INTERNATIONAL JOURNAL FOR LEGAL RESEARCH AND ANALYSIS

Open Access, Refereed Journal Multi Disciplinary
Peer Reviewed

www.ijlra.com

 ISSN: 2582-6433

DISCLAIMER

 ISSN: 2582-6433

EDITORIAL TEAM

EDITORS

Dr. Samrat Datta

Dr. Samrat Datta Seedling School of Law and Governance, Jaipur National University, Jaipur. Dr. Samrat Datta is currently associated with Seedling School of Law and Governance, Jaipur National University, Jaipur. Dr. Datta has completed his graduation i.e., B.A.LL.B. from Law College Dehradun, Hemvati Nandan Bahuguna Garhwal University, Srinagar, Uttarakhand. He is an alumnus of KIIT University, Bhubaneswar where he pursued his post-graduation (LL.M.) in Criminal Law and subsequently completed his Ph.D. in Police Law and Information Technology from the Pacific Academy of Higher Education and Research University, Udaipur in 2020. His area of interest and research is Criminal and Police Law. Dr. Datta has a teaching experience of 7 years in various law schools across North India and has held administrative positions like Academic Coordinator, Centre Superintendent for Examinations, Deputy Controller of Examinations, Member of the Proctorial Board

Dr. Namita Jain

Head & Associate Professor

School of Law, JECRC University, Jaipur Ph.D. (Commercial Law) LL.M., UGC -NET Post Graduation Diploma in Taxation law and Practice, Bachelor of Commerce.

Teaching Experience: 12 years, AWARDS AND RECOGNITION of Dr. Namita Jain are - ICF Global Excellence Award 2020 in the category of educationalist by I Can Foundation, India.India Women Empowerment Award in the category of "Emerging Excellence in Academics by Prime Time & Utkrisht Bharat Foundation, New Delhi.(2020). Conferred in FL Book of Top 21 Record Holders in the category of education by Fashion Lifestyle Magazine, New Delhi. (2020).Certificate of Appreciation for organizing and managing the Professional Development Training Program on IPR in Collaboration with Trade Innovations Services, Jaipur on March 14th, 2019

 ISSN: 2582-6433

Mrs.S.Kalpana

Assistant professor of Law

Mrs.S.Kalpana, presently Assistant professor of Law, VelTech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology, Avadi.Formerly Assistant professor of Law,Vels University in the year 2019 to 2020, Worked as Guest Faculty, Chennai Dr.Ambedkar Law College, Pudupakkam. Published one book. Published 8Articles in various reputed Law Journals. Conducted 1Moot court competition and participated in nearly 80 National and International seminars and webinars conducted on various subjects of Law. Did ML in Criminal Law and Criminal Justice Administration.10 paper presentations in various National and International seminars. Attended more than 10 FDP programs. Ph.D. in Law pursuing.

Avinash Kumar

Avinash Kumar has completed his Ph.D. in International Investment Law from the Dept. of Law & Governance, Central University of South Bihar. His research work is on "International Investment Agreement and State's right to regulate Foreign Investment." He qualified UGC-NET and has been selected for the prestigious ICSSR Doctoral Fellowship.He is an alumnus of the Faculty of Law, University of Delhi. Formerly he has been elected as Students Union President of Law Centre-1, University of Delhi.Moreover, he completed his LL.M. from the University of Delhi (2014-16), dissertation on "Cross-border Merger & Acquisition"; LL.B. from the University of Delhi (2011-14), and B.A. (Hons.) from Maharaja Agrasen College, University of Delhi. He has also obtained P.G. Diploma in IPR from the Indian Society of International Law, New Delhi.He has qualified UGC – NET examination and has been awarded ICSSR – Doctoral Fellowship. He has published six-plus articles and presented 9 plus papers in national and international seminars/conferences. He participated in several workshops on research methodology and teaching and learning.

 ISSN: 2582-6433

ABOUT US

INTERNATIONAL JOURNAL FOR LEGAL RESEARCH & ANLAYSIS ISSN

2582-6433 is an Online Journal is Monthly, Peer Review, Academic Journal, Published online, that seeks to provide an interactive platform for the publication of Short Articles, Long Articles, Book Review, Case Comments, Research Papers, Essay in the field of Law & Multidisciplinary issue. Our aim is to upgrade the level of interaction and discourse about contemporary issues of law. We are eager to become a highly cited academic publication, through quality contributions from students, academics, professionals from the industry, the bar and the bench. INTERNATIONAL JOURNAL FOR LEGAL RESEARCH & ANALYSIS ISSN 2582-6433 welcomes contributions from all legal branches, as long as the work is original, unpublished and is in consonance with the submission guidelines.

