

Transforming International Taxation in the Digital Economy: A Systematic Literature Review of Digital Services Tax and OECD Pillar One and Pillar Two

Rochma Sudiati¹⁾, Syalu Syaola Kamila²⁾

^{1,2} State University of Jakarta, Indonesia

Email: rochmasudiati@unj.ac.id¹ , syalusyaolakamilaa@gmail.com²

Abstract: *The shift from unilateral Digital Services Taxes (DST) to the OECD's multilateral Pillar One and Pillar Two framework is a major development in international taxation, yet systematic syntheses of this transition remain limited. This study aims to map the academic literature on this transition through a Systematic Literature Review of Scopus-indexed articles following PRISMA guidelines, which yielded eleven eligible articles. The findings show that unilateral DSTs are consistently associated with legal uncertainty and compliance complexity, driving the need for a multilateral solution. Most studies (64%) use qualitative legal and policy analysis, while quantitative evidence on the fiscal impact of both Pillars remains scarce. The discourse is therefore still largely normative. This review offers a literature map for future research and a reference for tax authorities.*

Abstrak: *Transisi dari Pajak Layanan Digital (Digital Services Tax/DST) unilateral menuju konsensus multilateral OECD Pilar Satu dan Pilar Dua merupakan perkembangan penting dalam perpajakan internasional, namun sintesis sistematis atas transisi ini masih terbatas. Penelitian ini bertujuan memetakan literatur akademik mengenai transisi tersebut melalui Systematic Literature Review berbasis Scopus dengan pedoman PRISMA, yang menghasilkan sebelas artikel yang memenuhi syarat. Hasil kajian menunjukkan bahwa DST unilateral secara konsisten dikaitkan dengan ketidakpastian hukum dan kompleksitas kepatuhan, yang mendorong perlunya solusi multilateral. Sebagian besar studi (64%) menggunakan analisis hukum dan kebijakan secara kualitatif, sedangkan bukti kuantitatif tentang dampak fiskal kedua pilar masih langka, sehingga diskursus masih bersifat normatif. Kajian ini menyajikan peta literatur bagi penelitian selanjutnya dan rujukan bagi otoritas pajak.*

Keywords: *Digital Service Tax, OECD Pillar One and Pillar Two, International Taxation*

INTRODUCTION

Digital business models allow companies to access markets without a significant physical presence, challenging the relevance of *permanent establishment* in conventional tax systems (Hak et al., 2025). This has prompted unilateral Digital Services Taxes (DSTs), which risk double taxation, trade tensions, and global tax fragmentation. In response, the OECD proposed the *Two-Pillar Solution*: Pillar One reallocates taxing rights to market jurisdictions, while Pillar Two introduces a 15% global minimum tax through the GloBE rules. Despite agreement among more than 140 jurisdictions, the transition from unilateral DSTs to a multilateral framework remains challenging, particularly for developing countries (Escribano, 2021; Liang, 2024). Studies linking DST effectiveness to this transition remain limited.

Therefore, this study employs a Systematic Literature Review (SLR) to synthesize research on international tax transformation in the digital economy (Linnenluecke et al., 2020).

Research questions How does the academic literature map the effectiveness and limitations of the unilateral implementation of the Digital Service Tax (DST) at the domestic level, thereby driving the need for a transition toward an OECD multilateral consensus? How does the literature describe the impacts, benefits, and challenges of the transition from unilateral DST to the OECD's two-pillar framework, particularly for developing countries?

Research objectives To evaluate the effectiveness of the DST as well as the impacts and challenges of the transition toward the OECD's Pillar One and Pillar Two through a System Literature Review (SLR) method based on Scopus data. And research benefits, To contribute a literature synthesis to research on international tax transformation in the digital economy era. To support regulatory readiness for sustainable OECD pillar implementation.

Digital Service Tax (DST) Sebagai Instrumen Pajak Unilateral

The Digital Services Tax (DST) is a unilateral tax on revenue earned by multinational digital companies within a country's jurisdiction without requiring a physical presence (Wang, 2024). It aims to align their fiscal contributions with the value derived from user data and activities (Listokin, 2025). However, unclear tax coverage, limited taxpayer data access, and legal ambiguity create compliance challenges, as observed in Spain and Russia (Escribano, 2021; Ponomareva, 2023). These complexities highlight the need for internationally coordinated solutions (Hines, 2023; Wang, 2024).

