(REVIEW ARTICLE)

Taxpayer rights in tax administration procedures considering artificial intelligence

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Abstract

Artificial intelligence makes it possible to review current tax administration procedures to improve efficiency. At the same time, the protection of taxpayer rights cannot be ignored, meaning that special attention must be paid to ensuring that taxpayer rights are upheld when reforming tax administration procedures. The aim of this research is to examine the possible alternatives for introducing artificial intelligence in tax administration procedures from the perspective of taxpayer rights. At the same time, it is important to bear in mind that artificial intelligence cannot eliminate tax evasion or tax fraud, but it can reduce the regulatory and tax authority procedural loopholes that create opportunities for tax evasion or tax fraud. Furthermore, artificial intelligence cannot completely transform all tax administration procedures, as there are elements that require the use of human resources and human control (such as the advance tax ruling). Tax procedures supplemented by artificial intelligence tools can contribute to increasing transparency and trust in the tax system, as well as ensuring legal accountability. Based on the results of the research underlying this study, it is clear that the legislator's first task is to transform tax administration procedures based on artificial intelligence, considering the rights of taxpayers, followed by the involvement of the tax authority in order to develop the IT infrastructure in line with the amended legal environment. This could lead to the creation of a legal framework that maintains public trust and strikes a balance between innovation and the fundamental legal protection of taxpayers.

Keywords: Taxation; Artificial Intelligence; Taxpayer Rights; Tax Procedure; Accountability

1. Introduction

Artificial intelligence is gaining ground in a wide range of sectors, leveraging extensive digital data repositories and sophisticated algorithms to process complex queries, draw conclusions, and simulate human-like interactions. In tax administration, artificial intelligence is gradually automating decisions, analysing data sets, and improving compliance checks. The development of artificial intelligence in taxation began several decades ago by the end of the 1990s, machine vision technology had facilitated automated customs inspections, while the past three decades have seen the widespread adoption of advanced analytics and machine learning techniques due to the proliferation of electronic tax data.

A significant recent development is generative artificial intelligence, which enables the creation of human-like content such as text, images, and videos. The integration of generative artificial intelligence into tax administration coincides with broader digital transformation initiatives and is reshaping compliance dynamics for both taxpayers and authorities. Automated systems, particularly generative artificial intelligence in the field of taxation, are multifaceted and complex. While they can provide real-time advisory support to individual taxpayers to improve compliance and reduce dependence on costly professional services, these same capabilities pose risks if exploited for illicit purposes. AI-driven tools can optimize tax evasion schemes by providing guidance on jurisdictions, business structures, and legal frameworks with minimal detection risk. AI-assisted fraud can further evade detection through strategic document modification based on AI-generated insights.

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As artificial intelligence transforms tax administration, it presents both opportunities and challenges. AI-driven automation, predictive analytics, and natural language processing increase administrative efficiency and revenue collection, but raise concerns about data security, legal accountability, and algorithmic bias. Policies that balance innovation and robust governance mechanisms are essential to harness the benefits of artificial intelligence and mitigate the risks.

In this context, the protection of taxpayers' rights is a key issue. Taxpayers' rights generally refer to legal guarantees that ensure fairness, transparency, and due process in the relationship between taxpayers and the state. It is important that these rights also include the ability of taxpayers to engage in lawful tax planning and to choose their economic circumstances in such a way as to minimize their tax liability. It is well known that taxpayers are not obliged to arrange their affairs in such a way as to maximize their tax burden; but may legitimately choose arrangements that reduce it. The protection of taxpayers' rights therefore requires recognition of both procedural guarantees and substantive entitlements, including the right to organize their economic activities lawfully to reduce their tax liability.

2. Method

The study was prepared using three methods, which are as follows:

- **dogmatic analysis**, which essentially involves examining the legislation in force from a systematic and logical point of view, clarifying the concepts that arise in this context, and developing the related legal arguments;
- **logical methods**, which aim to reveal the connections and contradictions between legal norms through the application of formal logic;
- **transdisciplinary research**, which involves the examination of complex issues (e.g., sustainability) with the joint involvement of several disciplines.