 ISSN: 2582-6433

AI IN TAXATION: REDEFINING ADMINISTRATION AND COMPLIANCE

AUTHORED BY - NIYATI SRIVASTAVA

ABSTRACT

The integration of artificial intelligence (AI) and automation into tax administration is transforming tax systems and compliance by enhancing efficiency, reducing manual labor, and improving the accuracy of tax-related processes. Key technologies such as Big Data, AI, Process Automation, Digital Access to Knowledge, and Open Networks are driving these changes, leading to better fraud detection, precise tax assessments, and streamlined administrative procedures. Case studies from Spain and Australia illustrate the benefits of AI-driven initiatives, including increased taxpayer compliance and reduced fraud. Despite these advancements, challenges such as managing potential biases in AI models, balancing transparency with system manipulation risks, and ensuring the effectiveness of AI interventions remain. The tax profession must also adapt to new roles requiring advanced analytical skills and AI management expertise. This paper emphasizes the importance of leveraging AI technologies while considering their ethical, legal, and social implications to build a robust, equitable, and future-ready tax system.

Keywords: Artificial Intelligence (AI), Tax Administration, Automation, Big Data, Process Automation, Digital Access, Open Networks, Fraud Detection, Tax Compliance, Tax Systems, Technological Advancements, Tax Profession Adaptation, Ethical Implications

INTRODUCTION

Automation and artificial intelligence are revolutionizing tax administration by offering better compliance and streamlined procedures. Paper-based processes will be replaced by advanced technology, such as computerized tax return administration and virtual assistants, which will decrease the need for human involvement. Increased computing power, a wealth of data, and the speed at which algorithms are developed are the main drivers of this change. The European Commission as a crucial 21st-century technology that has the potential to completely transform a variety of sectors, including tax administration, acknowledges AI. However, the use of AI also presents new difficulties that need to be thoroughly examined from a variety of angles, including legal, ethical, sociological, economic, and scientific.

 ISSN: 2582-6433

By boosting compliance, preventing tax fraud, and improving service delivery, artificial intelligence (AI) presents revolutionary possibilities for tax administration. With access to a wealth of data, tax authorities may use AI to save indirect costs and improve reporting. "As the OECD reported in 2019, the use of artificial intelligence (AI) in tax systems is expanding globally, with over 40 tax authorities either utilizing or proposing to use AI."[1] Uses include chatbots for taxpayer inquiries and big data analytics for fraud detection. With AI-driven initiatives, nations like Spain have reaped considerable benefits including less email queries and more voluntary compliance.

At this critical juncture in technological history, it is imperative that we conduct a thorough analysis of artificial intelligence's effects on tax systems. This entails discussing the consequences for taxpayer rights and the changing dynamic between tax authorities and taxpayers in addition to investigating the possible advantages and efficiency. By doing this, we can fully utilize AI to develop a tax administration system that is more effective, transparent, and equitable.

TRANSFORMATIVE TECHNOLOGIES IN MODERN TAXATION

Global tax systems have undergone substantial changes because of recent technological advancements. The way tax administrations function, communicate with taxpayers, and enforce compliance is changing significantly because of these developments. Here, we list and examine the five major technologies—Big Data, Process Automation, Artificial Intelligence (AI), Digital Access to Knowledge and Information, and Open Networks and the Platform Economy—that will shape tax administration and compliance in the future.

- Big Data: Big Data is the ability to acquire and use large amounts of data more quickly and effectively. Big Data in the context of tax systems enables tax administrations to process and examine vast volumes of financial data from several sources. Better fraud detection, more precise evaluations, and improved predictive analytics are all made possible by this capacity. Tax authorities can improve overall tax enforcement and compliance by using Big Data to discover patterns and anomalies that may point to non-compliance or fraudulent activity.
- Process Automation: Process automation integrates sophisticated data-transfer methods employing extensible mark-up language (XML) and application programming interfaces

[1] Cristina Garcia-Herrera Blanco, The use of Artificial Intelligence by tax administrations, a matter of principles, CIAT (INTER AMERICAN CENTER OF TAX ADMINISTRATIONS), (June 19, 2024, 7:23 PM), https://www.ciat.org/the-use-of-artificial-intelligence-by-tax-administrations-a-matter-of-principles/?lang=en

 ISSN: 2582-6433

(APIs) with task automation, which is accomplished through robotic process automation (RPA) technology. These technologies enable smooth data transfer between heterogeneous systems and automate manual procedures that are repetitive and large volume. Process automation improves efficiency, lowers administrative burdens, and streamlines processes for tax administrations. By automating repetitive compliance checks, data entry, and document processing, human resources can be allocated to more sophisticated and valuable tasks.

