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Review scientific article
UDC 336.225:004.89
doi: https://doi.org/10.56461/rep280226.04.V

THE USE OF AND DEVELOPMENT OF ARTIFICIAL INTELLIGENCE BY TAX ADMINISTRATIONS**

Abstract

As companies develop AI tools to increase sales, reduce costs, and replace human labor, tax administrations, despite being late adopters, have begun to do the same in order to enhance tax compliance. This paper examines the use of and development of AI by tax administrations in EU and OECD countries to enhance tax compliance and increase revenue and analyzes both the readiness of and the rationale for the Serbian tax authority to further develop and implement AI technologies in its operations. Given that the Serbian Tax Administration struggles to keep up the pace with the number of employees needed for the amount of work that has to be performed, the starting hypothesis is that AI tools should be used and developed by the Serbian Tax Administration as the outcome could be more tax revenue effectively collected. The study will mostly employ comparative legal method and content analysis, especially for the latest OECD documents related to AI and taxation.

Keywords: tax law, artificial intelligence, tax administration.

I Introduction

Artificial intelligence (AI) was mentioned for the first time in 1940 by mathematicians trying to explain how a machine is capable of dealing with problems that individuals can solve with human intelligence.[1] We are now undergoing the fourth industrial revolution, where AI has the ability to replace humans in various sectors, which affects human lives.[2] However, AI can increase productivity,

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** This paper is the result of scientific research conducted at the Institute of Comparative Law, with financial support from the Ministry of Science, Technological Development and Innovation (reference number: 451-03-33/2026-03/200049, 5 February 2026).

[1] Ö. Biyan, G. Yilmaz, "Artificial Intelligence: If It's Taxed, But How?", in: *Critical Debates in Public Finance* (eds. A. Gercek, M. Taş), Peter Lang, Berlin–Bern 2019, 184.

[2] V. Chand, S. Kostić, A. Reis, Taxing Artificial Intelligence and Robots: Critical Assessment of Potential Policy Solutions and Recommendation for Alternative Approaches – Sovereign

mitigate mistakes, and be more consistent by working 24/7.[3] AI can also address worker-related shortages and reduce labor and production costs.[4] Having this in mind, it is very understandable why the need for human replacement is at its highest.[5]

As companies are using AI to boost sales, cut costs, and rely less on human work,[6] tax administrations around the world are starting to implement AI in their processes as well.[7] Tax administrations want to achieve better productivity by streamlining internal operations and enhancing the effectiveness of policy formulation, decision-making, service delivery, improving responsiveness to public policies and services through more advanced design and delivery methods, and strengthening accountability by expanding oversight capabilities and transparency, including through real-time monitoring mechanisms.[8] OECD further states that while low-skilled jobs will be affected first, complex work can also be performed by AI.[9] Accordingly, it can be expected that many administrative jobs in tax administrations will be replaced by AI, while at the same time AI can also assist in complex tasks such as tax fraud prevention.

The goal of this article is to analyze the development and current use of AI by tax administrations in EU and OECD Member States, as well as a few other countries whose tax administrations started using AI among the first. The research is primarily based on the latest OECD document that was issued in late 2025, which illustrates the real impact of AI and its use by tax administrations. The second goal is to estimate the current state of readiness to integrate AI by the Serbian Tax Administration, as well as to explain the reasons for the need for further AI development by Tax Administration.

Measure: Education Taxes/Global Measure: Global Education Tax or Planetary Tax, *World Tax Journal* 12(2020)4, 715.

[3] *Ibid*., 713.

[4] *Ibid*.

[5] R. Abbott, B. Bogenschneider, Should Robots Pay Taxes? Tax Policy in the Age of Automation, *Harvard Law & Policy Review* 12(2018)1, 145–146.

[6] D. Richins *et. al*., AI Tax: The Hidden Cost of AI Data Center Applications, *ACM Transactions on Computer Systems*, 37(2021)1–4, 2.

[7] OECD, *Governing with Artificial Intelligence: The State of Play and Way Forward in Core Government Functions*, OECD Publishing, Paris 2025, 22–23.

[8] *Ibid*.

[9] *Ibid*., 41–42.

The article is divided into two parts. In the first part, by using comparative legal method and content analysis method, the current use of AI by tax administrations worldwide will be analyzed. The second part demonstrates why it is the right moment for Serbia to start heavily developing AI tools to protect public revenues.

