

SIMPLIFICATION OF INDIRECT TAXES THROUGH TECHNOLOGY - A CASE STUDY OF GST

** Dr. Sunil Kadam & ** Madhuri Singh*

** Research Guide and I/C Principal, ** Research Scholar and Assistant Professor, N. G. Acharya and D.K. Marathe College, Chembur.*

Abstract:

Goods and Services Tax have been introduced and implemented to reduce the complexities and challenges present in the traditional indirect taxes regime. Majority of the old indirect taxes have been subsumed by GST making the experience happier for the taxpayers. But alone this was not sufficient to make the journey of GST comfortable and hassle-free, the government is gradually moving towards technology and automation in this field to make the indirect taxes system seamless and flawless so that the taxpayers don't have to worry about the filing of GST and at the same time maximum compliance is assured and ensured on their part. In this research paper, we will understand that the technology and software have helped in simplifying the indirect taxes system as compared to older system.

Keywords: *Goods and Services Tax, Technology, GSTN*

Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial Use Provided the Original Author and Source Are Credited.

Introduction:

The traditional indirect taxation system of India consisted of innumerable taxes like custom duty, Excise duty, Services tax, VAT, Octroi, Stamp duty and so on. Many taxes were collected by centre and a few were the responsibility of the states. The rates of taxes being different, they varied in their administration. Moreover, there was disagreement between the centre and the states on different tax related matters making the administration even more difficult. There were many other challenges associated with the indirect taxes system such as less transparency, cascading effect, increased prices, multiple taxes and their rates, no input tax credit, lots of paper work, lengthy process and so on. To overcome these challenges, a unified tax system was introduced in 2017 known as 'Goods and Services Tax'. This tax has uprooted several indirect taxes, thus eradicating them and simplifying the system. This tax consists of fewer tax slabs like currently there are only three 5%, 18% and 40%. It enables in reducing confusion, reduced tax rates, lower prices, increased transparency, availability of input tax credit, less paper work due to more dependence on technology and thus availability of E services has led to reduced time and efforts. In this research paper, we are going to study whether and how GST has turned the complicated traditional indirect taxes into a simple and convenient system.

Objectives of the Study:

- 1) To study whether GST has made the indirect tax system simple and transparent through the use of technology.
- 2) To understand the GSTIN network for GST.

Literature Review:

1) ABDUL SATTAR, SYED MUJTABA (2025):

In this research paper titled, ‘A Study on the Role of Technology in Implementation and Compliance of GST in India’ it is emphasised that GST has helped in the minimisation of fraud as the system enables cross checking of the facts and figures. The concepts like E Way bill and E invoices have made the system error free. Though the technology has its own issues and challenges which need to be overcome like technology glitches, digital knowledge and so on.

2) HARIKRISHNAN, ISHWAR ET AL. (2024):

The research paper titled, ‘Role of Technology in GST Compliance in India’ conveys that though enough has been done to simplify the process of GST filing and registration, there still exists a scope for improvement in technology which will enable to reduce not only the efforts of the tax payers but also the administration.

3) PRADIPTA MUKHOPADHYAY (2023):

The research paper titled ‘A Case Study on GST and Development of India in Modern Era’ tries to bring to the notice that the use of technology in administration of GST has simplified the compliance procedures and tax evasion has been controlled to a large extent.

4) HELLY M., SHOBHA (2024):

In this research paper titled ‘Case Studies on GST Tax Evasion: Patterns, Impacts, and Regulatory Responses in India’ discusses that though there has been tremendous improvement in the indirect tax system through the technification of the entire process from filing to the generation of the e-invoices and so on. This has led to the reduction in the evasion of indirect taxes, but these provisions are still not sufficient and the objectives of this system has not been completely achieved. The robust system needs to be strengthened further.

