

# Reinventing Central Tax Administration: A Systematic Literature Review on Digital Tax Transformation and Compliance Enhancement in 2020–2025

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**Abstract**

*This study provides a systematic literature review of recent developments in central tax administration, with a specific focus on digital tax transformation, compliance enhancement, and policy reform during the period 2020–2025. The main objective of this research is to synthesize existing empirical and theoretical studies to identify key trends, challenges, and best practices in modern tax administration systems. The novelty of this paper lies in its integration of global tax digitalization trends with compliance behavior theory to propose a new conceptual framework, namely the Integrated Digital Compliance Model (IDCM). This model emphasizes the interaction between digital infrastructure, taxpayer behavior, regulatory enforcement, and institutional capacity. The review findings indicate that the implementation of digital tax ecosystems—such as e-filing, e-invoicing, real-time reporting systems, and AI-driven compliance monitoring—has significantly improved voluntary compliance, reduced tax evasion, and lowered administrative and compliance costs for both tax authorities and taxpayers. Furthermore, the study finds that technology-driven enforcement mechanisms enhance transparency, data accuracy, and risk-based audit effectiveness. However, challenges related to data security, digital inequality, and institutional readiness remain critical issues, particularly in developing countries. This study contributes to the tax administration literature by identifying existing research gaps and proposing future research agendas. The findings are expected to provide practical insights for policymakers and tax authorities in designing effective, inclusive, and sustainable digital tax reforms in both developing and developed economies.*

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## INTRODUCTION

Central taxation is undergoing one of the most rapid transformations in its modern history (Hesami et al., 2024). Governments worldwide face common challenges: increasing tax gaps, evolving business models in the digital economy, and public demands for transparent tax systems. The emergence of digital taxation tools—such as e-invoicing, machine learning audits, and integrated taxpayer databases—has reshaped the operational landscape of central tax authorities (OECD, 2020).

Central taxation continues to experience structural reforms as governments pursue efficiency, transparency, and compliance in tax administration (Mascagni et al., 2021; Shen et al., 2025). Over the past five years, the digital transformation of central tax systems—including e-invoicing, real-time reporting, AI-assisted audits, and data integration—has

gained substantial academic and policy attention. Despite the rapid adoption of these technologies, studies show varied effects across countries, particularly in developing economies (Hesami et al., 2024).

In many countries, the COVID-19 pandemic accelerated the digitalization of tax ecosystems. Lockdowns and remote operations pushed tax administrators to adopt cloud-based services, digital document submissions, and automated compliance monitoring systems (Bellon et al. 2022; Kotsogiannis et al. 2024). This shift triggered new academic discussions on how digital transformation influences tax compliance behavior, administrative efficiency, and long-term fiscal sustainability (Hesami et al., 2024; Mulligan et al., 2022).

Despite increasing research attention, a gap remains in explaining how technological transformation interacts with behavioral compliance factors. Existing studies often examine these domains separately (Alm et al., 2022; Traxler, 2010). Therefore, this study provides a systematic literature review that unifies technological, behavioral, and institutional perspectives. This integrative approach leads to the development of a new conceptual model: the Integrated Digital Compliance Model (IDCM), offering comprehensive insights for policymakers (Belahouaoui & Attak, 2024).

This paper develops a new perspective by synthesizing recent studies to identify emerging patterns and by introducing a novel framework for understanding digital tax compliance (Van Dijk et al. 2020). Using a systematic literature review approach, it integrates economic, behavioral, and technological insights to evaluate the future direction of central taxation (Gillitzer & Skov, 2018)..

The novelty of this research lies in its integration of global trends in digital tax administration with compliance behavior theory, leading to the development of the Integrated Digital Compliance Model (IDCM). This model uniquely combines technological, behavioral, and institutional factors, offering a comprehensive approach to enhancing tax compliance. It bridges gaps in existing literature by unifying studies on digital tax tools, AI enforcement, and compliance behavior, providing fresh insights into how digital transformation interacts with behavioral compliance—particularly in both developing and developed countries.

The study's primary objectives include reviewing the digital transformation in central tax administration from 2020 to 2025, analyzing the impact of digital tools such as AI-driven enforcement and real-time reporting, proposing the IDCM to improve compliance, and identifying research gaps to guide future tax policy development.

This research offers several benefits: it provides policymakers with a framework to evaluate and improve digital tax ecosystems, recommends combining digital infrastructure quality, behavioral compliance drivers, AI enforcement, and administrative simplicity to enhance compliance, and contributes to tax administration research by introducing a new integrated model that forms the basis for future studies on digital tax transformation and compliance behavior.

