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"The Implications of Artificial Intelligence on Indian Taxes and Customs"

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Abstract

The integration of AI into tax systems represents a significant transformation in how tax authorities manage data, ensure compliance, and interact with taxpayers. This shift is not merely about adopting new technologies but has the potential to reshape the tax landscape in ways equal to the broader digital revolution impacting global economies. However, meaningful progress in AI hinges on identifying practical applications rather than being driven solely by technological enthusiasm. Through advanced machine learning techniques, AI enhances data analytics by predicting future trends based on historical data. This allows businesses to identify potential compliance issues before they arise. Nonetheless, challenges such as the need for large, well-organized data sets and concerns over privacy must be addressed before AI can be fully integrated into tax systems. In response to a complex and evolving regulatory environment, tax authorities and advisors are increasingly using advanced data analytics and AI to streamline compliance processes and provide comprehensive support to a diverse range of clients and taxpayers. The introduction of automated technology into the tax field brings innovative solutions to common tax challenges. This research examined the factors influencing AI adoption and the barriers to its implementation, specifically within the context of Indian taxation and customs, to explore the future of AI development in this sector.

Keywords: Taxation, Customs, Implications on Customs, AI, Automatic Technology and Customs

INTRODUCTION

Artificial Intelligence created a drastic change in the area of data analytics and compliance by offering advanced solutions that improve an organization's capacity to minimise risks and comply with regulations. AI systems are skilled at swiftly processing vast amounts of data and seeing patterns that could point to possible violations or compliance problems. In India, since regulatory compliance is strict and non-compliance can have dire implications, this expertise is extremely important. Furthermore, by using cutting-edge machine learning algorithms to forecast future patterns based on historical data, AI greatly improves data analytics. Companies can avoid reactive firefighting by using proactive management by being able to identify compliance issues before they happen thanks to this predictive capability. By democratising access to deep analytical skills without requiring a high level of technical competence, AI also democratises data analytics[1]. Additionally, data analytics powered by AI promotes compliance across the board in a company. The processing, analysis, and utilisation of tax-related legal information have changed significantly as a result of the introduction of AI into tax law and legal research. AI offers crucial tools for navigating this ever-expanding world with better efficiency and accuracy as the volume of legal papers and the complexity of tax law both continue to rise.

EXISTENCE OF ARTIFICIAL INTELLIGENCE AND TAX COMPLIANCE

- Before the emergence of Automatic Technology, manual procedures and antiquated methods were a major part of traditional tax compliance methods. This involved entering tax information into systems by hand, which raised the possibility of mistakes and necessitated thorough verification. Tax computations and reporting were not heavily automated, which led to lengthier processing times and potential delays. Hard copy records were maintained by taxpayers, which led to labour-intensive paperwork procedures and storage issues.
- Additionally, human analysis was largely relied upon for compliance checks and audits in order to analyse documents. These manual sampling techniques were laborious and ineffective in comparison to AI-driven analytics. It was challenging to understand intricate tax regulations, and seeking professional help was frequently necessary. In lieu of real-time predictive analytics, risk assessment and fraud detection were reactive, depending on past data and recurring audits. Traditional channels, such tax offices and customer care centres, were the main means of providing taxpayer support.
- Through a smooth integration into their workflow, AI technologies provide substantial advantages to professionals and individuals conducting tax research. Accuracy and efficiency can be improved by these technologies by offering predictive cues based on customer information and changing laws. Additionally, this integration will speed up the research process, cut down on time spent checking sources, and promote a more thorough comprehension of the consequences. Furthermore, AI has the ability to combine research results and provide customised messages that successfully explain to each client the significance of tax-related study.
- Globally, governments and tax agencies are adopting AI more and more to modernise tax administration procedures. AI-powered systems, with their advanced data analytics and pattern recognition capabilities, can be extremely useful in spotting abnormalities and trends that point to tax evasion. Due to the ability to allocate resources for enforcement activities more efficiently, tax authorities are able to maintain a fair and transparent tax system while also improving compliance. Governments can increase the efficacy of tax administration overall, reduce the danger of noncompliance, and improve decision-making processes by utilising AI.[2]

[1] NITI Aayog. (2018). *Discussion paper: National strategy for artificial intelligence*. https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf
[2] NITI Aayog. (2018). *Discussion paper: National strategy for artificial intelligence*. https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf

OBJECTIVES OF THE STUDY

- To know the significance and role of AI in Taxation in India
- To find out the barriers of adopting AI in Taxation and Customs
- To evaluate the Impact of AI in Indian Taxation and Customs.
- To assess the futuristic trend of AI in India.