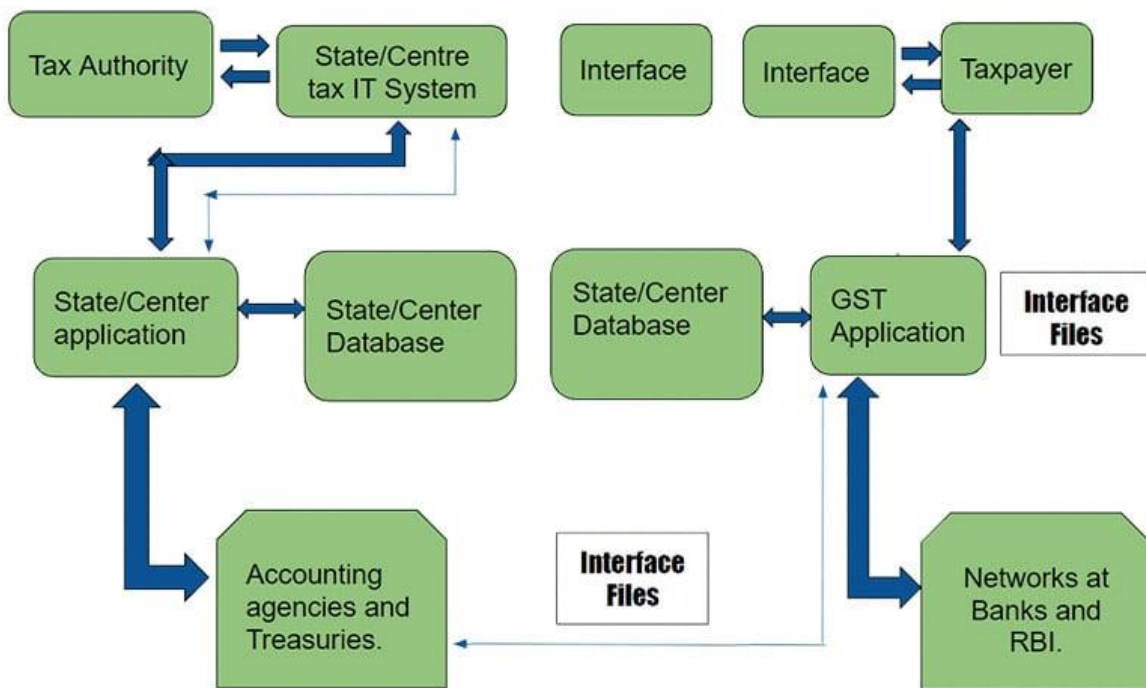
Need of the Study:

This study focusses on the technological advancement through GST for simplification of indirect taxes system. Older indirect taxation system consisted of many lacunas which led to the need of new system in the form of GST. It is completely dependent on technology and hence it is necessary to understand whether the new tax system has simplified the indirect taxes mechanism.

Data Collection:

Data for the study is collected through secondary sources like internet, books, magazines and so on.

GSTN



<https://tax2win.in/guide/what-is-gstn>

It is a robust network developed under a non-profit mission for the technification and automation of GST to enhance the transparency in the payment of fair taxes by avoiding and minimising tax evasion. This network is very crucial with regards to the smooth functioning of the mechanism of GST. It can also be called as the digital nervous system as it looks after the registration, filing of the returns, payment of GST, matching of the invoices and so on. The network maintains and preserves the data centrally. It is shared across the entire country since the year 2022. The network is divided between the state and the central government. GSTN is also known as the mother database as it not only provides the required data across multiple players like the government, the banks and the tax payers but also speeds up the process.

Goods and Services Tax Network (GSTN) has built an Indirect Taxation platform for GST to help taxpayers in India to prepare, file returns, make payments of indirect tax liabilities and do other compliances. It provides IT infrastructure and services to the Central and State Governments, taxpayers and other stakeholders for implementation of the Goods and Services Tax (GST) in India.

The GST System Project is a unique and complex IT initiative as it established for the first time a uniform interface for the taxpayer under indirect taxes through a common and shared IT infrastructure between the Centre and States. The Centre and State indirect tax administrations which used to work under different laws, regulations, procedures and formats and consequently the IT systems worked as independent sites, were integrated into one system with uniform formats and interfaces for taxpayers and other external stakeholders.

GSTN provides a strong IT Infrastructure and Service back bone which enables capture, processing and exchange of information amongst the stakeholders like the taxpayers, States and Central Governments, Accounting Offices, Banks and RBI.

Like any other new system, this application of technology in GST had to go through multiple challenges such as providing proper training to the tax officials in limited time, to establish a huge, flexible yet flawless system which would cater to different statutes meant for different type of organisation and should not hang on the due dates due to last hour rush of the tax payers.