OECD Pillar One and Pillar Two Menuju Konsensus Multilateral

In response to fragmented unilateral DST regimes, the OECD developed the Two-Pillar framework through the Inclusive Framework on BEPS. Pillar One reallocates taxing rights to market jurisdictions through Amount A, while Pillar Two establishes a 15% global minimum tax under the GloBE rules (OECD, 2021, 2025). However its implementation requires countries to align domestic policies and maintain political and technical legitimacy. Regional cooperation is also crucial for strengthening developing countries' bargaining positions

METHOD

The study utilizes the Scopus database, one of the internationally reputable scientific journal indexing institutions in the academic field. The literature search was conducted using the Scopus journal database with the keywords "digital tax," "digital taxation," "digital service tax," "OECD Pillar One," and "OECD Pillar Two," with selected articles limited to those published between 2015 and 2025 to ensure the relevance of the information.

The literature search for this study was conducted using the following search string: TITLE-ABS-KEY (("digital tax*" OR "digital taxation" OR "digital services tax*" OR "digital service tax*" OR "DST" OR "digital economy tax*" OR "taxation of the digital economy") AND ("OECD Pillar One" OR "Pillar One" OR "Pillar 1" OR "Amount A" OR "Amount B" OR "OECD Pillar Two" OR "Pillar Two" OR "Pillar 2" OR "global minimum tax" OR "global minimum corporate tax" OR "GloBE" OR "Global Anti-Base Erosion") AND (LIMIT-TO (DOCTYPE,"ar")) AND (LIMIT-TO (LANGUAGE,"English")) AND (LIMIT-TO (SUBJAREA,"ECON") OR LIMIT-TO (SUBJAREA,"BUSI")) AND (LIMIT-TO (EXACTKEYWORD, "Digital Economy") OR LIMIT-TO (EXACTKEYWORD, "International Taxation") OR LIMIT-TO (EXACTKEYWORD, "Digitalization") OR LIMIT-TO (EXACTKEYWORD, "Tax Reform") OR LIMIT-TO (EXACTKEYWORD, "Tax") OR LIMIT-TO (EXACTKEYWORD, "Pillar One") OR LIMIT-TO (EXACTKEYWORD,"Digital Services Tax") OR LIMIT-TO (EXACTKEYWORD, "Taxation") OR LIMIT-TO (EXACTKEYWORD, "Pillar Two") OR LIMIT-TO (EXACTKEYWORD, "Pillar 2") OR LIMIT-TO (EXACTKEYWORD, "Global Minimum Tax") OR LIMIT-TO (EXACTKEYWORD, "Digital Tax") OR LIMIT-TO (EXACTKEYWORD, "Digital Taxation") OR LIMIT-TO (EXACTKEYWORD, "Digital Taxes")) AND (LIMIT-TO (OA, "all")) AND PUBYEAR > 2014 AND PUBYEAR < 2026. The document search was conducted on August 12, 2026. Figure 1 illustrates the document selection process for this study.

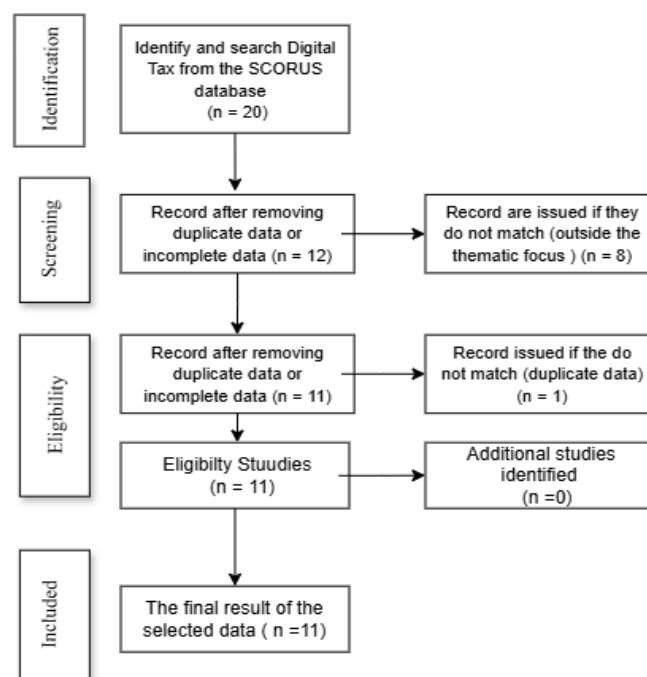


Figure 1. Documents Selection
Figure source: Authors' processing of Scopus search results

The identification stage search in the Scopus database yielded 20 documents. During the screening stage, 8 documents were excluded because they fell outside the thematic focus specifically, they did not substantively address the Digital Services Tax or the OECD Pillar One and Pillar Two frameworks leaving 12 articles for the eligibility stage. One article was eliminated due to issues with its bibliographic metadata. This resulted in 11 final documents that met the criteria and were reviewed based on publication year, journal source, publisher, and relevance to the research problem of this study. In addition VOSviewer software was used to map the co-occurrence relationships of keywords (author keywords) from the 11 selected articles to identify the thematic structure of the literature.