SIGNIFICANCE OF AI IN CUSTOMS AND TAXATION

Combining AI and taxation is a transformative trend that's rapidly gaining momentum in India. This technological infusion is poised to overhaul the Indian taxation landscape, enhancing efficiency, accuracy, and compliance. As the country embraces digital transformation, understanding the market size and anticipated growth of AI in taxation becomes crucial for stakeholders across sectors. India's journey towards digitizing its taxation system, underscored by the implementation of AI and machine learning technologies, has begun to show tangible impacts. As of the latest data, the Indian AI market, encompassing various sectors including taxation, is burgeoning. The exact market size of AI in taxation is intricate to pinpoint due to the confluence of multiple technologies and platforms across different government and private sectors[3]. However, it's a critical component of the broader AI landscape in India, which is projected to reach billions of dollars in the next few years. The expected growth of AI in taxation in India is nothing short of exponential. With the Indian government's continued focus on digital infrastructure and the increasing adoption of AI by financial technology companies, the sector is ripe for expansion. Forecasts suggest a multi-fold increase in the market size within the next five to ten years.

AN IDEAL AND SECTORAL IMPACT

Opportunities will likely arise in the technological and finance sectors as a result of the predicted expansion of artificial intelligence in taxes. Technology businesses can take advantage of the growing industry by creating innovative AI-driven tax compliance and advice solutions.[4] By utilising AI, tax advising firms and financial institutions can provide their clients with improved services that increase efficiency and accuracy. Furthermore, it is anticipated that the widespread application of AI in taxation will promote a more vibrant startup scene in India, with new players concentrating on creative tax remedies. This fosters innovation and competitiveness in addition to contributing to the sector's growth. The rapid growth could be slowed down by a number of issues, even with the optimistic growth predictions. Because tax-related information is sensitive, data security and privacy considerations are critical. Furthermore, integrating AI technology with current tax systems presents logistical and technological difficulties that necessitate large infrastructure and training investments. Because tax-related information is sensitive, data security and privacy considerations are critical. Furthermore, integrating AI technology with current tax systems presents logistical and technological difficulties that necessitate large infrastructure and training investments.

BARRIERS TO ADOPT AI IN TAXATION

- The tax industry is recognized for its knowledge-driven culture, attracting professionals who excel at solving complex problems and navigating intricate rules applied to specific data sets. Experimenting with new technologies in this field is often discouraged, particularly when they are perceived as a threat or when users are unaware of the operational risks involved. Given the probabilistic nature of artificial intelligence, there will inevitably be instances where the machine produces an outcome that experts might deem "incorrect." However, this overlooks the fact that many of these questions are now being answered by non-experts, who are not always accurate

[3] Jeevanandam, N. (2024). *Impact of AI on customs operations*. IndiaAI Portal, Ministry of Electronics and Information Technology, Government of India.
[4]Technology News and article in CNBC TV18, published on May 2024. https://www.cnbctv18.com/technology/ai-impact-on-taxation-the-hype-and-realities-tax-compliance-deep-learning-and-natural-language-processing-19410701.htm

either. Therefore, instead of focusing solely on the application's error rate, risk assessments should consider whether AI reduces the likelihood of arriving at incorrect conclusions[5].

- A derivative of the first barrier is the second. Curated content is necessary for the computer to learn, and for some of the more complex classification problems, it is a fact that different competent specialists may classify items differently. Therefore, the results of a classifier coded based on the reasoning of one professional (or even a panel) may not coincide with the advice of other specialists who are equally trained.
- The adoption of analytics and artificial intelligence by tax authorities faces numerous challenges, as highlighted in the OECD's recent report *Advanced Analytics for Better Tax Administration*. These challenges include finding the right balance between centralizing processes and integrating diverse solutions while sharing practical experiences, developing models that demonstrably impact performance, navigating the wide range of available analytics options, and acquiring the skills needed to create custom solutions using open-source tools. Additionally, recognizing that data is an asset rather than just a byproduct of operations is crucial. These issues are also evident in the business sector, where stakeholders often struggle to determine the appropriate level of investment and the potential benefits of AI solutions. Essentially, the more capabilities an AI system has, the more costly it becomes. Thus, it is no surprise that cost plays a significant role in the decision to adopt AI.
- A recent poll conducted by Deloitte among attendees of tax analytics Debriefs revealed that the largest obstacle facing audiences in the US, Asia Pacific, and EMEA regions when pursuing an analytics strategy was limited funds or an unclear return on investment. Extrapolating these reactions to the use of AI makes sense. Businesses that choose to use AI must understand that while robots can be trained, it is not as sophisticated as human intelligence. This implies that the ability to determine which questions to ask and what the best response to each one is necessary in order to train the computer and increase trust in its accuracy. There are extremely few practitioners with the knowledge and expertise to create the corpus, guide the machine through the proper responses and ask the right questions, and have the time to devote to this process rather than high-paying advising jobs. This might be a significant real-world obstacle to the use of AI in taxes[6].
- The mindset of tax professionals and their clients presents another barrier to AI adoption. There is still a natural hesitation to trust new technologies, particularly when outcomes are not entirely precise, as both parties in a transaction often seek assurance that a human expert has reviewed and validated the machine's output. This reluctance is compounded by the concern among many tax professionals that AI may diminish their perceived value and increase the risk of client engagement. However, AI has the potential to enhance human value by allowing professionals to focus on more complex and strategic issues, rather than routine tasks that machines can handle. Additionally, the types of tax problems that justify investment in AI solutions remain limited.
- AI cannot be used to solve an issue in its entirety due to the unique fact patterns that define many difficulties in the tax consulting industry. Regarding its constituent parts, however, it is possible that some of them are particularly well-suited to our technique in the high-volume, fuzzy matching classifier challenge. Being able to convince professionals and clients that AI is a valuable addition to the team and that machine outputs are accurate is crucial to taking advantage of these kinds of opportunities. A growing number of jurisdictions are enforcing the availability

