

# GST: Deploying AI solutions for data mining, generating automated notices & driving govt revenues

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concerned person onto our system.

"Since our BIFA system is integrated with NHAI e-Way bills on a real time basis, we know which goods have passed which toll plazas. We have accurate information on the movement of goods. We have a team of 110 Mobile squads and 40+ SIB teams, which look after the enforcement issues. These teams have done over 14 lakh vehicle checks in the last year."

This was stated by Nitin Ramesh Gokarn, Additional Chief Secretary, Housing and Urban Planning and State Tax Department, Government of Uttar Pradesh, in conversation with Arpit Gupta, Assistant Editor, ETGovernment. In the interview that follows Gokarn sheds light on the initiatives that the state has taken to improve the GST collection procedures.

## Edited excerpts:

### **Uttar Pradesh recorded 21% growth in State GST revenue collections in FY2023–24. In what ways did the deployment of IT and Artificial Intelligence systems contribute towards the rise in GST collections?**

The challenge was how to increase revenue collection without tinkering with GST rates. We developed an AI module for automated notice generation based upon database mismatches in returns filed. The AI module has so far generated six lakh notices and the department got GST deposits of ₹980 crore during the financial year 2023–24. The AI tool was developed at a cost of ₹18 lakhs with the help of IIIT Lucknow. Uttar Pradesh State Tax Department has adopted all the best practices in GST collection. When it comes to deployment of AI and other technology-driven initiatives for improving tax collection, we are either at par and, in many cases, ahead of several states.

### **What are the major initiatives that you have taken for enhancing the GST collections?**

The initiatives that were undertaken by the State Tax Department include an all out drive carried out by our teams for GST registration. Today we have nearly 32 lakh GST registered firms in the state which is the highest in the country. In the last one year, we have recorded more than three lakh registrations. We also provide insurance cover of ₹10 lakh to the head of the family of the GST registered firms under Vyapari Durghatna Bima Yojana. During the corona time, we settled claims of more than 240 cases. We have also deployed a Business Intelligence and Financial Analytics (BIFA) tool to identify unexplained increase in inward movement or outward movement of goods and revenues. Our system highlights such cases and gets them red flagged and then it is

sent to our team for necessary action.**Are you facing the problem of bogus ITC claims?**

We have plugged all the loopholes which were leading to bogus ITC claims. Now there are no cases of bogus ITC in Uttar Pradesh because our system facilitates 100% verification at the time of registration. This is done by our people who go to the spot and upload a selfie with the concerned person onto our system. Since our BIFA system is integrated with NHAI e-Way bills on a real time basis, we know which goods have passed which toll plazas. We have accurate information on the movement of goods. We have a team of 110 Mobile squads and 40+ SIB teams, which look after the enforcement issues. These teams have done over 14 lakh vehicle checks in the last year. Our departmental efforts at better enforcement, development of systems as well as the use of Business Intelligence and Financial Analytics (BIFA) are showing results.

### **How did you shortlist the Artificial Intelligence tools for deployment in the GST system?**

We sent our technical teams from the State Tax Department to study the best practices of several states in the country. Taking a cue from the best practices of Telangana and Andhra Pradesh where they had developed an Artificial Intelligence tool which helps in data mining and generating automated notices, we decided that we will incorporate the model within our system. We engaged IIIT Lucknow for the creation of the software and programmes. The data mining from our GST data was done through the AI tool. And we have been able to generate more than six lakh notices so far, and ₹980 crore has been deposited just by using this tool.

### **The startup ecosystem has made major progress in the country and Uttar Pradesh is today home to a large number of startups. What contribution are these startups making to the state?**

I think a lot of new-age startups are looking for real world problems and they have low cost and effective solutions available to resolve those problems. Customized solutions are always an issue unless the requirement is tailor made but when there are youngsters involved, they do understand the real world problems and develop solutions accordingly. This helps translate positive energy into our teams as well. Looking at the impact in GST collections, I am glad that we involved the IIIT and their students for the development of the AI solution.

### **The adoption of technology involves capacity building. How are you enhancing the digital skill set of your employees?**

The only way is to involve them right from the preparation stage and enable them to be tech savvy. This is the basic strategy for capacity building that we follow. When we do data mining using tech-tools then we come to know about the gaps, and take necessary actions. In capacity building, the most fundamental thing is to understand data, which is hugely available in case of GST. We are not averse to getting people on board through training programmes to increase capacity building within our own system. I must compliment some of our officers who are tech-savvy and they possess the capacity to use technology for making swift-decisions.

### **Uttar Pradesh has overtaken Tamil Nadu in terms of monthly GST collections, recording a 19% increase in tax revenues in April 2024. What are the reasons for the growth of GST?**

If you look at the last year's data and even the April 2024 data of monthly GST collections, Uttar Pradesh has faster growth rates than that of Maharashtra, Gujarat, Tamil Nadu, Telangana and Haryana. One of the important reasons behind the higher and faster growth rates of the GST is enforcement. We are now looking at entering into the services sector. Our department has traditionally been an offshoot of the erstwhile Sales Tax Department, which was very good in terms of understanding sales tax on goods and products.

Service sector is emerging at a faster pace now. As the economy deepens in terms of its financial inclusion and financial services, banking services and several other services that will be admitted, we are looking at increasing the GST network as far as services are concerned. For this, we have done a deep dive and seen what are the various types of services and how do we actually assess them. We have made standard operating procedures (SOPs) to assess the GST liabilities through the books of accounts and other things that will enable our officers to understand what a balance sheet is or what a profit and loss statement is to enter into that domain and prepare information.