II The AI Development by Tax Administrations – A Comparative Analysis

AI adoption by governments lags behind the adoption and implementation in the private sector.[10] Governments face challenges with skills shortages, outdated legal systems and data availability, as well as higher requirements regarding privacy and transparency.[11] A precondition for implementing AI is to abandon paper and to digitalize workflow. The majority of tax administrations around the world have already introduced more reliable reporting with the digitalization of VAT invoices, improved detection of possible non-compliance through better risk assessment modelling with large amounts of digital data and advanced analytical techniques, and improvements in services for taxpayers, especially for e-filing and targeted help such as online live chats.[12]

One of the first tax administrations to introduce AI was the US Internal Revenue Service (IRS), where data collection was enhanced through advanced information systems, alongside the application of data-mining methods for various objectives, including assessing taxpayer compliance risk, identifying tax evasion/fraud[13], detecting electronic fraud, tax-credit fraud, and money

[10] *Ibid*., 3.

[11] *Ibid*.

[12] OECD, *Tax Administration 3.0: The Digital Transformation of Tax Administration*, OECD Publishing, Paris 2020, 10. http://www.oecd.org/tax/forum-on-tax-administration/publications-and-products/tax-administration-3-0-the-digital-transformation-of-tax-administration.htm, last visited: 29. 12. 2025.

[13] Tax evasion refers to any unlawful act by a taxpayer that does not necessarily result in criminal liability and may also include minor or administrative offences, whereas tax fraud involves a deliberate and intentional violation of the law aimed at avoiding the payment of taxes and typically gives rise to criminal charges. See: R. de la Feria, Tax Fraud and Selective Law Enforcement. *Journal of Law and Society* 47(2020)2, 245–246. There is also the concept of "tax avoidance", which does not give rise to criminal offences or misdemeanors, but may only result in an adjustment of the tax base by the tax administration in administrative proceedings. To read more differences between tax evasion/fraud

laundering activities.[14] In order to achieve these goals, the IRS implemented a range of analytical tools, such as logistic regression, decision trees, neural networks, clustering methods, and visualization techniques, such as computer vision.[15] Regarding the American continent, Peru was the next country that introduced an AI tool based on neural networks to detect tax evasion, through the application of diffuse and association rules in the preprocessing of variables and classification and regression trees in 2004.[16] The same year, Brazil introduced risk analysis and applied artificial intelligence to detect various types of fraud through the application of AI, and since 2016, AI has been used to analyze big data in order to control VAT chains.[17] In addition to VAT evasion prevention, in 2009, the Chilean tax administration introduced clustering algorithms to characterize taxpayers obliged to declare VAT, and for the first time, by using the information from VAT and income tax reports, fake invoices were detected.[18] In Brazil, a notable ongoing project that could help judges in the administrative judicial proceedings to render verdicts faster is underway. Namely, Brazil had approximately USD 140 billion in tax assessments pending resolution before administrative tax appeal bodies, and on average, it took nearly six years to reach a decision at the appeal stage.[19] Through the AI Litigation project, Brazilian authorities introduced supervised machine-learning techniques to allocate comparable cases to the same officials, thereby accelerating case handling and decision-making.[20] Initial pilot tests, based on a dataset of 2,000 manually classified

and avoidance, see: J. Kostić, M. Vasović, Pravilo o transfernim cenama kao antiabuzivna mera u zakonodavstvu EU i praksi suda pravde EU, *Strani pravni život* 68(2024)3, 389; M. Vasović, J. Kostić, Evazija PDV kao razlog proširenja obima primene PDV direktive, *Evropsko zakonodavstvo* 23(2024)87–88, 190; C. Bergedahl, Anti-Abuse Measures in Tax Treaties Following the OECD Multilateral Instrument – Part 1, *Bulletin for International Taxation* 72(2018)1, 11; M. Greggi, Avoidance and Abus De Droit: The European Approach in Tax Law, *eJournal of Tax Research* 6(2008)1, 24.

[14] A. Faúndez-Ugalde, R. Mellado-Silva, E. Aldunate-Lizana, Use of artificial intelligence by tax administrations: An analysis regarding taxpayers' rights in Latin American countries, *Computer Law & Security Review* 38(2020), 105441, 3.

