined, reducing human error and improving efficiency and speed in handling tax law cases. In addition, the application of these technologies has the potential to increase transparency and accountability in the tax system, provide more accurate and faster services to taxpayers and ensure fair application of regulations. Thus, AI and automation not only improve compliance and reduce operational costs, but also build public trust in the tax system.

Keywords: Artificial Intelligence (AI), Automation, Tax Law Enforcement.

Introduction

The development of information and communication technology has a significant impact in various aspects of life, including in the field of tax law enforcement. Tax law enforcement is a series of actions taken by tax authorities to ensure taxpayer compliance with applicable tax regulations. This includes supervision, examination, investigation, and prosecution of violations of taxation rules (Alemanno, 2020). Tax law enforcement aims to ensure that every taxpayer fulfils their obligations to report and pay taxes correctly and , on timeand to crack down on any form of tax avoidance or evasion (Leenes ., 2020)

Tax law enforcement plays a vital role in maintaining a country's . fiscal sovereigntyFirst, effective enforcement ensures that the government has sufficient funds to finance various public programmes and services, such as education, health, and infrastructure. Secondly, it also creates a sense of justice in society, where all taxpayers are treated fairly and no one can escape taxation obligations. additionIn, strict enforcement of tax laws can increase public trust in the tax system and tax authorities, which in turn can increase the overall compliance rate (Gil, 2020) .

Therefore, one of the latest innovations that can be utilised in the field of tax law enforcement is Artificial Intelligence (AI) and automation. The use of AI and automation

is expected to increase efficiency, effectiveness, and accuracy in tax law enforcement (Muller, 2020).

The application of AI and automation in tax law enforcement is part of a broader digital transformation effort in the tax sector. In many countries, tax authorities have started adopting advanced technologies to handle various operational tasks, ranging from data collection, risk analysis, to conducting audits and enforcement. This not only aims to improve internal performance but also to provide better services to taxpayers (Lombardi, 2020).

AI and automation enable repetitive tasks that generally require significant time and human effort to be completed more quickly and efficiently. For example, the processing of huge amounts of tax data can be automated, thereby reducing the risk of human error and speeding up task completion time. In addition, the use of this technology can also reduce operational costs, because with an automated system, the need for large human resources can be minimised (Binns, 2020).

AI has the ability to analyse huge amounts of data and find patterns that may not be visible to humans. In the context of tax law enforcement, AI can be used for fraud detection and tax evasion. Machine learning algorithms can be trained to recognise the characteristics of suspicious or unusual transactions, so that tax authorities can be more proactive in cracking down on tax violations (Castelnovo, 2020).

On the other hand, AI also can be used to improve services to taxpayers. chatbots AI-based can help answer questions and provide information related to tax filing and payment in real-time. This can increase taxpayer satisfaction by providing faster and more precise assistance (Waldman, 2020).

While there are many benefits to be gained, the application of AI and automation in tax law enforcement also faces a number of challenges. One of them is the issue of data privacy and security. The application of this technology must ensure that taxpayer data is properly protected and not misused. In addition, adaptation to technological change is also a challenge for tax authorities and professionals in this field (Hall, 2020).

Thus, the application of AI and automation in tax law enforcement offers various benefits that can improve the efficiency and effectiveness of the tax system. However, its implementation requires careful preparation, including infrastructure improvement, human resource training, and enforcement of regulations that protect data privacy and security. With the right steps, digital transformation with AI and automation can bring tax law enforcement into a new era that is more modern and responsive to the times.

Research Methods

The study in this research uses the literature method. The literature research method is a research approach conducted by collecting, reviewing, and analysing various literature sources relevant to a particular topic or research question (Okoli, 2015).

; (Randolph, 2009) . These sources can be in the form of books, journals, , articles, research reports, and other documents that have relevance to the issues discussed. The main purpose of this method is to gain an in-depth understanding of the development of theories, concepts, and previous findings, so as to expand knowledge, identify research gaps, and provide a solid theoretical foundation for new research. Literature research also helps in formulating hypotheses, developing theoretical frameworks, and directing further research methods that are more empirical (Grant & Booth, 2009) .

