

# THE ISSUE OF E-COMMERCE AND DIGITAL SERVICE TAXATION IN THE DATA-DRIVEN ECONOMY

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**How to Cite in APA format:** Anh, N. L. & Thao, D. T. (2025). THE ISSUE OF E-COMMERCE AND DIGITAL SERVICE TAXATION IN THE DATA-DRIVEN ECONOMY. *IRASS Journal of Economics and Business Management*. 2(11),1-5.

## Introduction

E-commerce taxation has become a crucial element of global economic policy, governance, and trade. As technological advancements continue to reshape the business transaction landscape, tax frameworks face profound challenges and opportunities. This introduction provides a comprehensive overview that includes general explanations, specific delineations, common phenomena, related research, and the overarching objectives of e-commerce taxation.

Taxation is a fundamental pillar of modern economies, serving as the main instrument through which governments generate revenue to fund public services and infrastructure development. Traditional tax mechanisms were primarily designed to regulate transactions within physical territorial boundaries. However, the emergence of e-commerce, characterized by digital platforms facilitating international transactions—has significantly disrupted these conventional frameworks. Unlike traditional brick-and-mortar enterprises, online businesses often operate in jurisdictions different from their customer bases, creating complex challenges in tax assessment, collection, and enforcement.

## Overview of E-Commerce Taxation

The rise of e-commerce platforms has triggered a paradigm shift in consumer behavior, business models, and market dynamics. The exponential growth of online retail, digital services, and cross-border transactions has reshaped the global economic landscape, transcending traditional boundaries and jurisdictions. Simultaneously, the disparity between the pace of technological innovation and the adaptability of tax regulations has created a persistent imbalance, fostering an environment ripe for tax avoidance and regulatory ambiguity. This phenomenon underscores the urgency for policymakers and tax authorities to

formulate adaptive strategies capable of harmonizing tax regimes with the evolving nature of digital commerce.

Notably, research efforts have emphasized the symbiotic relationship between taxation, e-commerce development, and economic growth, highlighting the necessity of balanced fiscal policies that foster innovation, entrepreneurship, and sustainable development. The taxation of e-commerce presents a range of challenges and opportunities. Terada-Hagiwara (2019) underscores the need for global solutions to address base erosion and profit shifting (BEPS).

### The Concept of Digital Economy Taxation

The conceptual framework of e-commerce taxation, situated at the critical intersection of digital commerce and fiscal policy continues to evolve in response to emerging challenges and opportunities. Recent studies have emphasized the need for a nuanced understanding of e-commerce taxation, highlighting the necessity of adapting traditional tax principles to the unique dynamics of digital transactions. Scholars argue that redefining tax frameworks is essential to ensure their relevance and effectiveness in the technological era.

Contemporary researchers have echoed this view by underscoring the difficulties in determining jurisdictional boundaries, identifying taxable entities, and classifying digital goods and services within rigid legal frameworks (Jones, 2023). Furthermore, theoretical constructs such as the destination principle and the concept of digital permanent establishment offer valuable insights into addressing cross-border taxation challenges in the digital economy (OECD, 2020; Devereux et al., 2019).

The destination principle has gained prominence as a guiding standard for taxing digital transactions, under which taxes are levied based on the consumer's location rather than that of the

seller (European Commission, 2021). This strategy reflects the shift toward a consumption-based economy driven by e-commerce and aligns with the fundamental rationale of taxing consumption rather than production.

Recent empirical studies have shed light on the effectiveness of various tax policy interventions in taxing e-commerce. Li et al. (2023) examined the impact of digital services taxes (DSTs) on revenue generation and economic welfare, highlighting the trade-off between government revenue objectives and consumer welfare considerations.

### ***Overview of E-Commerce***

Over the years, e-commerce has been understood in various ways, primarily due to the development of economic activities and the Internet. Compared with the digital economy, e-commerce is not limited by time or geographical distance. The transformation of the economy has also led to tax adjustments. Alfandia (2020) defines e-commerce as a form of transaction involving goods and services conducted through the Internet, aimed at facilitating the exchange of information for buying and/or selling and making payment transactions more accessible to most people.