[15] *Ibid*.

[16] *Ibid*.

[17] *Ibid*.

[18] *Ibid*., 3–4.

[19] OECD (2025), 170.

[20] *Ibid*., 170.

cases, demonstrated that supervised models achieved sensitivity and specificity rates exceeding 80%.[21]

In the EU, all Member States' tax authorities have implemented machine learning in their processes.[22] One of the first Member States whose tax authorities started developing AI to collect more tax revenue was Austria. Since 2014, one of the most advanced AI tools has been used by the Austrian Tax Administration to tackle tax fraud/evasion, improve tax collection, and for auditing.[23] After the establishment of the Predictive Analytics Competence Centre, a specialized unit within the Ministry of Finance, the Austrian Tax Administration started developing advanced machine learning tools.[24] In 2023, one of the authority's risk-assessment systems processed approximately 6.5 million cases covering personal income tax, corporate tax, VAT, and customs operations.[25] The analysis uncovered cases of misreporting in employee tax assessments and detected fraudulent behavior, leading to roughly EUR 185 million in additional tax revenue.[26] In parallel, close to 27.5 million cases were reviewed for compliance purposes, resulting in 375,000 cases identified as requiring further investigation due to inconsistent or unrealistic risk indicators.[27] Austrian tax administration states that "advanced techniques, including decision trees, regression models and text mining, support both retrospective and real-time audits while ongoing projects seek to expand analytical capabilities to include, for instance, generative models".[28] Similarly, the French tax authority uses one of the most advanced AI models to fight the evasion of the property tax.[29] Based on aerial photographs, the AI algorithm extracts the outlines of buildings and swimming pools from the aerial images, and AI then compares them with the property tax reports, and if an anomaly is detected, tax inspectors get notified, resulting in further inspection.[30] Greece has developed

[21] *Ibid*., 170.

[22] See the full report per Member State: https://taxadmin.ai/eu-overview-ai-taxadmin-reports/, last visited: 17. 12. 2025.

[23] OECD (2025), 171.

[24] *Ibid*.

[25] *Ibid.*

[26] *Ibid.*

[27] *Ibid.*

[28] *Ibid*.

[29] *Ibid*., 170.

[30] *Ibid*.

the same system, but only for the swimming pools that were not declared in the property tax report.[31]

Regarding Serbia's neighboring countries, the Croatian Tax Administration uses AI only as a predictive tool to detect and prevent carousel VAT fraud.[32] In 2019 Bulgaria developed a predictive model to automatically identify missing traders and carousel fraud schemes, and the platform reduced the average time required to identify missing traders by 15% while substantially increasing the number of detected cases.[33] Romania developed a risk detection platform that can identify inconsistencies in domestic VAT records and link them with relevant financial information. In 2023, the Romanian Minister of Digitalization stated that the implementation of this risk-detection system has led to a 1% increase in VAT revenue.[34] Additionally, the Romanian Tax Administration implemented an AI-driven chatbot designed to respond to frequently asked taxpayer questions.[35] The Hungarian Tax Administration is a regional frontrunner, as they started with AI implementation back in 2016 by applying machine-learning techniques in its operations, and in 2022, the state established a dedicated Artificial Intelligence Working Group tasked with advancing the development and integration of AI solutions within tax administration processes.[36] Hungarian Tax Administration developed a risk detection system that can detect risk signals and indicators within tax returns and supporting documentation submitted, which is applicable to VAT, corporate income tax, personal income tax, as well as the monitoring of goods movements through transport control systems.[37] Furthermore, Hungary developed an external risk management (risk scoring) that provides the identification and assessment of potential non-compliance or fraudulent behavior, leading to the segmentation of taxpayers.[38] By enabling segmentation, tax inspectors can identify taxpayers for audit in a faster and more targeted manner. It should be mentioned that the risk detection system was used by the

[31] *Ibid*.

[32] https://taxadmin.ai/country/croatia-ai-country-report/, last visited: 23. 12. 2025.

[33] https://taxadmin.ai/country/bulgaria-ai-country-report/, last visited: 23. 12. 2025.

[34] https://taxadmin.ai/country/romania-ai-country-report/, last visited: 23. 12. 2025

[35] *Ibid*.

