



LEVERAGING DIGITAL GOVERNANCE FOR INCLUSIVE ECONOMIC GROWTH: GST REFORMS AND FISCAL FEDERALISM IN TAMIL NADU

Editors

Dr. A. Anandhiprabha

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Volume - I



A One Day National Seminar on

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Volume I

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DIGITAL SHIELD: TECHNOLOGY FOR TRANSPARENCY AND ANTI-EVASION



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Abstract

In the contemporary digital economy, technology has been identified to be instrumental in fostering transparency and preventing financial irregularities. Technology-driven transparency and financial evasion measures involve the application of advanced digital technologies like Artificial Intelligence (AI), block chain technology, big data analytics, cloud computing, and digital identity to monitor and enforce compliance in governance and financial systems. These technologies have been identified to be effective in preventing financial irregularities like tax evasion, financial fraud, and corruption in governance and financial systems. Moreover, data exchange mechanisms and digital governance have been identified to be effective in fostering regulatory efficiency and public trust in governance and financial systems. This paper examines the application of emerging technologies in fostering financial transparency and preventing financial irregularities like financial evasion. The study also examines the benefits, challenges, and implications of technology-driven governance mechanisms. The study found that technology-driven financial monitoring mechanisms have been effective in fostering financial transparency.

Keywords: *Transparency, Digital Governance, Artificial Intelligence, Big Data Analytics, Block chain Technology, Financial Compliance*

Introduction

The need for transparency and accountability is one of the most critical aspects of good governance. However, the conventional systems of monitoring often face problems such as tax evasion, financial fraud, corruption, etc. In recent times, the rapid development of technology has encouraged the use of technology-based systems for ensuring transparency and preventing illegal financial practices.

Technology-enabled transparency can be defined as the use of advanced technology systems for the monitoring of financial transactions. Artificial Intelligence, blockchain technology, big data, etc., enable organizations to monitor all the activities in real time. These technologies also enable the creation of electronic records, which can be accessed at any time. Moreover, the use of these technologies enables the creation of automatic reports that can be accessed by all the departments of the organization. This increases the efficiency of the regulatory systems.

In recent times, the introduction of e-tax filing systems, electronic payment systems, etc., has greatly helped in reducing errors and the scope of manipulation. In the recent past, the global financial systems have become more interconnected. Therefore, the need for the introduction of technology-based anti-evasion systems has become critical.

Objectives of the Study

The study is conducted with the following objectives:

- To study the role of technology in enhancing transparency in financial and governance systems.
- To study the role of technology in preventing tax evasion and financial fraud.
- To study the effectiveness of modern technology in enhancing compliance with regulations.
- To study the advantages and disadvantages of technology-based anti-evasion measures.
- To suggest ways of enhancing technology-based transparency measures.

Review of Literature

- **Al-Htaybat and Von Alberti-Alhtaybat (2021)** highlighted the significance of blockchain technology in financial systems, explaining how decentralized ledgers create tamper-proof records that improve transparency and reduce fraud.
- **Guglyuvatty (2025)** examined the use of Artificial Intelligence in tax administration and found that AI-based risk analysis systems can significantly improve tax compliance by identifying suspicious financial patterns.
- **Munjeyi and Schutte (2025)** developed an AI framework designed to detect tax non-compliance using predictive analytics, demonstrating that data-driven approaches enhance enforcement efficiency.
- **Goyal (2026)** discussed the transformative potential of block chain in taxation systems, noting that block chain-based platforms can improve audit trails and enhance transparency in financial transactions.

Research Methodology

Nature of the Study

The study is “Descriptive and analytical in nature”, focusing on the role of digital technologies in improving transparency and preventing financial evasion.

Sources of Data

The study is based on “Secondary data”, and has been collected from the following sources:

- Research journals
- Academic books
- Government reports
- Online publications and data
- Articles related to digital governance and financial technology

Scope of the Study

The study is related to the role of technology in improving transparency and avoiding financial misconduct in the field of governance, taxation, and finance.

Limitations of the Study

The study is based on secondary data.

- Technological changes are dynamic, and some mechanisms might be affected by such changes.
- The study is related to general global practices, and specific country-level practices are not included in the study.

Technology Enabled Transparency and Anti-Evasion Mechanisms

• Digital Financial Tracking Systems

Digital financial tracking systems help the government track financial transactions in real-time. It is possible to track tax-related data, bank-related data, and business-related data in a centralized database, making it easier to track inconsistencies in financial transactions.

• Artificial Intelligence and Data Analytics:

Artificial Intelligence can be used to assess risks and track fraud cases. AI systems can track a lot of financial data and track suspicious patterns that might indicate cases of tax evasion.

• Block chain Technology:

Block chain technology offers a decentralized and immutable data management solution that can provide a high level of transparency and trust in a data management solution. Once data is added to a block chain, it cannot be deleted or edited.

• Digital Identification Systems:

Digital identification systems such as biometric identification and multi-factor identification can be used to accurately identify people and minimize instances of identity thefts.

• Cross-Border Information Sharing:

Financial cooperation agreements like Automatic Exchange of Information (AEOI) enable countries to share financial information to prevent tax evasion.

• E-Governance Platforms:

Electronic platforms for tax filing, electronic transactions, and government portals promote transparency by providing traceable financial information.

• Big Data Integration:

Big data technology helps governments to analyze large amounts of financial data and match them to identify inconsistencies.

• Cloud Computing Systems:

Cloud technology helps in efficient monitoring of financial information by providing access to data from anywhere.

Findings of the Study

Some of the findings of the study include the following:

- The use of digital technology can greatly enhance financial transparency as well as the efficiency of financial regulations.
- AI and data analysis can identify suspicious financial transactions faster than traditional auditing practices.
- The use of block chain technology can provide secure financial records.
- The use of digital governance can reduce corruption since there is less room for human involvement.
- The sharing of information can enhance international cooperation against tax evasion.

Suggestions

On the basis of the above findings, the following suggestions are proposed:

- Governments should invest in advanced digital infrastructure to enhance financial monitoring systems.
- Training programs should be conducted to improve digital literacy among government officials and taxpayers.
- Strong cyber security systems should be implemented to safeguard sensitive financial data.
- International collaboration should be enhanced to address global financial crimes.
- Digital governance initiatives should be extended to rural areas to promote inclusive participation.

Conclusion

The technology-based transparency and anti-evasion measures have revolutionized financial governance systems in modern times. The latest technology has enabled financial governance through Artificial Intelligence, block chain technology, big data analytics, and cloud computing.

The latest technology has reduced financial fraud, tax evasion, and corruption to a great extent in financial governance. Although some issues have been raised regarding the implementation cost, privacy issues, and technical issues with the latest technology, its benefits outweigh its demerits.

The dynamic financial environment in the digital economy has made it essential to incorporate innovative technology in financial governance.

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