- Artificial intelligence (AI): AI includes systems that carry out operations that have historically required human judgment. Rules-based programming and machine learning are the two main categories of AI in the tax area.

  - Rules-based programming: In order to achieve certain results, such differentiating between an employee and a self-employed contractor, this method codifies intricate rule sets or decision trees.

- -Machine Learning: In order to forecast outcomes, such as figuring out if expenses are deductible or predicting decisions made by tax courts, AI models are trained on past data. Knowledge management and tax research could undergo a revolution thanks to generative AI, a branch of machine learning that can generate realistic information in response to commands.

Tax practice is undergoing a transformation because to generative AI tools like TaxGPT and Blue J Legal, which produce comprehensive legal documents, notes, and other pertinent writings. Although generative AI has the potential to be revolutionary, issues including data bias, hallucinations, and privacy problems, remain. Techniques like retrieval-augmented generation (RAG) and the usage of private IT environments to safeguard sensitive data can help reduce these hazards.

- Digital Access to knowledge and Information: Digital tax advice and information have made knowledge more accessible to all. Professionals and taxpayers alike can now obtain a multitude of online tax reference materials, frequently at no cost. Understanding and adhering to tax laws has become simpler for both individuals and corporations because to enhanced search capabilities and the availability of extensive web databases. This improved accessibility encourages voluntary compliance and helps taxpayers who are better informed.
- Network Openness and Platform Economy: The platform economy and the emergence of open networks have significantly changed the nature of international trade. New business

 ISSN: 2582-6433

models are made possible by digital platforms, which also represent an increasing portion of economic activity. Tax authorities need to adjust to new kinds of transactions and revenue sources as these platforms grow. The platform economy offers new opportunities as well as difficulties for tax compliance, necessitating creative methods of oversight and enforcement.

One of the most notable recent technology advances is generative AI and the profound effects it will have on tax systems. Research and knowledge management for tax professionals are being revolutionized by tools like ChatGPT and dedicated tax AI platforms. Large language models (LLMs) are used by these technologies to create new content, such as audio and video files and legal documents. There are obstacles with generative AI. Crucial concerns include eliminating potential biases, protecting data privacy, and guaranteeing the dependability and quality of AI-generated information. But innovations like RAG methods and the creation of legal companies' unique tools show that these risks can be successfully reduced.

IMPACT ON THE TAX SYSTEM AND TAX PROFESSIONS

The tax system stands to gain a great deal from the automation of operations, which will increase efficiency and need less manual labor. AI and other technology can speed revenue agency verification procedures, improve data management, and improve the administration of tax laws. Additionally, automation may enhance taxpayer experiences by lessening the administrative load associated with compliance. For example, taxpayers can find the process easier with systems that automatically include reporting slips into tax returns, and they can stay better informed about their responsibilities and benefits with more easily accessible digital materials.

Technological developments may assist governments in accomplishing important tax system goals. By boosting taxpayers' faith in the system, they can improve voluntary compliance by lowering inadvertent mistakes and chances for tax evasion and avoidance. The OECD's TA 3.0 vision encourages early payment of taxes, such as through split payments for VAT that occur in real time, which could lower tax losses and give governments major cash flow benefits. The long-term benefit of lower debt servicing expenses would arise from this.

Thanks to technology, policy measures could be created and carried out at a never-before-seen pace. While sensible policy changes still involve consultation and thought, technology can streamline these procedures and improve the effectiveness of impact evaluations. Advanced data

 ISSN: 2582-6433

analysis can more precisely evaluate competing measurements and model the effects of policy changes.

The demand for tax preparation services is expected to decrease as technology lessens the requirement for tax returns created by taxpayers. Taxpayers will still want to confirm that their taxes have been paid, but automation will make information gathering, data management, and account reconciliation less labor-intensive. Almost all facets of tax work, including practice administration, knowledge management and research, advise giving, dispute resolution, and litigation, can benefit from technological advancements.

These technological improvements will bring about big changes for the tax profession. There are worries that as traditional services become more automated or commoditized, technology may lessen the need for tax specialists. But there's also a chance the business will grow as a result of Big Data and AI enabling more in-depth and precise evaluations and analyses. The increasing availability of information on tax matters may lead to a rise in the need for expert advice, which has been stifled by a shortage of resources at reasonable prices and a poor comprehension of tax laws.