[36] https://taxadmin.ai/country/hungary-ai-country-report/, last visited: 23. 12. 2025.

[37] *Ibid*.

[38] *Ibid*.

majority of EU members which resulted in the recovery of EUR 12.7 billion in 2023.[39]

Regarding OECD countries, 29 of the 38 OECD members reported that their tax administrations use AI for the automated provision of personalized information to stakeholders, virtual assistants, risk assessment processes, detection of tax evasion and fraud, assistance to tax officials in making administrative decisions, making recommendations for actions or final administrative decisions, dispute resolution, to ensure the integrity of tax administration systems/processes, and other use cases.[40] Figure 1 illustrates which use cases are the most popular.



Figure 1: The use cases
Source: OECD (2025), 172.

Several tax authorities shared their results of applying AI in their operations. For example, the Inland Revenue Authority of Singapore introduced in 2021 a chatbot to handle more efficiently common queries on corporate tax, goods and services tax, individual income tax, stamp duty, property tax, withholding tax and employer tax matters.[41] In 2023, the chatbot was upgraded through the incorporation of a Large Language Model (LLM), substantially strengthening its capacity to interpret the purpose of taxpayers' requests. In addition to providing responses through the chatbot, taxpayers are able to review outstanding tax liabilities, access and manage payment arrangements, monitor payment status, reinstate or terminate instalment plans, and complete tax payments via self-service terminals and mobile platforms.[42] Compared to con-

[39] https://taxadmin.ai/country/european-union-ai-report/, last visited: 23. 12. 2025

[40] Here, it can be seen which OECD member country implemented AI and for what purposes: OECD Data Explorer, https://tinyurl.com/2fb876ec, last visited: 17. 12. 2025.

[41] OECD (2025), 172.

[42] *Ibid.*

ventional digital service channels, each chatbot-assisted transaction reduces processing time by approximately 10 minutes. During the 2024 financial year, the chatbot processed around 70,000 transactional requests, translating into an estimated time saving of 11,666 hours for taxpayers.[43]

Another example is the Australian Taxation Office, which uses AI to improve both the precision and efficiency of tax return filing. This includes real-time data analysis, pre-filled forms and anomaly detection systems designed to identify irregularities, all of which support taxpayers in fulfilling their obligations while reducing the likelihood of mistakes.[44] A key component of this approach is the pre-filling service, which automatically inserts information into individual tax returns using data obtained from employers, financial institutions, government bodies, and other third-party sources, but before submitting their return, taxpayers must verify and approve the automatically populated data.[45] This process lowers compliance costs and enhances accuracy by limiting errors associated with manual data entry.[46] Across the 2023 and 2024 financial year, over 636,000 prompts were issued to individual taxpayers, contributing to the protection of approximately AUD 78.9 million in revenue.[47]

The following section outlines the reasons why Serbia should develop AI models that can help in collecting more tax revenue and estimates whether Serbia is ready for projects of that kind.

III The Serbian Tax Administration and the Use of AI

In this section, the first goal is to uncover the readiness of the Serbian Tax Administration to implement AI solutions in order to boost compliance and collect more tax revenue. After that, the reasons for further developing advanced AI tools in domestic tax administration will be examined.

1. Readiness of Serbian Tax Administration to Implement AI Solutions

First of all, digitalization of the Serbian Tax Administration initiated in 2019, when Serbia signed a loan agreement with the World Bank of over EUR 25 million for

[43] *Ibid.*

[44] *Ibid.*, 172–173.

[45] *Ibid.*

[46] *Ibid.*

[47] *Ibid.*

the Tax administration modernization project (TAMP). One of the objectives of TAMP was modernization of the information and communication technology system and records management.[48] Two years later, the Tax Administration enacted the Transformation program for the period 2021–2025[49], focusing primarily on e-invoicing and the system for electronic invoices (SEF), as well as on e-fiscalization.[50] The Transformation program included one activity connected to reaching the objective that is relevant for further AI development in the Serbian Tax Administration, and that is "the introduction of advanced data analysis methods and identification and assessment of strategic risk clusters (at a minimum by sector), including assessment of potential tax risk with taxpayer segmentation".[51] Improving data analysis and clustering all the data is a precondition for AI implementation and process automation.[52] Segmentation of taxpayers is also an AI tool that is quite common in marketing where "a large number of customer profiles can be divided into a few clusters or segments based on a similarity metric that accounts for demographic properties, behavior, and shopping habits".[53] The segmentation process allows later implementation of advanced AI tools. This shows that domestic Tax Administration has set a decent precondition for AI development and integration. In addition, in the Strategy for the Development of Artificial Intelligence in the Republic of Serbia for the period 2025–2030, it is stated that Serbia owns a supercomputer that can handle all the data necessary to ease the processes of public administration offices, among others, and that it has established a data center with all the necessary hardware equipment, which makes Serbia leader in this technology race in the Balkan region.[54]