Using these three methods, the study examines the topic of artificial intelligence and tax administration and draws conclusions about how the conditions for enforcing taxpayer rights are changing because of the tax authorities applying the possibilities offered by artificial intelligence in tax administration procedures.

3. Artificial intelligence and tax administration

3.1. Opportunities and challenges for tax administration from the perspective of artificial intelligence

Tax authorities around the world

- function-based,
- taxpayer segment-based, or
- tax type-based

models, within which artificial intelligence is increasingly being used to improve efficiency, detect fraud, and automate service delivery. Tools such as chatbots, automated risk profiles, and predictive analytics are now an integral part of workflow optimization and the detection of illegal behaviour. Despite these advances, artificial intelligence is not yet widely used in administrative decision-making within tax authorities [3]. However, its wider application is not a question of "if" but "when." Artificial intelligence offers unparalleled speed and efficiency in processing information and allocating resources, making its integration into decision-making processes logical and inevitable.

However, this transition poses significant structural and legal challenges. In many cases, the current tax administration framework is not yet prepared for the use of artificial intelligence in discretionary decision-making roles within tax authorities. The shift from human-led interpretation to algorithmic decision-making would fundamentally change the basis for tax authority discretion, requiring not only technical modernization but also legal and institutional transformation.

A critical distinction must be made

- between artificial intelligence used as a tool to support tax authority decisions and
- artificial intelligence that independently determines taxpayer obligations and tax authority decisions.

This is because if the tax authority relies on automated systems in its decision-making, concerns may arise (e.g., the potential erosion of legal expertise). This could also lead to a situation where, without adequate safeguards, the tax authority risks transferring interpretative powers from legally trained professionals to technology developers who may not have the necessary legal acumen. (In this case, special procedures such as advance tax ruling should also be considered, where the use of artificial intelligence can have a significant positive impact, as forecasting the tax liabilities of future economic transactions is likely to lead to much more accurate estimates [4].)

In addition, transparency is a challenge in decision-making related to artificial intelligence, i.e., whether taxpayers can be sure that they can exercise their taxpayer rights in a way that allows them to understand the use of artificial intelligence that independently determines tax authority decisions, and, as a result, exercise their right of appeal against the final decision of the tax authority involving artificial intelligence, as they recognize the deadlines and formal requirements for filing an appeal.

However, it is necessary to draw attention to the general risk that the reliance of artificial intelligence on complex, protected algorithms may obscure the reasons behind tax assessments, making it difficult for individuals to challenge erroneous or biased decisions. In view of this risk, it is justified to introduce tax procedural safeguards such as

- ensuring compliance with legal and ethical standards by the tax authorities,
- ensuring transparency so that taxpayers can understand and challenge tax authority decisions, and
- ensuring fairness in tax administration procedures regarding supervisory bodies.

Artificial intelligence has the potential to revolutionize tax administration by increasing efficiency, reducing tax evasion, and improving compliance, but this process must be carefully managed to ensure compliance with legal, ethical, and governance standards. Ensuring that AI-driven decision-making is consistent with the principles of fairness, transparency, and accountability requires a robust regulatory framework and ongoing oversight mechanisms. At the same time, the use of artificial intelligence not only optimizes existing systems, but also reshapes the nature of public authority, blurring lines of responsibility, undermining accountability, and posing serious risks to procedural fairness and due process. However, most jurisdictions do not have specific legal safeguards in place to protect taxpayers' rights. Even the European Union's regulation on artificial intelligence does not directly address the role of artificial intelligence in tax administration, creating a regulatory vacuum at the intersection of automated tax authority decision-making and individual rights.

