



DIGITAL TAX ADMINISTRATION & THE ROLE OF AI- Digital Transformation Initiatives in India

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BENEFITS OF AI IN TAX ADMINISTRATION

- Enhanced detection capabilities: Pattern recognition capabilities of modern AI systems to identify sophisticated tax evasion schemes- impossible to detect manually.
- Resource Optimization: AI driven risk assessment allows better allocation of limited audit and enforcement resources.
- Reduced Compliance Burden: To simplify compliance processes for honest taxpayers through pre-filled returns & automated assistance.
- Improved Taxpayer Services: Enhanced responsiveness & accessibility through AI powered chatbots & virtual assistants.
- Efficiency & Accuracy: Handling large financial datasets with automated data analysis, computing prowess & quick data processing speeds. AI is consistent, it reduces biases & mistakes, resulting in a more fair & unbiased execution of tax rules.



IMPLEMENTATION OF AI IN INDIAN TAX ADMINISTRATION SYSTEM

- Income Tax Department (ITD) is now employing AI to
 - monitor taxpayer behaviour by tracking online portal visits
 - flagging high-value transactions
 - filtering out Permanent Account Numbers (PANs) linked to suspicious claims
 - gradually build a comprehensive, 360-degree view of taxpayers' financial activities & detect patterns & inconsistencies in tax return filings, to identify behavioural trends among taxpayers
 - flag cases where 'harder nudge' needed- AI tools are used to raise “red flags” in cases involving high-value transactions where tax returns are either not filed or consistently filed incorrectly.
- ITD actively sharing financial transaction data with taxpayers to promote voluntary compliance. Since April 1, 2022, over 11 million updated returns have been filed, leading to an additional tax mop-up of ₹11,000 cr.
- A recent nudge campaign led to withdrawal of tax deduction claims amounting to ₹963 cr & additional ₹409.50 cr paid in taxes between April 1, 2023 & June 18, 2025.



PROJECT INSIGHT-2016

Project Insight represents one of India's most significant investments in AI-enabled tax administration-

- To strengthen the non-intrusive information driven approach for improving tax compliance & effective utilization of information in tax administration. Uses AI & ML algorithms to track high-value transactions & detect tax evasion. It combs through information from different sources, including social media sites, to sniff out spending patterns that do not match declared income.
- Key role in widening of tax-base & data mining to track tax evaders. The new technical infrastructure will also be leveraged for implementation of Foreign Account Tax Compliance Act Inter Governmental Agreement (FATCA IGA) and Common Reporting Standards (CRS).
- Implementation of reporting CMS to ensure that third party reporting by reporting entities is timely & accurate. Streamline data exchange mechanism with other Govt. Departments & exchange partners.
- Two key centers: Income Tax Transaction Analysis Centre (INTRAC) & Compliance Management Centralized Processing Centre (CMCPC). INTRAC acts as focal point for data analytics, combining background functions of data processing, quality monitoring & alert generation. CMCPC focuses more on preliminary verification, generation of bulk letters/notices & follow-up, compliance management & centralized processing of tax-related data.



KEY POINTS OF PROJECT INSIGHT

- Introduction of Annual Information Statement (AIS) & Taxpayer Information Summary (TIS).
- AIS-Statement provides complete information about taxpayer like TDS/TCS, incomes, financial transactions, information received from any officer/ authority/ body performing any functions under any law, foreign remittances etc.
- ITD-Repository of rich data-as many as 40 cr AIS generated from estimated 650 cr financial transactions in F.Y 2024-25. Based on AI-linked data analysis, ITD feels there is scope for improvement in the no. of ITRs being filed.
- While 9 cr returns were filed by taxpayers last year, about 7.42 cr taxpayers are recorded as having viewed their AIS, returning as many as 3.5 times on an average to see their statements.
- Form 26AS displays tax-related details like TDS &TCS, while TIS provides a category-wise summary of financial data.



- These tools provide more information to taxpayers, increasing transparency & allowing individuals to understand their tax obligations in a quick & simple framework.
- Non-filer Monitoring System (NMS): Uses machine learning algorithms to identify potential non-filers by analyzing data from multiple sources, including financial transactions, property registrations & high-value purchases.
- Predictive analysis for audit selection: Employs advanced algorithms to identify high-risk cases for scrutiny based on historical patterns & anomaly detection.
- 360-degree taxpayer profiling: Creates comprehensive taxpayer profiles by integrating data from various sources to identify discrepancies between reported income & actual economic activity.



E-filing 2.0 Portal with Chatbot Assistance

- Simple & user-friendly interface accessible on all devices, it is available 24/7 for return filing & fee payment.
- This feature eliminates the need for physical visits to tax offices reducing physical interface between them. The portal reduces errors & turnaround times by automating scrutiny & review work & it integrates well with other systems to ensure efficient data transfer.
- AI has been leveraged to present Chatbot Assistance, enabling real-time answers to taxpayer questions. Using guided navigation, the chatbot walks users through finding information quickly & offers educational resources like videos, tutorials & quizzes on multiple tax subjects.



FACELESS ASSESSMENT SCHEME-2017

- To eliminate the human interface in IT assessment between ITD & taxpayers using technology, thus reducing red tape & imparting greater accountability.
- Introduction of team-based assessments without reference to a jurisdictional authority, issuing show-cause notices centrally with Document Identification Numbers (DIN) for complete accountability in official communication.
- Team assessments are performed by specialized units, with flexible jurisdictional boundaries subject to action-oriented interpretation.
- Recent advancements have focused on fine-tuning AI to uncover discrepancies & flag potential high-risk cases.
- Scheme's scope has been widened to include appeals, penalty proceedings, investigations making it more comprehensive for better tax administration.
- Increases transparency with traceable actions thereby reducing the quantum of frivolous litigations & accelerates detection processes.



Income Tax Business Application (ITBA) 2.0

- Core application used by Income tax officers for all their operations including audits, penalties, appeals, compliances, search, investigation, identification management & HRM.
- ITBA 1.0 was modelled on monolith architecture based on obsolete technology stack, had scalability limitations, with redundant & inefficient processes.
- ITBA 2.0 replaced 100+ processes with a single unified master-process design to improve the application efficiency, streamline workflows & enhance operations.
- Will enable swifter implementation of frequent fiscal budget/regulatory changes by leveraging configuration- driven application with low-code/no-code agile design.
- A high-performing micro-services-based architecture with highly scalable on-premises private cloud stack for a future-ready application.



IMPLEMENTATION CHALLENGES

- Data Quality Issues: Inconsistent data quality across different sources.
- Technical Capacity constraints: limitations in technical expertise within tax departments.
- Integration with legacy systems: Integrating AI solutions with existing IT Infrastructure.



THANK YOU !!