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[48] Ministry of Finance of The Republic of Serbia – Tax Administration, Tax Administration Modernization Project – TAMP, https://purs.gov.rs/en/Links/projekts/tamp.html, last visited: 30. 11. 2025.

[49] Ministry of Finance of the Republic of Serbia – Tax Administration, *Tax Administration Transformation Programme 2021 – 2025*, Belgrade 2021, https://www.purs.gov.rs/upload/media/2025/2/4/664488/TaxAdministrationTransformationProgramme20212025.pdf, last visited: 19. 12. 2025.

[50] *Ibid*., 14.

[51] *Ibid*., 33.

[52] *Ibid*., 14.

[53] I. Katsov, *Introduction to algorithmic marketing – Artificial Intelligence for marketing operations*, Grid Dynamics, 2018, 49. https://storage.googleapis.com/algorithmic-marketing-book/algorithmic-marketing-ai-for-marketing-operations-r1.8ga.pdf, last visited: 20. 12. 2025.

[54] Strategy for the Development of Artificial Intelligence in the Republic of Serbia for the period 2025–2030, https://www.srbija.gov.rs/tekst/437277, last visited: 22. 12. 2025.

In late 2025, the Serbian government signed a new loan agreement with the World Bank valued at slightly over 27 million euros for further digitalization and improvement of domestic Tax Administration.[55] Having in mind that a precondition for AI integration is now met, since the dataset is improved and that segmentation of taxpayers exists, it is possible that most of the loan received will be used to fund AI solutions that can help gain more tax revenue and boost compliance. The project is supposed to last until 2028, which is enough to develop advanced AI solutions and test them in real-life scenarios. The new Transformation program of Tax administration for the period beyond 2025 is still not publicly available, and it remains to be seen to what extent the AI development and integration in Tax Administration will be taken into consideration.

2. Reasons for a Widespread Development and Integration of AI in the Serbian Tax Administration

There are several reasons why Serbia should start further developing advanced AI tools to boost compliance and collect more tax revenue. First, as it is being said, Serbia made a great effort to digitalize its processes and cluster all the data, as well as to equip itself with the latest hardware equipment. This is a precondition for developing advanced AI tools. Serbia also started with some AI projects related to tax administration, such as a virtual assistant in the form of a chatbot[56], but further developments are needed. This shows not only that implementing AI is possible due to digitalization, but also that there exists the willingness to develop modern solutions. According to the OECD, AI chatbots are now widely used to deliver services and communicate with citizens by answering simple questions and giving information, which lowers the need for government staff in customer service.[57] In addition, it is worth mentioning again that Serbia signed a loan agreement with the World Bank that will enable further AI development for tax administration.

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[55] Draft Law on the Ratification of the Loan Agreement (Additional Financing for the Tax Administration Modernization Project) between the Republic of Serbia and the International Bank for Reconstruction and Development, 5 September 2025, http://www.parlament.gov.rs/upload/archive/files/cir/pdf/predlozi_zakona/14_saziv/011-1662_25_.pdf, last visited: 21. 10. 2025.

[56] Official website of the Serbian Tax Administration, https://www.purs.gov.rs/odnosi-s-javnoscu/novosti/4608135/virtuelni-poreznik-poreske-uprave-za-laksi-pristup-informacijama.html, last visited: 29. 12. 2025.

[57] OECD (2025), 41.