3.2. Artificial intelligence-based tax administration and taxpayer rights

3.2.1. Taxpayers' right to information

The tax authority provides taxpayers with the information necessary to comply with the law, familiarizes them with the rules for filing tax returns and paying taxes, and advises them on how to exercise their rights. Based on this principle, the tax authority is responsible for promoting law-abiding behaviour among taxpayers and therefore has a fundamental obligation to provide the necessary information. The law also stipulates that the tax authority has a duty to warn taxpayers so that they can exercise their rights under the law [5].

Regarding taxpayers' right to information, it is necessary to note that the effective integration of artificial intelligence into tax administration requires a comprehensive and balanced approach. This balance requires robust data management, transparent legal frameworks, and cooperation between multiple stakeholders to ensure that AI-driven systems are consistent with social values and ethical principles. A fundamental concern is the extent to which automated decision-making processes remain transparent and verifiable and are consistent with taxpayers' right to information.

3.2.2. Principle of transparency and comprehensibility

The language used in tax administration procedures when communicating with taxpayers must be simple and comprehensible [6], and tax administration procedures and tax authority decisions must be transparent [7]. The emphasis on the principle of comprehensibility serves the purpose of ensuring that the tax authority uses simple, comprehensible language when communicating with taxpayers in tax administration procedures. This fundamental principle plays a key role in ensuring that taxpayers receive information that helps them to fulfill their tax obligations. As a result of the principle of comprehensibility, it is not sufficient for the tax authority to inform taxpayers of their legal obligations; it must do so in a comprehensible manner. Furthermore, transparency in tax proceedings is the cornerstone of legal certainty, ensuring that processes are understandable and traceable for taxpayers. Transparency is based on three pillars: predictability of rules, digital verifiability, and informational self-determination.

The tax authority is required to provide clear information about rights and obligations, and taxpayers can track the status of their cases and tax data in real time via electronic interfaces. The aim of transparency is to strengthen trust, prevent abuse, and reduce the administrative burden through automated data reporting.

The principles of transparency and comprehensibility are closely linked to public trust, which is essential for effective tax administration, which cannot be understood without transparency. Public trust significantly increases voluntary compliance, especially in the context of emerging technologies, and trust in tax authorities significantly influences taxpayer behavior, especially in the case of newly emerging technologies. In contrast, the use of artificial intelligence raises significant concerns about transparency, especially when tax authority decisions affect taxpayers' rights and obligations. Transparency ensures that taxpayers can understand and evaluate the reasons behind AI-based tax assessments. This right is an integral part of procedural fairness, enabling taxpayers to challenge AI-based assessments. Without transparency, the opacity of artificial intelligence that independently determines taxpayer obligations and tax authority decisions can impede fair proceedings, especially when predictive analytics influence tax liabilities and penalties. Indeed, the legality of using predictive analytics to determine tax liabilities has already been questioned in several jurisdictions, highlighting the need for clearer legal and ethical boundaries.

3.2.3. Right to fair proceedings

The tax authority is required to act fairly, which means that

- on the one hand, the tax authority must generally enforce the right to fair procedure in relation to individual tax administration procedures,
- on the other hand, taxpayers are given the opportunity to invoke the right to fair procedure in individual cases to obtain relief from the strictness of the legal provisions [8].

After reviewing the concept of the right to fair procedure in addition to transparency, fairness is also key in AI-driven tax administration, where tax law principles require the tax authority to ensure that automated decisions do not result in arbitrary or biased outcomes. However, the use of artificial intelligence systems trained on unbalanced or unrepresentative data sets that disregard the principles of fairness and transparency in tax administration procedures may unintentionally reproduce or even reinforce existing social prejudices. If an artificial intelligence system is trained on data that over-represents certain demographic characteristics, it can create discriminatory patterns. Addressing these biases is essential to maintaining the integrity of artificial intelligence-based tax assessments.