When more people begin utilizing these tools independently, technology has the ability to upend the current tax system and displace traditional tax counsellors. These changes are likely to put core customs like hourly billing in jeopardy. Technology will also affect tax professionals by altering the skills needed and the manner in which they acquire knowledge and grow in their field. The incorporation of artificial intelligence and automation into tax systems presents revolutionary possibilities for the fields of tax administration and accounting. Although these technologies offer increased productivity and enhanced compliance, they also present substantial potential and difficulties for tax professionals, necessitating adaptation and the acquisition of new competencies in order to prosper in this dynamic environment.

OPPORTUNITIES AND OBSTACLES

Since tax agencies can potentially achieve large increases in efficiency, cost savings, and improved compliance, they are investigating the implementation of AI systems more and more. The path to completely integrated AI in tax administration is not without its challenges, though.

 ISSN: 2582-6433

OPPORTUNITIES

The main advantage for tax authorities is the possible profit from the application of AI. By automating difficult operations, lowering the need for human interaction, and raising the accuracy of tax assessments, these technologies offer to increase efficiency. AI algorithms, for instance, can detect fraudulent activity, anticipate the possibility of insolvency, and expedite the filing of tax returns. Agencies frequently develop benefit cases to estimate prospective profits or savings in order to support the investment in AI. They can create models that forecast returns on investment by using past data to estimate recoveries and hit rates. The estimated gains are significant in certain cases; one agency stated that the benefits of its costly insolvency risk model are expected to outweigh the implementation costs tenfold. Additionally, explainable AI systems have the benefit of increased accountability and openness. Businesses that explain to their clients the reasoning behind AI choices claim increased consumer buy-in and improved reputations. When administrative decisions need to be defended in tribunals or taxpayers need to be given an explanation, this transparency is especially helpful. Gaining the public's trust and enhancing credibility are two benefits of being able to justify AI-driven judgments.

OBSTACLES

Notwithstanding these advantages, there remain major barriers to the efficient integration of AI with tax administration systems. The unknown benefits of novel and unproven AI therapies provide a significant hurdle. It can be expensive and time-consuming to develop a working AI model; significant investments in software and IT infrastructure are frequently needed. Without strong predictive models, agencies find it difficult to justify these investments since, while the prospective advantages are enticing, they are not always assured. The trade-off between transparency and the possibility of system manipulation is another barrier. While some organizations believe it is beneficial to provide important stakeholders access to the reasoning and weights of their AI models, others are concerned about possible abuse. For example, “auditors with a thorough understanding of risk models' intricate workings may take advantage of this information to manipulate the system.”[2] “Perverse incentives could result from this, such as auditors allowing fraudulent activity to grow before catching it to receive larger compensation.”[3] Moreover, there is a worry that auditors could form biased opinions based on the model's justifications, which could result in unfair enforcement measures and discriminatory practices.

[2]Artificial Intelligence in taxation. Available at: https://www.centreforpublicimpact.org/assets/documents/ai-case-study-taxation.pdf (Accessed: 19 June 2024).

[3] Alessia Fidelangeli, Artificial Intelligence and Tax Law: Perspectives and Challenges, Issue 4, Dec 2021

 ISSN: 2582-6433

Another reason for the reluctance to divulge model details is the concern that doing so will lessen their efficacy. If AI model details, such risk weights, were made available to the general public, people may change how they behave to avoid being detected, which would decrease the models' usefulness. This draws attention to a crucial conflict in the application of AI: the requirement for secrecy to preserve system integrity while also fostering trust calls for transparency.

A wide range of potential, including increased efficiency and cost savings as well as improved compliance and transparency, are presented by the integration of AI in tax administration. The road is not without its challenges, though. In addition to managing any biases and discrimination within their systems, tax agencies also need to manage the unknowns around the benefits of artificial intelligence. Strategic planning and thoughtful analysis will be necessary as these technologies develop in order to optimize their potential and minimize related hazards.

AI IMPLEMENTATIONS IN TAX ADMINISTRATION: CASE STUDIES

The effective application of AI in tax administration is highlighted in a number of case studies and examples, illustrating the revolutionary potential of technology in improving tax compliance and efficiency.

Global Transfer Pricing in International Businesses

Information technology's role in helping multinational corporations manage international transfer pricing was examined by Hemling et al. in 2022. Transfer pricing is a complicated field full of compliance issues. “It entails determining prices for transactions between linked firms in several tax countries.”[4] Large volumes of transaction data have been analysed using AI and cutting-edge IT systems to make sure those prices are competitive and compliant with global laws. This technology-driven strategy has increased overall compliance, decreased conflicts, and improved transfer pricing accuracy.