Second, the 2024[58] and 2025[59] EU progress report on Serbia, stated that Serbia does not have enough staff in its Tax Administration. However, in 2025, several hundred positions were opened in the Tax Administration[60], but whether this is enough, remains to be seen. The Tax Administration releases its annual report for each calendar year. The report from 2025 states that the number of employees in the Tax Administration is only 4038, which is very low.[61] The 2026 report shows that there are 3979 employees, representing a decrease of approximately 60 employees.[62] In addition, according to the latest report, 1205 employees are over 45 years old, and 1678 are over 54 years old, while only 709 employees are between 34 and 44 years old, and 387 are under 34, [63] which means that the majority will retire in the near future, and that a huge gap will remain. Another question is how older employees, who make up the majority in Tax Administration, adapt to the latest digitalization process of public administration. If we compare these numbers to Austria, which has nearly the same population as Serbia, we can see that there are over 6000 employees in its tax administration,[64] but the country still needs AI tools to boost compliance and fight evasion, as presented in the previous chapter. Serbia's Tax Administration, with low number of employees, the majority of whom are older, should start developing AI technologies that can replace missing human work and help recover and protect tax revenue.

Third, tax revenue is essential to the state's existence, and in order to fund public services and development, more revenue is needed. In 2024, nearly 30 billion euros in tax revenue were collected, which is almost 5 billion more

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[58] European Commission, *Commission Staff Working Document: Serbia 2024 Report*, SWD(2024) 695 final, Brussels, 2024, 13.

[59] European Commission, *Commission Staff Working Document: Serbia 2025 Report*, SWD(2025) 755 final, Brussels, 2025, 14.

[60] Newspaper Infostud, https://poslovi.infostud.com/vesti/Poreska-uprava-zaposljava-1000-ljudi-Prva-sansa-za-pocetnike-profesionalni-izazov-za-iskusne-strucnjake/57202, last visited: 29. 12. 2025.

[61] Republika Srbija, Ministarstvo finansija – Poreska uprava, *Izveštaj o radu 2024,* 2025, 13. https://www.purs.gov.rs/o-nama/Izvestaj.html, last visited: 25. 12. 2025.

[62] Republika Srbija, Ministarstvo finansija – Poreska uprava, *Izveštaj o radu 2025,* 2026, 12. https://www.purs.gov.rs/o-nama/Izvestaj.html, last visited: 23. 9. 2026.

[63] *Ibid*.

[64] Official website of the Ministry of finance in Austria, https://www.bmf.gv.at/en/the-ministry/internal-organisation/Tax-Authority-Austria.html, last visited: 29. 12. 2025.

compared to the previous year.[65] Most of it came from the value-added tax (VAT), which makes up around 24.2% of all tax revenues in Serbia.[66] This shows positive results. However, based on filed criminal charges in 2024, over 145 million euros of tax were avoided, and over 43% of it was VAT.[67] In addition, this is nearly 2% more in avoided VAT compared to 2023.[68] Regarding all taxes, the evasion was lower in 2023 than in 2024 by 20 million euros.[69] By reading these data, two conclusions can be drawn. First, the Tax Police in collaboration with the Economic Crime Unit and the Public Prosecutor's Office is more efficient in fighting tax evasion/fraud, and second, tax crimes have increased. Whichever is the case, more tax revenue ends up unpaid each year due to tax evasion/fraud. However, the data are based solely on the 1097 filed criminal charges for tax matters [70], rather than the actual situation, which cannot be objectively measured. AI technologies could help authorities to fight tax evasion/fraud more efficiently, as is the case in the EU Member States, especially with its risk-based system that helped them recover EUR 12.7 billion in tax revenues in a single year.[71]

Fourth, Serbia is an EU candidate state and is expected that to follow the latest EU developments. In 2019, the EU developed the Transaction Network Analysis (TNA) tool that can help prevent VAT evasion and fraud.[72] Specifically, TNA enables Member States to quickly share and jointly analyze VAT information, allowing suspicious networks to be identified at an earlier stage.[73] This is a risk-based automated tool that can be a powerful tool in recouping evaded VAT. If Serbia becomes an EU Member State, it will be expected to use TNA, as VAT plays an important role in the EU financing. This means that some sort of technology and platform for such data sharing needs to be developed by Serbia in the first place.

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[65] Republika Srbija Ministarstvo finansija, *Bilten javnih finansija* 9(2025)253, 39.

[66] Republika Srbija Ministarstvo finansija, *Bilten javnih finansija* 12(2024)244, 42.