3.2.4. Taxpayers' right to legal remedy

When challenging tax authority decisions, taxpayers can invoke supranational law, such as European Union law, as well as domestic constitutional law. National law, and tax law in particular, must comply with or be consistent with these higher-ranking legal frameworks. This principle ensures that automated tax authority decision-making driven by artificial intelligence remains subject not only to procedural safeguards but also to constitutional and supranational oversight, thereby strengthening the rule of law. These safeguards become particularly critical when algorithmic opacity limits the taxpayer's ability to understand or challenge automated decisions. Ensuring transparency in decision-making is not only an ethical imperative, but also necessary to maintain the rule of law in tax administration. [9]

3.3. Prospects and recommendations

The future of AI-based tax administration depends on striking a balance between innovation and the fundamental rights of taxpayers, particularly regarding transparency and procedural fairness. It is critical to ensure that AI-powered tax authority decision-making systems provide clear and understandable reasoning for each tax authority decision. Transparency is not only a technical requirement, but also a legal and ethical one, as taxpayers must be able to understand and challenge AI-driven tax decisions. Without adequate transparency, individuals may be unable to challenge tax authority decisions, which ultimately undermines due process and erodes confidence in the tax system.

In addition, most tax authorities still do not have specific policies or frameworks governing the planning, development, and use of artificial intelligence. Instead, they rely on general corporate policies that do not adequately address the specific risks posed by automated decision-making in taxation. This governance gap is further exacerbated by the insufficient integration of ethical and legal principles into AI development processes. Key safeguards such as fairness, bias reduction, reliability, privacy protection, transparency, contestability, and accountability are often applied inconsistently or not at all. In addition, the demand for rapid deployment of artificial intelligence systems often precedes the development of appropriate regulatory and supervisory frameworks. In view of this, it is important to draw attention to the need to introduce, as soon as possible, procedures and systems, including those involving artificial

intelligence, that not only explain how AI-driven tax authority decisions are made, but also allow for strict taxpayer and tax authority oversight of these decisions in terms of fairness, accuracy, and legal compliance.

Furthermore, to promote fairness and accountability, it is essential to establish an independent, AI-powered oversight mechanism to review automated tax assessments, tax assessments, and tax authority decisions. Such a system should function as an external control tool that cross-checks the logic, data input, and legal interpretations of AI-driven tax decisions. Unlike traditional validation processes, this oversight mechanism should assess whether the generated determinations are consistent with broader legal, ethical, and procedural safeguards. An AI-driven tax administration system should include the following:

- Provide transparent explanations that offer detailed, understandable insight into how tax assessments were made, with reference to statutory regulations, court precedents, and administrative practice.
- Identify and correct algorithmic biases by evaluating past data patterns to recognize and mitigate biases that lead to discriminatory determinations.
- Ensure procedural fairness and due process by facilitating taxpayer involvement, making automated decisions challengeable, and documenting the legal reasoning required for appeals. [10]

Ultimately, the effective integration of artificial intelligence into tax administration requires robust, transparency-focused mechanisms that protect taxpayers' rights while maintaining the efficiency of the system. Independent, AI-driven review systems would address critical risks related to algorithmic opacity and automation bias, reinforcing taxpayer fairness and accountability. Given the growing reliance on automated systems and the general opacity of decisions, the lack of oversight raises significant concerns. Addressing these challenges requires proactive regulatory intervention at the national and potentially international level to ensure that AI-based tax systems operate within a transparent and fair legal framework.

4. Conclusion

The study concludes that while artificial intelligence offers unparalleled efficiency in tax administration, its implementation requires careful management to ensure compliance with legal and ethical standards (p. 3). A robust regulatory framework and ongoing oversight mechanisms are essential to ensure AI-driven decisions align with principles of fairness, transparency, and accountability (p. 3). Most jurisdictions currently lack specific safeguards, highlighting a regulatory vacuum that necessitates proactive intervention at national and international levels (pp. 3-4). Addressing these challenges requires establishing transparent explanation mechanisms, identifying and correcting algorithmic biases, and ensuring procedural fairness to maintain the rule of law (p. 5). This research benefits society by advocating for a balanced integration of AI that protects fundamental taxpayer rights, thereby fostering trust in the tax system and ensuring a fair operational environment for the future.

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