Through the Internet, the relationship of services and exchange of goods connects bidders and potential buyers, evolving from the initial input of offers toward formal agreements and delivery or supply activities. Shin et al. (2019) provide another description of e-commerce, specifically: “E-commerce is the integration of email, electronic funds transfer, electronic data interchange, and other similar techniques into a comprehensive electronic system of economic functions.” At the European level, e-commerce is also defined in a way similar to the OECD definition as “the purchase or sale of goods or services between businesses, households, individuals, or private organizations through electronic transactions over the Internet or via other computer-mediated communication networks (online)” (EUROSTAT, 2021).

One of the processes shaping the digital economy is the transfer of various types of socio-economic activities that use information technology into the electronic Internet environment such as e-commerce, e-business, e-learning, e-communication, and e-government. The modern achievements recognized in transforming the global information and communication environment through technology and the Internet have led to the formation of a global electronic environment that fosters numerous types of economic activities while opening new opportunities for financial, organizational, and institutional design in existing fields of business, science, and socio-economic operations.

The complex nature of digital transactions, involving multiple stakeholders across different territories, has created significant challenges in determining appropriate tax jurisdictions and allocating taxing rights among nations (Turina, 2020). These challenges are further exacerbated by the rapid pace of technological advancement and the emergence of new digital business models.

## **Legal Framework for Taxation in E-Commerce Activities**

### ***International Tax Guidelines, Standards, and Regional/National Approaches***

The evolution of international tax guidance has been marked by significant efforts to address the challenges posed by the digital economy. The OECD’s Base Erosion and Profit Shifting (BEPS) framework represents a cornerstone of international efforts to modernize tax systems (Bessenger, 2019). The BEPS framework, encompassing over 135 countries, has played a vital role in developing new international tax standards and guidelines (Christians, 2016). These efforts have led to substantial proposals for reforming international taxation principles, including new nexus rules and profit allocation mechanisms specifically designed for the digital economy.

Different regions and countries have adopted diverse approaches to digital taxation, resulting in a complex mosaic of legal frameworks. The European Union (EU) has been particularly active in developing comprehensive digital tax policies, proposing both interim and long-term solutions (Igbinenikaro & Adewusi, 2024). Individual countries have implemented unilateral measures such as the UK Digital Services Tax (DST) and France’s *taxe sur les services numériques* (Sábo, 2020). While these national initiatives address immediate revenue concerns, they have also created challenges for coordination and harmonization of international tax policies.

### ***Legal Framework for E-Commerce Taxation in Vietnam***

The Law No. 56/2024/QH15, enacted on November 29, 2024, introduces significant innovations concerning taxation in e-commerce. The new law highlights two major breakthroughs:

- Foreign suppliers without a physical business presence in Vietnam must directly or through an authorized representative register, declare, and pay taxes. This provision closes the previous “legal loophole” regarding cross-border digital services. In the past, major tech corporations such as Google, Meta (Facebook), Netflix, and Apple had no permanent establishments in Vietnam, making tax collection nearly impossible. Despite generating billions of VND in revenue from Vietnam, these companies contributed little to national tax revenue. The new regulation provides a direct legal mechanism to tax these technology “giants,” preventing capital outflows that escape state control. Vietnam thereby affirms its right to tax economic activities arising within its territory, regardless of physical presence—a global trend in the digital economy era.
- From April 1, 2025, e-commerce platforms and digital platforms with payment functions will be required to withhold and remit taxes on behalf of individual and household businesses operating on their platforms. This shifts the burden of tax declaration and payment from millions of small, hard-to-monitor online sellers to a limited number of e-commerce and payment platforms (e.g., Shopee, Lazada, Tiki), which are easier to regulate and possess comprehensive transaction data. This measure resolves long-standing issues in tracking and auditing online sellers. By designating these platforms as “extended arms” of tax authorities, the state leverages digital infrastructure and data for more efficient tax administration. Instead of managing millions of taxpayers, authorities now oversee only a few hundred platforms. This reform compels e-commerce activities to

become more formalized and transparent, reducing the scale of the “shadow economy” in cyberspace.