[5] Thomas & Reuters Tax and Accounting. (2023). *The impact of artificial intelligence on tax and accounting profession*. Global directory on artificial intelligence.

[6] OECD. (2015). *Addressing the tax challenges of the digital economy: Action 1 - 2015 final report*.

Brauner, Y., & Pistone, P. (2018). Some comments on the attribution of profits to the digital permanent establishment. *Bulletin for International Taxation, 72*(4a).

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and accessibility of the reasoning and information used to arrive at a decision that impacts a specific person. In 2018, the General Data Protection Regulation of the European Union came into effect. Particular limitations on "automated individual decision making" are included in Article 11. Although most applications in the corporate tax arena are exempt from the measures because they are intended to protect the personal data of individuals being used for profiling, some organisations may be discouraged from using artificial intelligence due to the scope of the Regulation and the harsh penalties for violating it, even if they are only using it as a risk mitigation strategy.

TAX COMPLIANCE STANDARDS AND THE IMPACT OF AI

1. ***Automating the preparation and filing of tax returns:*** AI improves tax operations by automating repetitive procedures like tax return preparation and filing. Artificial intelligence (AI)-driven software, frequently combined with robotic process automation (RPA), reliably collects data from sources such as trial balances and invoices and arranges it into the necessary tax forms.[7]
2. ***Tracking tax compliance and improvement:*** By promptly alerting users to new tax laws, artificial intelligence (AI) helps track and improve tax compliance. This strategy assists companies in reducing the risks of noncompliance, including monetary fines and harm to their brand.
3. ***Improving fraud detection and the tax audit process:*** Artificial intelligence (AI) makes tax audits more effective by identifying compliance flaws in past data through analysis[8]. By analysing massive databases, it also helps tax officials find abnormalities and possible fraud, protecting the integrity of the tax system[9].
4. ***Predictive analytics and forecasting:*** In order to identify trends across several tax filing cycles (annual, quarterly, and monthly), artificial intelligence (AI) systems analyse sales data. Businesses learn how to raise income, reduce costs, and sharpen strategies in a post-pandemic competitive landscape.
5. ***Supplemental data management:*** Managing enormous volumes of client data, ranging from employee records and unsorted papers to general ledgers and journal entries, can be difficult for tax and accounting experts. AI-powered document processing technology streamlines and expedites tax, accounting, and audit operations by automating data extraction and organisation from a variety of sources.
6. ***Strengthen client relationships:*** Chatbots and automated client conversations let businesses provide proactive client involvement and personalised services. This improves account management efficiency and client happiness.
7. ***Locate opportunities for tax advice:*** AI assists businesses in locating client-specific tax events, allowing for prompt outreach and the delivery of value-added services. As dependable counsel, companies improve client compliance and income production by outlining tax changes and providing customised advice.

THE FUTURE GROWTH OF ARTIFICIAL INTELLIGENCE IN INDIAN TAXATION

AI-based tax advisory services in India are on the verge of a significant transformation. With its ability to enhance compliance, improve efficiency, and increase accuracy, artificial intelligence has the potential to reshape the tax sector. Additionally, AI can offer more personalized services, revolutionizing how tax advice is delivered and managed in the country[10]. The following are some significant ways AI may influence tax advice in India going forward:

1. Automation of Routine processes: AI can automate a variety of repetitive and routine tax processing

[7] Zhou, L. (2019). Opportunities and challenges of artificial intelligence in the application of taxation system. In *Proceedings of the 2019 International Conference on Economic Management and Cultural Industry (ICEMCI 2019)*. Atlantis Press.
[8] Kumar, H. (2024). Artificial intelligence in Indian taxation: Market size and projected growth. *IndiaAI Portal, Ministry of Electronics and Information Technology, Government of India*.
[9] Zhou, L. (2019). Opportunities and challenges of artificial intelligence in the application of taxation system. In *Advances in economics, business and management research* (Vol. 109). Atlantis Press.
[10] Deloitte. (2019). *Artificial intelligence – entering the world of tax*.

processes, including form completion, tax computation, and data entry. This lessens the possibility of human error and allows tax experts to concentrate on more intricate and strategic work.