Automated Information and Tax Collection Systems

Djafri et al. (2023) highlighted the importance of automated information and tax collecting systems in increasing the automation of compliance. These systems use artificial intelligence (AI) to expedite tax data collecting and processing, hence lowering the amount of human labour needed from both tax authorities and taxpayers. These systems provide correct and timely tax payments

[4] Andrew Ifesinachi Daraojimba, The Role of Artificial Intelligence in Enhancing Tax Compliance and Financial Regulation, Vol 6, Issue 2, P. No. 241-251, (2024)

 ISSN: 2582-6433

while reducing fraud and errors through the automation of reporting and collection operations. It has been demonstrated that putting such systems in place increases compliance rates and boosts the effectiveness of tax administration.

The Effect of E-Filing Systems

Oktaviani et al. (2019) provided evidence of the beneficial correlation between tax compliance and the adoption of e-Filing systems. The filing procedure has been streamlined and made more accessible by e-filing systems, which let taxpayers file their forms online. AI is frequently used in these systems to verify data, spot anomalies, and give consumers immediate feedback. Consequently, there is an increased likelihood of timely and accurate return filing by taxpayers, leading to higher compliance rates. The effectiveness of electronic platforms in modernizing tax administration and improving compliance is demonstrated by the success of e-Filing systems.

The AI Initiatives of the Spanish Tax Agency

AI has been successfully used by the Spanish Tax Agency (Agencia Tributaria) to improve tax compliance and fight fraud. The government created a virtual assistant in partnership with IBM Watson to respond to taxpayer inquiries on VAT information. By handling more inquiries and cutting down on the amount of emails received by 80%, this AI-powered assistant enhanced service effectiveness and taxpayer satisfaction. The government also used AI to find anomalies in tax returns and notifies companies whose revenues fall short of industry averages. By taking a proactive stance, non-compliance has decreased and voluntary compliance has increased.

AI and the Australian Tax Office (ATO)

AI has also been used by the Australian Taxation Office (ATO) to enhance tax administration and compliance. The ATO analyzes taxpayer data, recognizes non-compliance trends, and forecasts possible hazards using artificial intelligence (AI) and machine learning algorithms. This lessens the load on compliant taxpayers and helps the ATO target audits more efficiently, concentrating on high-risk cases. The application of AI has raised overall compliance rates, decreased tax evasion, and enhanced audit accuracy.

AI and Canada's CRA for Fraud Detection

AI has been used by the Canada Revenue Agency (CRA) to increase tax compliance and fraud detection. AI algorithms are able to spot suspicious trends and highlight possible instances of fraud and tax evasion by examining huge databases. As a result, the CRA is now able to carry out more

 ISSN: 2582-6433

focused investigations, retrieve lost money, and discourage fraudulent activity. The effectiveness of AI in detecting fraud shows how it may be used to improve the integrity of the tax system and bolster tax enforcement.

CONCLUSION

By boosting efficiency, decreasing manual labor, and improving accuracy in tax-related procedures, artificial intelligence (AI) and automation are completely changing tax systems and compliance. These changes are being driven internationally by key technologies including Big Data, AI, Process Automation, Digital Access to Knowledge, and Open Networks. Among the advantages are enhanced fraud detection, precise tax assessments, and simplified administration. Case studies from Australia and Spain underscore the critical role these technologies play in contemporary tax administration by showing how they improve taxpayer compliance, lower fraud, and improve service delivery.

Nevertheless, there are obstacles in the way of completely integrated AI systems. Tax authorities have to manage concerns about possible biases in AI models, strike a balance between transparency and the risk of system manipulation, and traverse uncertainty about the advantages of AI interventions. To ensure that these technologies provide the expected benefits, their development and implementation require large investments and cautious management. Furthermore, the tax profession itself is impacted by automation and artificial intelligence in addition to tax systems. Tax professionals need to adjust to new responsibilities requiring high analytical abilities and experience managing AI-driven procedures as traditional services become increasingly automated. This change makes it necessary to continuously learn and adapt in order to remain relevant in a changing environment.

In conclusion, even if automation and artificial intelligence (AI) offer a lot of potential to improve tax administration and compliance, they also bring some difficulties that need to be carefully considered. Tax authorities can improve the openness, effectiveness, and equity of their operations by making effective use of these technologies. At this crucial point, we must keep investigating AI's possibilities while closely weighing the moral, legal, and societal ramifications in order to create a stable, just, and future-ready tax system. The relationship between tax authorities and taxpayers is set to be redefined by the continued development of artificial intelligence in tax administration, opening the door to a more efficient and compliant future.