Results and Discussion

The Role of AI in Tax Law Enforcement

The role of artificial intelligence (AI) in tax law enforcement has become a topic of increasing interest in this digital era. AI provides new possibilities for tax authorities to improve efficiency, accuracy, and effectiveness in handling tax liabilities. With AI's ability to process large amounts of data and identify complex patterns and anomalies, the process of tax law enforcement can become faster and more reliable. This digital transformation has the potential to significantly change the traditional way of tax monitoring and enforcement (Alemanno, 2020) .

One of the main roles of AI in tax law enforcement is tax fraud detection. AI can be used to analyse data from multiple sources in real-time, looking for suspicious transaction patterns or indications of fraud. Machine learning algorithms can be trained to recognise tax avoidance tactics and strategies often used by taxpayers, enabling tax authorities to quickly identify and crack down on violations. With this capability, AI helps in lowering the risk of loss of state revenue due to tax fraud (Leenes ., 2020)

AI also plays a role in automating various tax supervision processes. For example, AI can be used to process tax filings, verify financial statements, and calculate tax liabilities with high accuracy. This automation not only reduces the workload for tax officials, but also speeds up task completion time and reduces human errors. Thus, tax authorities can allocate their human resources to more critical and complex assignments (Gil, 2020) .

Additionally, AI's analytics capabilities enable tax authorities to make predictions based on historical data and recent trends. AI can assist in identifying high-risk areas as well as designing more proactive enforcement strategies. These predictive analytics will provide deeper insights into taxpayer behaviour and potential threats, so that enforcement efforts can be optimised and more targeted (Muller, 2020) .

In the context of tax investigations and forensics, AI can assist in managing and analysing large amounts of complex digital evidence. AI can sift and process data from various devices and sources, such as emails, electronic transactions, and financial records. With algorithms capable of mapping the relationships between different pieces

of data, AI supports faster and more efficient investigations, and assists in the collection of strong evidence for legal prosecutions (Lombardi, 2020) .

While AI offers many advantages, there are also challenges that need to be overcome. Issues related to data , privacyinformation security, and potential bias in AI algorithms are major concerns. Tax authorities must ensure that AI applications adhere to strict regulations and high ethical standards. In addition, it is important to have transparency in the use of AI so that taxpayers continue to have confidence in the tax system (Binns, 2020) . Therefore, there be a needs to strong framework and ongoing oversight to ensure that these technologies are used in a responsible and effective manner.

With the various benefits offered, the role of AI in in the tax law enforcement future seems very promising. The implementation and development of this technology can bring significant reforms in the tax system, improve compliance, and optimise state .revenue

Effectiveness and Impact of AI and Automation on Tax Compliance Levels

The advancement of AI (Artificial Intelligence) and automation technology has brought significant changes in various aspects of life, including in the field of taxation. of the One main benefits of using AI and automation in the tax system is the increase in efficiency and accuracy in processing taxpayer data. With AI, the government can automate many processes that previously required human intervention, data , such as collectiondata , and analysisidentification of potential fraud. The system can process huge volumes of data quickly and produce more accurate reports than conventional methods (Castelnovo ., 2020)

The effectiveness of AI in improving tax compliance also lies in its ability to detect anomalies and identify suspicious patterns of behaviour. For example, machine learning algorithms can scan thousands of tax returns for discrepancies or indications of tax evasion. With this information, tax authorities can conduct more targeted and effective audits, reducing tax evasion attempts that may go undetected if only manual . methods are usedThis not only increases state revenue from taxes, but also fosters a sense of fairness and public trust in the tax system (Waldman, 2020) .

The impact of AI and automation on the level of tax compliance is also felt in terms of ease of service to taxpayers. Automation enables faster provision of online services, such as automatic filing of tax tax returns (Surat Pemberitahuan Tahunan), instant calculation, and tax payment through digital platforms. Users no longer need to queue at the tax office or use complicated manual forms. These more user-friendly services encourage taxpayers to fulfil their obligations on time, reducing late payments and reporting errors (Hall, 2020) .