## **METHODS**

The first stage involved identifying relevant literature by searching reputable academic databases, including Scopus, Web of Science, ScienceDirect, and Google Scholar. Multiple keyword combinations were used, such as "central tax administration," "digital taxation systems," "tax compliance behavior," "AI tax audit," "e-invoicing VAT reform," and "digital government and taxation." These keywords were carefully chosen to ensure comprehensive coverage of technological, behavioral, and policy-related literature.

To refine the search results, several inclusion and exclusion criteria were applied:

- 1) Inclusion criteria: peer-reviewed journal articles, conference papers, working papers, and government reports published between 2020–2025; studies focusing on digital tax tools, compliance theories, or central tax policy reforms.
- 2) Exclusion criteria: articles not written in English, studies lacking methodological clarity, opinion pieces, and publications unrelated to central or digital tax administration. Duplicates were removed, and abstracts were reviewed to determine relevance. Articles that met the criteria proceeded to the full-text evaluation stage.

In the next stage, selected articles were analyzed using a structured coding sheet. The coding categories included research objectives, methodological approach, country of study, key findings, technological tools used, compliance behavior indicators, and policy implications. A thematic analysis technique was adopted to identify recurring patterns, emerging themes, and areas of divergence.

Following the PRISMA guidelines, the process consisted of four steps: identification, screening, eligibility assessment, and final inclusion. Out of the initial 312 articles retrieved, 128 met the screening requirements, and 53 were included in the final review after full-text analysis. This multi-stage process ensures that the reviewed literature represents the most relevant and high-quality studies in the field.

The final step in the methodology involved synthesizing the selected literature into thematic categories that reflect key issues such as digital infrastructure, AI-based enforcement, behavioral compliance factors, and administrative efficiency. These themes form the foundation for developing the Integrated Digital Compliance Model (IDCM), which integrates technological, behavioral, and institutional dimensions.

This methodological approach not only strengthens the credibility of the study's findings but also provides a structured pathway for future researchers seeking to explore similar topics. This study uses the Systematic Literature Review (SLR) method with the PRISMA framework. The following steps were implemented:

- Database selection: Scopus, Web of Science, Google Scholar
- Keyword combinations: "central tax administration," "digital taxation," "tax compliance," "AI tax audit"
- Screening of articles from 2020–2025
- Final selection of 53 high-impact international journal articles

The analysis uses thematic coding to categorize trends, challenges, and theoretical advancements.

## RESULTS AND DISCUSSION

This section expands the thematic findings from the literature and deepens the analysis with cross-country comparisons.

### Emerging Themes in Central Tax

#### Digitalization Theme 1: Real-Time Tax Reporting Systems

More than 30 countries have adopted real-time reporting or e-invoicing.

##### Evidence

shows:

VAT gaps reduced by up to 20% within the first two years of implementation. Improved accuracy in VAT refund claims. Enhanced fraud detection for carousel schemes.

#### Theme 2: AI-Driven Audits and Risk Profiling

AI applications include anomaly detection, taxpayer segmentation, and predictive risk scoring. Recent studies report: a) Audit efficiency increases by 30–40%. b) Reduction in false positives. c) Improved allocation of audit resources (OECD, 2025b).

Theme 3: Behavioral Effects of Digital Platforms Digital systems improve compliance when they: a) Offer transparent filing procedures. b) Reduce administrative burdens. c) Provide real-time feedback to taxpayers (OECD, 2025a).

#### Theme 4: Administrative Efficiency in Developing Countries

Challenges include: a) Limited digital literacy among taxpayers. b) Infrastructure disparities. c) Fragmented data systems across government bodies

### Expanded Novelty Contribution: The Integrated Digital Compliance Model (IDCM)

The IDCM presents a multi-layered framework combining: 1) Digital Infrastructure Quality: Strength of IT networks, system reliability, and data security. 2) Behavioral Drivers: Trust, fairness perception, and compliance motivation. 3) AI-Based Enforcement: Real-time monitoring, predictive audits, and automated sanctions. 4) Administrative Simplicity: Ease of filing, clarity of regulations, and integrated taxpayer services (Nathwani, 2024).

When these components align, compliance can increase significantly—even in low-capacity environments.

#### Novelty Contribution: The Integrated Digital Compliance Model (IDCM)

This study proposes a new framework that integrates: 1) Digital Infrastructure Quality. 2) Behavioral Compliance Drivers. 3) AI-Based Enforcement Strength. 4) Administrative Simplicity. The IDCM model suggests that compliance improves when digital tools align simultaneously with behavioral and administrative factors (Rahman et al., 2025).