RESULTS AND DISCUSSION

Year of Publication, Journal Publisher

The journal articles analyzed in this study were published within the last six years, with the oldest published in 2020. This indicates that research on the transition of the Digital Service Tax toward the OECD's Pillar One and Pillar Two framework is still relatively new, in line with the implementation of this framework, which has only been underway for the past few years. Figure 2 also illustrates the steadily increasing volume of research, with the highest number of publications expected in 2025, 3 out of 11 articles accounting for 27%. Overall, a significant portion of the relevant studies has emerged in the past three years, specifically between 2023 and 2025. These studies have primarily appeared in journals focused on international tax law and policy.

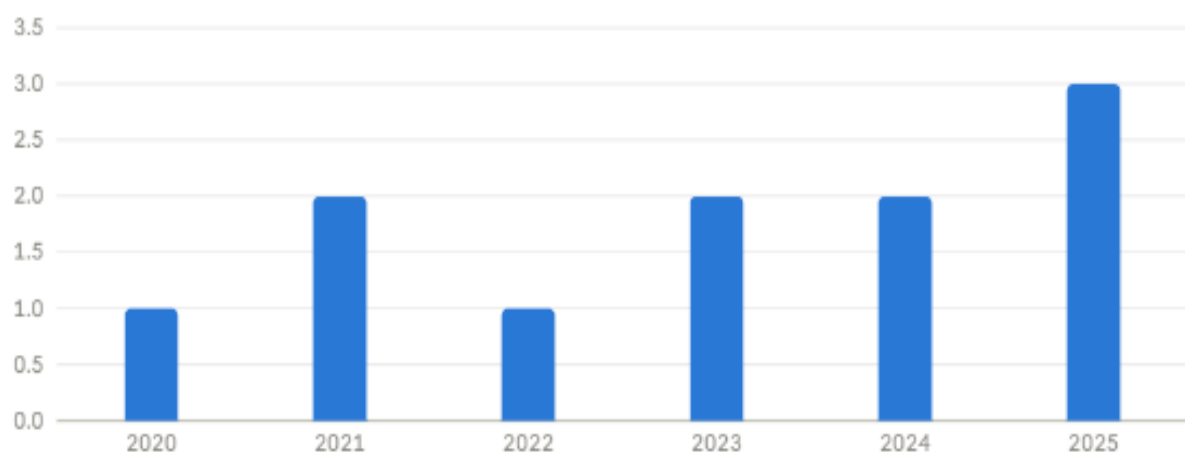


Figure 2. Distribution of Publishers
Figure source: Authors' processing of Scopus data

Journals and Publisher

All documents in this study were published in 8 different journals from 8 different publishers, with Intertax featuring 3 documents and the journal Tax Reform featuring 2 documents. Journal quality is classified based on the Scimago Journal Rank quartiles, ranging from Q1 the top tier with rigorous peer review to Q4, which has a more limited reputation. Based on this classification, 3 of the 11 articles (27%) are in Q1, all from Intertax, which serves as the primary reference for international tax law. Three articles (27%) are in Q2, two articles (18%) in Q3, and three articles (27%) in Q4 the latter group including the Journal of Tax Reform and Public Finance Quarterly, which provide perspectives from developing and transition countries (Russia, Bulgaria), thereby enriching the viewpoints for addressing RQ1. Full details are presented in Table 1.