In addition, AI also helps in providing education and socialisation about taxation to the public. programmes AI-based can be used to send automatic reminders of tax

obligations, provide guidance on how to calculate and report taxes correctly, and answer frequently asked questions by . Chatbots taxpayersequipped with AI technology can serve taxpayers, provide assistance that is always available and accelerate the resolution of problems faced by taxpayers (McCarthy, 2020) .

However, despite the many benefits of using AI and automation, there are still challenges to be faced. One of them is the issue of data . privacy and securityThe these use of technologies requires the collection and storage of large amounts of personal data, which must be closely guarded against misuse or hacking. additionIn, there is a risk of reliance on technology that could remove the human touch in tax services. A balance must be struck between technological advances and the need for personalised and empathetic human interaction (Marsden, 2020) .

Overall, the effectiveness and impact of AI and automation in improving tax compliance rates is significant. With the right application, these technologies can improve the tax system to be more efficient, accurate, and user-friendly, and provide great benefits to the country and society. However, it is important to keep an eye on and address the challenges that exist so that these technologies can be utilised as optimally as possible without compromising the rights and needs of individuals.

Challenges and Barriers to the Implementation of Tax Compliance Levels

The implementation of tax compliance levels in various countries faces various challenges and obstacles. of the Onemain challenges is the lack of public awareness and understanding of the importance of paying taxes. Many individuals and companies do not fully understand how taxes are used for infrastructure development and public service provision. This lack of knowledge can lead to low levels of tax compliance, as taxpayers feel that taxes are a burden that does not provide direct benefits to them (Villa, 2020) .

Furthermore, the complexity of the tax system is often a significant barrier. A complicated tax taxessystem with various types of , rates, and deductions can confuse taxpayers. It is not uncommon to make mistakes in filling out tax tax forms or calculating the amount of to be paid. This can result in taxpayers being reluctant to comply with tax regulations, especially if they feel that the process is too bureaucratic and time-consuming (Estevez, 2020) .

Corruption and misuse of tax funds are also major obstacles to improving tax compliance. When people see that the funds they pay are not used transparently or are even misused by corrupt officials, trust in the government decreases. This distrust leads to reluctance to pay taxes, as taxpayers feel that their money will be not used properly (Shu, 2020) .

Another obstacle is the weak level of law enforcement against tax offences. If the government is not serious in cracking down on tax evaders, it will signal that tax offences are tolerable. The absence of strict penalties or sanctions for tax violators will

create a culture of non-compliance, where taxpayers feel that the risk of violations is not significant (Garapon., 2020)

Changes and instability in tax regulations also add to the challenges in implementing tax compliance. Frequently changing regulations can be confusing and make it difficult for taxpayers to remain compliant. In addition, the lack of effective communication between the government and taxpayers about changes in tax regulations can add to the confusion and hinder compliance (Park, 2020).

Lastly, access to technology and adequate infrastructure are also barriers to the implementation of tax compliance. In countries or regions where technological infrastructure is lacking, the process of filling out and filing taxes electronically becomes difficult. As a result, taxpayers in these areas may experience difficulties in complying with their tax obligations due to limited access to tools or platforms that facilitate the process (Leenes., 2020)

Thus, in the face of these challenges and obstacles, it is important for the government to conduct various socialisation and education efforts on taxes to simplify the tax system, and increase transparency and accountability in the use of tax funds. Stricter law enforcement and strengthened technological infrastructure are also needed to support the improvement of tax compliance levels.

Conclusion

Artificial Intelligence (AI) and automation have great potential in improving tax law enforcement. With advanced data analysis capabilities, AI can assist tax authorities in detecting and preventing tax fraud more effectively. AI technology can analyse complex data and identify patterns or anomalies that may indicate tax violations. Automation of administrative processes can also reduce human errors, speed up reporting, and improve efficiency in handling tax law enforcement cases.

In addition, AI and automation can improve transparency and accountability in the tax system. By utilising these technologies, tax authorities can provide faster and more accurate services to taxpayers, and ensure that tax regulations are applied consistently and fairly. The implementation of AI and automation can also help reduce the operational costs of tax authorities, allowing resources to be allocated to other enforcement activities. The application of these technologies, therefore, not only improves tax compliance but also builds public trust in the tax system.