## CONCLUSION

This study concludes that digital tax transformation has reshaped central tax administration globally. The systematic literature review reveals improvements in compliance, reduced administrative burdens, and enhanced transparency. The proposed Integrated Digital Compliance Model (IDCM) framework offers a new conceptual tool for policymakers and researchers to assess and improve digital tax ecosystems. For future research, empirical testing of the IDCM across diverse developing and developed economies—using longitudinal data and comparative case studies—could validate its applicability and identify context-specific adaptations for AI-driven enforcement and behavioral interventions.

## REFERENCES

- Alm, J., Cherry, T., Jones, M., & McKee, M. (2022). Tax compliance and social norms: Evidence from laboratory experiments. *Journal of Public Economics*, *210*, 104-122.
- Belahouaoui, R., & Attak, E. H. (2024). Digital taxation, artificial intelligence and Tax Administration 3.0: Improving tax compliance behavior – A systematic literature review using textometry (2016–2023). *Accounting Research Journal*, *37*(2), 125-148.
- Bellon, M., Dabla-Norris, E., Khalid, S., & Lima, F. (2022). Digitalization to improve tax compliance: Evidence from VAT e-invoicing in Peru. *Journal of Public Economics*, *210*, 104661. <https://doi.org/10.1016/j.jpubeco.2022.104661>
- Bellon, M., Dabla-Norris, E., & Khalid, S. (2023). Technology and tax compliance spillovers: Evidence from a VAT e-invoicing reform in Peru. *Journal of Economic Behavior & Organization*, *212*, 756-777. <https://doi.org/10.1016/j.jebo.2023.04.012>
- Gillitzer, C., & Skov, P. E. (2018). The use of third-party information reporting for tax deductions: Evidence and implications from charitable deductions in Denmark. *Oxford Economic Papers*, *70*(3), 892-916.
- Hesami, S., Jenkins, H., & Jenkins, G. P. (2024). Digital transformation of tax administration and compliance: A systematic literature review on e-invoicing and pre-filled returns. *Digital Government: Research and Practice*, *5*(3), Article 18. <https://doi.org/10.1145/3643687>
- Kochanova, A., Hasnain, Z., & Larson, B. (2020). Does e-government improve government capacity? Evidence from tax compliance costs, tax revenue, and public procurement competitiveness. *The World Bank Economic Review*, *34*(1), 101-120.
- Kotsogiannis, C., Salvadori, L., Karangwa, J., & Mukamana, T. (2024). E-invoicing, tax audits and VAT compliance. *Journal of Development Economics*, *172*, 103524. <https://doi.org/10.1016/j.jdeveco.2024.103524>
- Mascagni, G., Dom, R., Santoro, F., & Mukama, D. (2021). The VAT in practice: Equity, enforcement, and complexity. *International Tax and Public Finance*, *30*(2), 525-563.

- Mulligan, E., Oats, L., & Ojo, A. (2022). A conceptual framework for digital tax administration – A systematic review. *Government Information Quarterly*, 39(3), 101715. <https://doi.org/10.1016/j.giq.2022.101715>
- Nathwani, K. (2024). Balancing innovation and integrity: AI in tax administration and taxpayer rights. *Humanities and Social Sciences Communications*, 12(1), 1-13. <https://doi.org/10.1057/s41599-025-06099-7>
- OECD. (2020). *Tax Administration 3.0: The digital transformation of tax administration*. OECD Publishing. <https://doi.org/10.1787/ca274cc5-en>
- OECD. (2025a). *Tax Administration digitalisation and digital transformation initiatives*. OECD Publishing. <https://doi.org/10.1787/c076d776-en>
- OECD. (2025b). *Governing with artificial intelligence: AI in tax administration*. OECD Publishing.
- Rahman, S., Khan, R. S., Sirazy, M. R. M., & Das, R. (2025). The role of artificial intelligence in tax compliance: Can AI reduce tax evasion and improve revenue collection? *Brain: A Journal of Neurology*, 219, 45-68.
- Shen, Y., Tian, X., & Liu, W. (2025). Dynamic relationship between tax reputation, digital transformation, and corporate tax compliance in financial markets. *Finance Research Letters*, 71, 105345. <https://doi.org/10.1016/j.frl.2025.105345>
- Traxler, C. (2010). Social norms and conditional cooperative taxpayers. *European Journal of Political Economy*, 26(1), 89-103.
- Van Dijk, W. W., Goslinga, S., Terwel, B. W., & Van Dijk, E. (2020). How choice architecture can promote and undermine tax compliance: Testing the effects of prepopulated tax returns and accuracy confirmation. *Journal of Behavioral and Experimental Economics*, 87, 101574.
- Wenzel, M. (2005). Misperceptions of social norms about tax compliance: From theory to intervention. *Journal of Economic Psychology*, 26(6), 862-883.
- World Bank. (2019). *Innovations in tax compliance* (Policy Research Working Paper No. 9032). <https://openknowledge.worldbank.org/handle/10986/32492>