[67] Republika Srbija, Ministarstvo finansija – Poreska uprava (2025), 29.

[68] *Ibid*.

[69] *Ibid*.

[70] *Ibid*.

[71] https://taxadmin.ai/country/european-union-ai-report/, last visited: 23. 12. 2025

[72] European Commission, *Press Release: VAT Fraud: New tool to help EU countries crack down on criminals and recoup billions*, 2019, https://ec.europa.eu/commission/presscorner/detail/en/ip_19_2468, last visited: 25. 12. 2025.

[73] *Ibid*.

Lastly, the Serbian Administrative Court as the court of the final instance in tax matters, does not have specialized judges, and there are over 160,000 cases pending to be solved, and over 10% of it are tax cases.[74] This means that one judge should be able to handle all kinds of administrative cases including tax cases. Since judicial specialization has not been implemented and the number of unresolved cases remains very high, Serbia could consider developing a system similar to the one introduced in Brazil.[75] In that system, cases would first be analyzed by AI and then allocated to judges who have handled a higher number of similar cases. This form of case segmentation could enable faster decision-making and, as demonstrated in the Brazilian pilot project, can significantly reduce the backlog of pending cases.[76]

IV Conclusion

AI is able to replace humans, and it is happening at the moment. However, it can assist humans with more complex work, which is particularly needed in tax administrations. European states, as well as many other OECD members and other countries have started developing AI tools that can help boost compliance, prevent tax evasion/fraud, and help tax authorities recover evaded tax. As presented in this article, AI solutions are used by tax administrations in countries worldwide, and some of them can already be integrated in Serbia, as the necessary preconditions are already met. Furthermore, there are several reasons why Serbia should start rapidly working on the development and integration of AI tools. First, a substantial loan from the World Bank for the further modernization of the Tax Administration has been granted. Second, the Serbian Tax Administration is understaffed and many employees will retire soon. Third, tax evasion keeps increasing. Fourth, as an EU candidate country, Serbia is expected to align with recent EU developments, including the use of TNA, which presupposes the existence of adequate IT infrastructure and AI capabilities. Last, tax cases could be resolved faster before the Administrative Court of Serbia with the use of AI.

In light of these considerations, Serbia has the capabilities to integrate AI in its administrative processes, but further developments in that field are required. It is recommended that the Serbian Tax Administration develops and integrates

[74] Informacija od javnog značaja, Upravni sud, broj: Su II-17a 43/25, od 7.05.2025.

[75] OECD (2025), 170.

[76] *Ibid*.

AI solutions that are already in use within the EU, or at least in neighboring EU countries with a similar socio-economic profile. Additionally, the Ministry of Finance, together with the Tax Administration, should consider organizing meetings with the representatives of academia and the industry, to come up with joint AI solutions that can help boost tax compliance and protect public revenues.

Miloš Vasović*

Upotreba i razvoj veštačke inteligencije od strane poreskih administracija

Sažetak

Kako kompanije razvijaju alate na bazi veštačke inteligencije radi povećanja prodaje, smanjenja troškova i zamene ljudskog rada, poreske administracije, koje kasne za pomenutim trendom, počele su da čine isto u cilju unapređenja poreskog morala. Ovaj rad razmatra upotrebu veštačke inteligencije od strane poreskih administracija u državama članicama EU i OECD-a radi unapređenja poreskog morala i povećanja javnih prihoda, i takođe analizira spremnost Poreske uprave Republike Srbije da razvije i primeni tehnologije na bazi veštačke inteligencije u svom radu. Imajući u vidu da se domaća Poreska uprava suočava sa teškoćama u praćenju obima poslova u odnosu na raspoloživi broj zaposlenih, polazna hipoteza rada jeste da bi upotreba i razvoj veštačke inteligencije u domaćoj Poreskoj administraciji mogli dovesti do efikasnijeg prikupljanja većih poreskih prihoda. Autor će se u radu pretežno koristiti komparativnom metodom, kao i metodom analize sadržaja, naročito u pogledu najnovijih dokumenata OECD-a koji se odnose na veštačku inteligenciju i oporezivanje.

Ključne reči: oporezivanje, veštačka inteligencija, poreska uprava.

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Received: 13 March 2026

Revised: 23 September 2026

Accepted: 28 September 2026