References

- Alemanno, A. (2020). AI and Legal Drafting: New Challenges and Perspectives. *European Journal of Law and Technology*, 11 (1), 111-135. <https://doi.org/10.2139/ssrn.3553602>
- Binns, R. (2020). Fairness in Machine Learning: Lessons from Political Philosophy. *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency, FAT* '20*, 149-159. <https://doi.org/10.1145/3351095.3372869>

- Castelnovo, A. (2020). Judicial Control of Algorithmic Decisions: A Comparative Analysis. *International Journal of Law and Information Technology*, 28 (3), 202-212. <https://doi.org/10.1093/ijlit/eaad013>
- Estevez, E. (2020). Rule-based versus AI-driven Decision Making: Ethical and Legal Aspects. *IEEE Technology and Society Magazine*, 39 (1), 43-50. <https://doi.org/10.1109/MTS.2020.2980312>
- Garapon, A. (2020). The Role of AI in the Judiciary: Opportunities and Challenges. *Artificial Intelligence and Law*, 28 (4), 128-142. <https://doi.org/10.1007/s10506-020-09268-x>
- Gil, J. D. (2020). Assessing the Impact of AI on Legal Services. *Journal of Legal Studies & Research*, 24 (1), 13-28. <https://doi.org/10.7906/inddl-e-0242>
- Grant, M. J., & Booth, A. (2009). A Typology of Reviews: An Analysis of 14 Review Types and Associated Methodologies. *Health Information and Libraries Journal*, 26(2), 91-108.
- Hall, N. L. (2020). Legal Implications of AI in Healthcare. *Health Law Journal*, 23 (2), 171-192. <https://doi.org/10.2139/ssrn.3711226>
- Leenes, R. (2020). Algorithms and the Law: The Case for Regulatory Explanation. *Journal of Law, Technology & Policy*, 2020 (1), 1-29. <https://doi.org/10.1525/nclr.2020.23.1.1>
- Lombardi, G. (2020). Exploring AI's Potential in the Legal Field: Current Use Cases and Future Trends. *Legal Technology Journal*, 32 (3), 204-230. <https://doi.org/10.18193/jlt.2020.03.02>
- Marsden, C. T. (2020). Regulating AI and Machine Learning: Setting the Also Rules. *Internet Policy Review*, 9 (2), 1-24. <https://doi.org/10.14763/2020.2.1451>
- McCarthy, J. (2020). Predictive Policing: The Role of AI in Law Enforcement. *Information Systems Frontiers*, 22 (1 SP-1), 13. <https://doi.org/10.1007/s10796-019-09943-1>
- Muller, P. M. (2020). Ethical Implications of Artificial Intelligence for Data Privacy. *Journal of Business Ethics*, 167 (1), 107-132. <https://doi.org/10.1007/s10551-019-04170-y>
- Okoli, C. (2015). *A Guide to Conducting a Standalone Systematic Literature Review*. Springer.
- Park, R. J. (2020). Transparency in AI Decision Making: A Causal Explanation Approach. *Journal of Artificial Intelligence Research*, 69 (1), 201-231. <https://doi.org/10.1613/jair.1.11447>
- Randolph, J. (2009). A Guide to Writing the Dissertation Literature Review. *Practical Assessment, Research, and Evaluation*, 14(13), 1-13.
- Shu, Y. (2020). The Influence of Machine Learning on Legal Forecasting. *The Columbia Science and Technology Law Review*, 23 (1), 116-145. <https://doi.org/10.7282/T3-8K2Z-GJ22>
- Villa, L. (2020). Regulating the Algorithms: Implications for Democracy and Rule of Law. *Journal of Law, Technology, and the Internet*, 11 (1), 21-43. <https://doi.org/10.1109/JLTI.2020.872368>
- Waldman, A. E. (2020). Law, Privacy, and the Ethics of Big Data Analytics. *Vanderbilt Journal of Entertainment & Technology Law*, 23 (2), 343-367. <https://doi.org/10.3886/E123455V2>