## The Impact of Taxation on E-Commerce

### *Challenges in Implementing E-Commerce Tax Policies*

E-commerce taxation faces numerous challenges arising from the borderless nature of digital transactions and the proliferation of online platforms. Baldwin and Wyplosz (2021) highlight the complexities of determining tax jurisdiction and ensuring compliance without physical presence. The continual evolution of digital business models—often operating across multiple jurisdictions and transcending traditional geographical boundaries further complicates the situation.

The intangible nature of digital assets makes their valuation and classification for tax purposes increasingly difficult, adding to administrative burdens and compliance costs for both taxpayers and tax authorities (Goolsbee, 2022). Recent studies emphasize the challenges of establishing a clear tax nexus for digital enterprises that often lack substantial physical presence in the jurisdictions where they operate. The OECD’s Inclusive Framework on BEPS (2021) has sought to address these issues by proposing new profit allocation and nexus rules to better capture the value generated by digital activities. However, the implementation of these rules remains contentious and complex, as reflected in ongoing negotiations and varying levels of adoption among countries (KPMG, 2023).

Furthermore, the classification of digital goods and services for tax purposes remains a matter of debate. The intangible nature of digital assets means that traditional classification and valuation methods based on physical characteristics and location are often inadequate. This has led to significant discrepancies in how different jurisdictions approach digital taxation, creating inconsistencies and opportunities for tax avoidance (European Commission, 2022). For instance, some countries have introduced Digital Services Taxes (DSTs) targeting revenues from specific digital activities, while others rely on existing Value-Added Tax (VAT) frameworks to capture digital transactions (PwC, 2023).

Tax evasion and regulatory arbitrage pose major challenges to tax collection and fiscal integrity in the digital era. Digital platforms can swiftly shift profits to low-tax jurisdictions through transfer pricing and other mechanisms, undermining the tax bases of higher-tax countries (Eden & Teece, 2020). This issue is further exacerbated by the use of cryptocurrencies and other digital assets, which complicate monitoring and enforcement. The anonymity and decentralization of cryptocurrencies present significant obstacles for tax authorities attempting to enforce compliance and prevent tax evasion (EY, 2023).

### *The Impact of E-Commerce Taxation on Business Activities*

Advancements in data analytics, artificial intelligence (AI), and blockchain technology have enabled tax authorities to enhance compliance monitoring, detect tax evasion, and streamline tax collection processes (PwC, 2023). However, the rapid pace of technological innovation also presents challenges in adapting legal frameworks and protecting taxpayers’ data privacy and security (Deloitte, 2023). The evolving landscape of e-commerce taxation requires continuous adaptation and innovation in tax policy and administration. By integrating insights from recent research

findings and theoretical advancements, policymakers can navigate the complexities of e-commerce taxation more effectively, ensuring a fair and sustainable tax regime that promotes economic growth and digital innovation.

Combating tax evasion in the digital age demands robust international cooperation and harmonized policies. Tax evasion and regulatory arbitrage are particularly evident in e-commerce, where multinational corporations can exploit discrepancies in national tax laws to minimize their tax liabilities. Eden and Teece (2020) argue that digital enterprises often engage in Base Erosion and Profit Shifting (BEPS) by transferring profits to low-tax jurisdictions while minimizing tax exposure in higher-tax countries. This practice erodes the tax bases of countries where significant economic activities occur, undermining fiscal integrity and fairness.

## Solutions for Improving the Legal Framework for E-Commerce and Digital Service Taxation

### *International Cooperation in Addressing Tax Challenges in E-Commerce and Digital Services*

Recent research underscores the need for international cooperation and harmonized tax policies to effectively address these challenges. The OECD’s Pillar One and Pillar Two proposals aim to ensure that multinational enterprises pay their fair share of taxes within jurisdictions where they operate, regardless of physical presence (OECD, 2021). Pillar One focuses on reallocating profits to market jurisdictions, while Pillar Two seeks to establish a global minimum tax rate to curb base erosion and profit shifting (Deloitte, 2022). These initiatives represent major strides toward addressing taxation challenges posed by the digital economy; however, their success depends on broad international consensus and practical implementation (IMF, 2023).

Moreover, technological advancements bring both challenges and opportunities for tax administration. The use of big data analytics, AI, and blockchain can strengthen tax authorities’ ability to monitor transactions, detect evasion, and improve compliance. For instance, blockchain technology can provide transparent and immutable digital transaction records, reducing opportunities for fraud and tax evasion (EY, 2023). Nevertheless, these technologies also introduce new risks and require substantial investments in infrastructure and human capital to be effectively utilized (PwC, 2023).