2. Better Fraud and Compliance Detection: Large datasets can be examined by AI systems to find patterns and anomalies that may indicate fraud or non-compliance.[11]. This ability can guarantee compliance with tax rules and regulations and greatly improve the efficacy of audits.

3. Data Analytics for Decision Making: AI is capable of processing enormous volumes of data to produce predictive analytics and insights. This entails being able to provide clients with strategic advice based on past data trends, enabling tax advisors to optimise tax positions and anticipate future tax obligations.

4. Improved Customer Experience: AI may give customised recommendations based on previous exch anges and individual financial situations, personalising the client experience.Virtual assistants and chat bots can instantly respond to frequently asked questions, enhancing customer service and engagement.

5. Regulatory Updates and Compliance: AI systems are capable of being taught to keep abreast of the most recent changes to tax legislation.To guarantee that the tax advising services are constantly in com pliance with the law as it stands, they can automatically apply these modifications.India's complex and constantly changing tax regulations require cuttingedge AI solutions to guarantee compliance and preve nt tax cheating, which will propel market expansion.[12]

6. Training and Education: By offering simulations and interactive learning environments that are current with the newest tax laws and technological advancements, AI-driven platforms can help with the training of tax professionals.

7. Cross-functional Integration[13]***:*** AI can help improve the way tax activities are integrated with other company processes, such as finance, operations, and human resources, opening the door to more comprehensive business strategy and management.

8. Cost Efficiency: By automating repetitive operations, reducing errors, and speeding up procedures, AI-powered systems may be able to lower operating costs for tax authorities as well as taxpayers. Its affordability is probably going to encourage broader use in the industry.

9. Technological Developments: Quick developments in artificial intelligence (AI) and machine learning technologies are enabling complex tax solutions, such as AI-driven consulting services and predictive analytics for identifying tax fraud.

10. Global Trends and Pressures: The growing use of artificial intelligence in taxation globally has placed pressure on India to align with international standards. As a result of this external influence, the integration of AI technology into India's tax system could occur at a faster pace, driving the country to modernize its tax processes more swiftly.

11. Government Initiatives: One of the main development drivers in the Indian tax system is the government's drive towards digitalization, which is demonstrated by programmes like the Digital India campaign and the introduction of AI-driven analytics for direct taxes and GST.[14]

Notwithstanding these advantages, there are still drawbacks to using AI in tax advice, including worries about data privacy, the necessity of large technology expenditures, and the need for professionals to continually learn new skills and adapt to changing circumstances. However, in order to handle the particular difficulties presented by AI, such as responsibility in automated decision-making and ethical issues, legal frameworks must change.

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[12] Qing, Y. (2019). The concept establishment and system construction of "artificial intelligence + tax collection and management." *Contemporary Economic Management, 12*, 77-83.

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FINAL REMARKS

India's taxation system is projected to benefit greatly from artificial intelligence in the years to come. This expansion offers financial institutions, enterprises, and technology providers a wealth of opportunities and holds the promise of a more accurate, efficient, and transparent tax system[15]. The use of artificial intelligence (AI) in taxation will surely grow as India pursues its digital transformation, influencing the nation's future tax management and compliance. To fully harness the benefits of AI in taxation and create a more reliable and equitable tax system, stakeholders must address the challenges while seizing the opportunities that come with this technological advancement. Effective collaboration and strategic planning are essential to ensure that AI's potential is realized in a way that enhances the fairness and efficiency of the tax system. An extensive examination is necessary due to the complicated environment that the integration of AI into India's taxation system creates, which includes both potential and obstacles. Significant sectors growth is indicated by the Indian government's ongoing investments in digital infrastructure and the financial technology industry's increasing adoption of AI technologies[16]. There are several motivating elements behind its expansion. All things considered, the use of AI to tax advice in India is a promising area that may result in more effective, precise, and perceptive tax procedures. To fully utilise AI in their services, tax advisers and firms will need to keep knowledgeable and flexible as legislation and technology change. AI has a key function in tax law and legal research that may greatly improve the timeliness, relevance, and correctness of legal services in addition to being an efficient instrument. As this technology develops further, it has the potential to completely rewrite the rules for tax compliance and legal research, establishing new benchmarks for the legal industry.

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