Table 1. Documents and Publisher Journal Table

Journal Name	Quartile	Publisher
International Tax and Public Finance	Q2	Springer
WSEAS Transactions on Business and Economics	Q4	WSEAS
Journal of Tax Reform	Q3	Ural Federal University
Journal of Tax Reform	Q3	Ural Federal University
Journal of World Investment and Trade	Q2	Brill
Economics	Q2	De Gruyter
Canadian Tax Journal	Q4	Canadian Tax Foundation
Intertax	Q1	Kluwer Law International
Intertax	Q1	Kluwer Law International
Intertax	Q1	Kluwer Law International
Public Finance Quarterly	Q4	Corvinus University of Budapest
International Tax and Public Finance	Q2	Springer
WSEAS Transactions on Business and Economics	Q4	WSEAS
Journal of Tax Reform	Q3	Ural Federal University

Table source: Authors' compilation from Scopus data

Selected Paper

All selected papers highlight legal certainty, policy legitimacy, and market readiness as key challenges in the transition from DSTs to the OECD's Pillar One and Pillar Two. Escribano (2021) highlights legal complexities in domestic DST implementation, reinforcing the need for multilateral solutions. Of 11 articles, 64% use qualitative, 18% quantitative, and 18% conceptual approaches. The dominance of qualitative research indicates limited quantitative evidence on fiscal impacts, representing a research gap for RQ2.

Table 2. Paper on Digital Tax in Developing Countries

Title	Methodology	Country
Tax revenue from Pillar One Amount A: country by country estimates (Barake & Le Pouhaër, 2025)	Quantitative data were collected to estimate cross-country tax revenues under Pillars One and Two (Barake & Le Pouhaër, 2025).	Global (Not Country Specific) (Barake & Le Pouhaër, 2025)
Tax Implications of Business Digitalization in Multinational Enterprises: A Comparative Study of OECD and EU Countries (Hak et al., 2025)	Data was drawn from a qualitative comparative analysis of corporate tax policy proposals (Hak et al., 2025)	OECD and Uni Eropa (Hak et al., 2025)
Minimum Taxation in the United States in the Context of GloBE (Avi-Yonah & Salaimi, 2022)	Data was drawn from a qualitative legal and policy analysis of minimum (Avi-Yonah & Salaimi, 2022)	United States (Avi-Yonah & Salaimi, 2022)
The symbolic significance of digital services tax and its practical consequences (Rigó & Tóth, 2021)	This study applies a conceptual and normative analysis to the taxation of digital services (Rigó & Tóth, 2021)	Global (Not Country Specific) (Rigó & Tóth, 2021)
International Tax Reform in the Digital Economy: Theoretical Framework and Empirical Simulation of Multi-Factor Allocation Systems (Paskaleva & Stoykova, 2025)	This study applies a quantitative simulation methodology to test a four-factor allocation framework (Paskaleva & Stoykova, 2025)	Covering 12 representative jurisdictions (Paskaleva & Stoykova, 2025)
How Can Regional Cooperation Help the Enhancement of Regional Economic Development and Strengthen the Voices of Developing Countries in Global Tax Negotiations? (Paskaleva & Stoykova, 2025)	Data were drawn from mapping and qualitative analysis of regional tax cooperation initiatives (Paskaleva & Stoykova, 2025)	Focusing on developing countries across regions (Paskaleva & Stoykova, 2025)
Day 1 of the Spanish Digital Services Tax: And Now What? A Wave of Tax Policy, Legal Interpretation and Compliance Challenges (Escribano, 2021)	Data was collected based on a qualitative critical legal analysis of (Escribano, 2021)	Spain (Escribano, 2021)
Strategic Narratives in International Tax Policy Making: BEPS Action 1 and the Stability Argument (Plekhanova & Noonan, 2023)	This study applies a qualitative policy narrative analysis (Plekhanova & Noonan, 2023)	Global (Not Country Specific) (Plekhanova & Noonan, 2023)
E-Commerce Taxation in Russia: Problems and Approaches (Polezharova & Krasnobaeva, 2020)	This data was collected based on a qualitative systematic policy analysis (Polezharova & Krasnobaeva, 2020)	Russia (Polezharova & Krasnobaeva, 2020)
The Impact of the Global Minimum Tax Reform on China and Its Countermeasures (Liang, 2024)	This study applies a qualitative policy impact analysis (Liang, 2024)	China (Liang, 2024)

Title	Methodology	Country
The Legitimacy of the OECD’s Work on Pillar Two: An Analysis of the Overconfidence in a ‘Devilish Logic’ (Peters, 2023)	This data is drawn from a conceptual analysis of legitimacy (Peters, 2023)	Global (Peters, 2023)
Tax revenue from Pillar One Amount A: country by country estimates (Peters, 2023)	Quantitative data was collected to estimate tax revenue across countries based on the Pillar One Amount A framework (Peters, 2023).	Global (Not Country-Specific) (Peters, 2023)
Tax Implications of Business Digitalization in Multinational Enterprises: A Comparative Study of OECD and EU Countries (Hak et al., 2025)	Data diambil dari analisis komparatif kualitatif terhadap proposal kebijakan pajak korporasi (Hak et al., 2025)	OECD and the European Union (Hak et al., 2025)
Minimum Taxation in the United States in the Context of GloBE (Avi-Yonah & Salaimi, 2022)	Data was drawn from a qualitative legal and policy analysis of tax regulations minimum (Avi-Yonah & Salaimi, 2022)	United States (Avi-Yonah & Salaimi, 2022)