Importance of Technology in the Administration of Indirect Taxes:

Prior to the automation of the indirect taxation, the filing process had been very lengthy and cumbersome. There were lots of incidences of typing error and instances of omission of certain transactions which created stress on the part of the taxpayer. Lots of records had to be maintained manually for a longer period of time. On the contrary, the robust technology used under GSTN enables handling a traffic of 1.3 crore tax payers.

- The new system assists in faster settlement of the transactions in real time. It also helped in the reduction of tax evasion by automatic cross checking of the bills generated and submitted by the tax payer. If any discrepancy is found, the system immediately reports it. This minimises the losses for both the taxpayers as well as the government. In case of Input Tax Credit, the amount can be calculated without any delay with the help of the software and this can be helpful in claiming the refund at the earliest. Additionally, the software assists in the filling of the GST forms using the readymade data fed in the system ensuring that there is no delay in the filing of returns and thus avoiding penalties arising out of the same.
- Due to the generation of e-invoices under this technology, the records are crystal clear, thus helps in bringing about increased transparency. Even minute mistakes are caught under the system as all the records are uploaded in advance. This decreases the dependency on the number of manual audits.
- Also, the taxpayers are relieved from making rounds to the tax offices for any queries raised by the tax department. It saves money, time and energy. This leaves very little space for corruption and bias.
- It can assist in providing expert advice like any other tax consultant or expert in case of any issues related to tax

Robotic Process Automation:

This automation in GST helps in reading the data which is already fed in the system by the supplier and the manufacturer. It cross checks the data fed by different parties from different locations for the same transactions with utmost accuracy. The available data can be tailored according to the requirement of the taxpayer for different purposes. The RPA relieves the humans from repetitive jobs to a more creative one.

Blockchain Technology:

This technology is still in its initial phases. It will help in building trust between the government and the taxpayers. It will allow real time reporting. It not only records data but also verifies it with accuracy. Cross border transactions will be much faster and accurate and transparent. It will also nullify the need for audit and save on resources.

E Documents of GST

E-Invoice:

It is an automatic bill generated with a reference number which helps in reducing human errors, brings transparency and enables real time visibility to the government about the transactions taking place. In other words, this is a government validated electronic bill. It does not require the physical copy of bill.

E-Way bill:

It is an electronic bill for the movement of goods exceeding ₹50000. This helps in saving time by easy movement of goods in a state or interstate supply of goods without the need for manual receipt. It contains data like challan number, HSN Code, transport document number, Pin code of the place of delivery etc.

Tax Information Exchange System:

This is a system managed by Organisation for Economic Co-operation and Development which allows sharing of the data of tax payers for the purpose of ensuring compliance, increased transparency by fighting tax evasion between the member countries. In India it is centralised database for tracking the transactions between two states.

Conclusion:

From this research paper it is clear that implementation of Goods and Services Tax has simplified the indirect taxes through the use of technology. Technology has been not only helpful in bringing the transparency in the system, but also has fasten up the processes and made things more convenient for the taxpayers. Though the development is still in the initial stages, achieving full success is a long journey ahead.

References:

- 1) International Journal of Commerce and Management Research www.managejournal.com ISSN: 2455-1627
Received: 10-07-2025, Accepted: 09-08-2025, Published: 25-08-2025 Volume 11, Issue 8, 2025, Page No. 115-118
- 2) International Journal for Multidisciplinary Research (IJFMR) E-ISSN: 2582-2160 • Website: www.ijfmr.com
- 3) <https://ijarsct.co.in/Paper10906.pdf>
- 4) file:///C:/Users/ajitg/Downloads/[2024+issue]+AFTER_10_04_630782++Shobha+V++JES---AL+(1)%20(1).pdf
- 5) <https://www.gstn.org.in/about-us>
- 6) <https://cleartax.in/s/what-is-gstn>
- 7) <https://www.michaelpage.co.in/clientprofile/gstn>
- 8) <https://www.indiafilings.com/learn/what-is-gstn>
- 9) https://www.referencer.in/general_information/GSTN.aspx
- 10) <https://lexntax.com/view-blog/how-technology-is-simplifying-taxation-compliance-in-india>

Cite This Article: Dr. Kadam S. & Singh M. (2026). *Simplification of Indirect Taxes through Technology - A Case Study of GST In Educreator Research Journal: Vol. XIII (Issue II)*, pp. 146-150