International organizations and agreements play a crucial role in facilitating a harmonized approach to e-commerce taxation. The OECD, IMF, and World Bank continue to advocate for coordinated and comprehensive tax reforms to address the unique challenges posed by digitalization (IMF, 2023). Their efforts focus on developing consensus-based solutions that balance the interests of developed and developing nations, ensuring that the benefits of digital taxation are distributed equitably.

Global initiatives to harmonize tax policies and adopt best practices are essential to tackling e-commerce taxation challenges. The OECD’s Pillar One and Pillar Two frameworks aim to ensure a fair allocation of taxing rights and establish a corresponding global minimum tax rate (OECD, 2021). These measures are designed to prevent profit shifting and base erosion by multinational corporations, ensuring that digital enterprises pay appropriate taxes within relevant jurisdictions. The successful

implementation of these frameworks requires close international collaboration and alignment of domestic tax policies with global standards (IMF, 2023).

### **Technological Solutions**

In addition, data analytics and artificial intelligence (AI) in tax administration have been shown to improve the accuracy of tax assessments and increase the efficiency of audit operations (EY, 2022). Blockchain technology also offers promising applications, providing transparent and immutable transaction records that can reduce opportunities for fraud and enhance trust in the tax system. According to EY (2022), blockchain can improve the accuracy and reliability of tax reporting, making it easier for tax authorities to verify transactions and ensure compliance.

The effectiveness of Digital Services Tax (DST) has been explored further in recent studies. Li et al. (2023) found that jurisdictions implementing DSTs have reported increased tax revenues from digital enterprises, although these measures also pose administrative and compliance cost challenges. The research suggests that while DSTs can effectively capture value from digital activities, their design and implementation must consider the broader economic context and potential unintended consequences (Li et al., 2023).

### **Capacity Building and Knowledge Sharing Among Tax Authorities**

Studies show that countries adopting digital tax solutions have achieved significant improvements in tax compliance and revenue collection. They also highlight that integrating digital technologies can reduce administrative costs and enhance the overall efficiency of tax systems.

Beyond technological and policy innovations, there is growing recognition of the need for capacity building and knowledge sharing among tax authorities. The IMF (2023) emphasizes the importance of providing training and technical assistance to tax administrations in developing countries to help them effectively adopt and implement digital tax solutions. This includes investing in infrastructure, strengthening data analytics capabilities, and developing robust legal frameworks to support the digital transformation of tax systems.

Furthermore, recent studies emphasize the importance of stakeholder engagement in the design and implementation of digital tax policies. Engaging businesses, industry associations, and civil society organizations can help ensure that tax policies are fair, transparent, and effective in capturing the value generated by digital activities. Such collaborative approaches also help build trust and compliance among taxpayers, reduce resistance to new tax measures, and foster a culture of voluntary compliance (OECD, 2022).

### **Stakeholder Participation in Tax Policy Design and Administration**

The participation of stakeholders is essential in developing effective e-commerce tax policies. Collaboration with businesses, industry groups, and civil society organizations helps ensure that tax measures are equitable, transparent, and practical. The European Commission's consultations on digital taxation illustrate the benefits of such engagement, as input from multiple stakeholders has informed the design of tax measures that more

accurately reflect the realities of the digital economy (European Commission, 2023).

## **Conclusion**

The evolving legal landscape requires policymakers to continuously adapt to keep pace with technological advancements and business innovation. Jurisdictions that have adopted proactive approaches such as real-time reporting and electronic invoicing have experienced improvements in compliance and revenue collection (OECD, 2022). These initiatives highlight the potential benefits of integrating digital solutions into tax administration while also emphasizing the need for harmonized standards and strong data protection measures (Deloitte, 2023).

E-commerce taxation represents a complex and dynamic field that demands continuous adaptation and innovation in both policy and practice. By integrating insights from recent research and technological advancements, policymakers can better navigate the challenges of taxing digital transactions, ensuring that tax systems remain fair, efficient, and capable of supporting sustainable economic growth in the digital age.

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