Table source: Authors’ compilation from the reviewed articles

Determinants of the Transition from DST to Pillar One and Pillar Two. The main determinants identified in this study include:

- Infrastructure Readiness. Strong digital infrastructure, as seen in India and Kenya, supports effective digital tax implementation.
- Government Capacity. Effective tax administration, such as in Brazil, strengthens digital tax implementation.
- Regulatory Fairness and Certainty. Clear and equitable regulations, as in Malaysia, promote compliance with digital tax obligations.

Determinants Based on Theory. Countries must align domestic minimum taxes with Pillar Two, as seen in the U.S. (GILTI and BEAT) and China’s response to the 15% GMT (Barake & Le Pouhaër, 2025).

Self-Developed Framework. The DST transition depends on regulatory certainty, developing countries’ bargaining capacity, OECD legitimacy, and global policy harmonization.

Network Visualization of VOSviewer Analysis

In addition to analyzing publication year, publisher, and methodology, this study conducted bibliometric mapping using the TITLE, ABS, and KEY fields of the 11 reviewed articles in VOSviewer, based on the search string described in the Methodology section (van Eck & Waltman, 2010). Conducted on August 12, 2026, the mapping identifies keyword interrelationships, as shown in Figure 3.

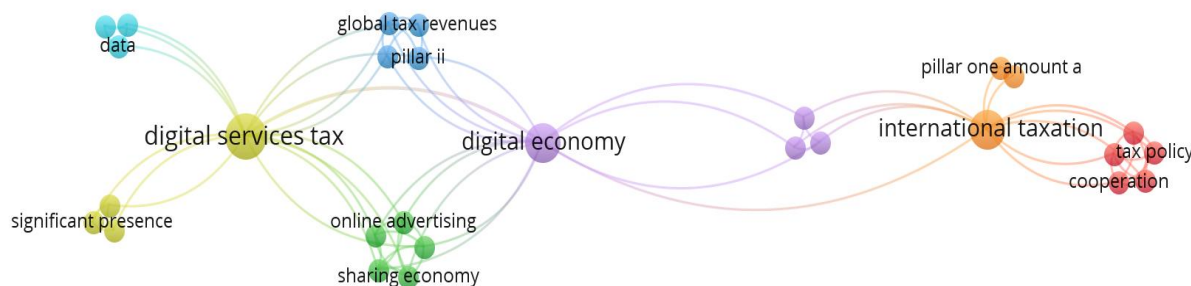


Figure 3. Network Visualization VOSViewer of Research Title Abstract Keyword Co-Occurrence
Figure source: VOSviewer analysis by the authors

The VOSviewer network visualization reveals an interconnected keyword structure, indicating relationships among the main concepts identified in the reviewed literature (McAllister et al., 2022), “digital economy,” and “international taxation” as central nodes linking the main thematic clusters. The yellow cluster focuses on DST implementation, including data and “significant presence.” The green and blue clusters highlight digital business models, such as online advertising and the sharing economy, alongside global tax revenues and Pillar II. The orange and red clusters connect international taxation with Pillar One Amount A, tax policy, and cooperation. Overall, the mapping identifies three interconnected themes: DST characteristics, digital economy business models, and multilateral cooperation toward Pillar One and Pillar Two.

CONCLUSION

A systematic review of 11 articles shows that the transition from unilateral DSTs to the OECD’s Pillar One and Pillar Two is shaped by legal certainty, institutional readiness, and multilateral legitimacy. While DSTs may support short-term revenue, cases in Spain and Russia highlight legal uncertainties requiring international solutions. The transition toward the OECD framework depends on domestic regulatory certainty, collective negotiations among developing countries, consensus legitimacy, OECD policy credibility, and harmonization with global standards. The predominance of qualitative studies (64%) indicates limited quantitative evidence on fiscal impacts. Theoretically, this study contributes to the literature on international tax transformation, while practically providing insights for policymakers, particularly in developing countries, to assess regulatory readiness and strengthen quantitative evidence on the revenue impacts of Pillar One and Pillar Two.

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