

	<p>Science, Education and Innovations in the Context of Modern Problems Issue 2, Vol. 9, 2026</p> <p>RESEARCH ARTICLE </p> <h2>Taxation in the Era of Digital Transformation: Legal Opportunities and Regulatory Challenges</h2>	
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<p>Abstract The accelerating pace of digital transformation is fundamentally reshaping economic activity, governance structures, and public finance systems worldwide, placing unprecedented pressure on traditional tax frameworks. This article examines the legal implications of digitalization for contemporary tax systems, with a particular focus on the opportunities digital transformation offers for enhancing tax efficiency, transparency, and compliance, alongside the regulatory and institutional challenges it introduces. Drawing on comparative legal analysis, international tax policy developments, and empirical insights from digital tax administration reforms, the study explores how digital technologies—such as big data analytics, automated reporting systems, blockchain, and artificial intelligence—are redefining tax governance. At the same time, it highlights critical legal risks related to data protection, cybersecurity, jurisdictional uncertainty, profit allocation, and the taxation of cross-border digital services. The paper concludes that the successful digital transformation of tax systems requires comprehensive legal reform, strengthened institutional capacity, and sustained international coordination to ensure fairness, effectiveness, and fiscal sustainability in the digital economy.</p>		
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1. Introduction

The rapid pace of digital transformation reshapes economies and societies but poses distinct challenges to tax systems worldwide. Existing international tax treaties and domestic legislation, designed with traditional businesses in mind, struggle to address the activities of large multinational enterprises that operate solely within the digital economy. Despite

their significant economic presence in many jurisdictions, these groups often incur limited or no tax liability in host countries. Consequently, governments must either reform tax systems to adapt to changing business models or risk losing maximal available revenue when the business landscape shifts permanently or moves toward the digital economy. Digitalisation also enhances the business and organisational models of revenue authorities and taxpayers themselves. Digital transformation facilitates enhancement of tax policy analysis, reduces costs of compliance, enables collection of transaction data with little taxpayer burden, supports policy simulations to illustrate wider impacts of proposed tax changes, allows measurement of relative impact of alternative policy options, and promotes global cooperation and coordination in pursuit of national objectives. Tax policy and administration, however, remain embedded in established legislation and regulation. Instead of simply pursuing opportunities, stakeholders must urgently consider legal challenges that directly threaten tax revenue (AJ & S, 2018).

2. Conceptual Framework of Digital Transformation in Tax Law

Digital transformation is a complex societal and technological phenomenon driven by increasing computing power, connectivity, and data availability. A universally accepted definition remains elusive, but digital transformation can be framed as a process that uses digital technologies in new ways to create or modify existing processes, activities, products, or services, with the potential to alter a company's fundamental business model (Harpaz, 2021). The OECD describes digital transformation as a pervasive and intense shift accompanied by profound socio-economic changes and the emergence of new risks, changing both how physical and digital assets are produced, distributed, and consumed. Digital transformation reconfigures the relationship between people and machines, creating enormous amounts of data that spur further technology development, fuel artificial intelligence, and transfer value across geographical, societal and disciplinary boundaries.

Tax systems around the globe rely on principles developed during the industrial age, but digital technologies are shifting production and consumption patterns to the extent that these principles become inappropriate, raising the risk of systemic erosion of tax bases and entrenchment of inequitable tax systems. Digital transformation presents legal opportunities for governments and tax authorities seeking to enhance administration, improve taxpayer interaction, or reform and modernize regulations. Enhanced transaction analysis, improved information-sharing, advanced analytics, and predictive modelling are among the technology-driven mechanisms through which information and insight-rich data can be collected, accumulated, processed, stored, shared and made accessible to taxpayers and tax agents at the right time (AJ & S, 2018).

3. Legal Opportunities Emerging from Digital Transformation

Digital transformation presents promising possibilities for tax administration, policy development, and international cooperation. Tax collection in many jurisdictions remains rife with avoidable error, fraud, and evasive behaviour, *dus vultus munere, miratione*. Jurisdictions already harnessing big data for economic measurement attest to the prospect of similarly leveraging this information for tax design. International cooperation on tax compliance could yield greater insights into emerging digital business models while safeguarding taxpayer rights. Technologies such as blockchain and smart contracts could equally empower governments to collect tax and monitor compliance (AJ & S, 2018).

Digital transformation promises to enhance tax administration and compliance by harnessing the flood of information generated by digital activities. Tax systems increasingly depend on accurate measurements of economic transactions, the ability to keep pace with new business models, and the capacity for timely, secure sharing of sensitive information and anonymised data among government agencies and other stakeholders. By correlating tax remittance with government-provided goods and services, jurisdictions can use tax remittance patterns to effectively measure economic activity and design efficient tax policy.

Meaningful tax policy reform presupposes knowledge of the economy's size and configuration. Frameworks such as the Inter-Country Input-Output Database and the System of National Accounts provide valuable insights, but these macroeconomic models are inevitably incomplete and unable to capture intra-country arrangements. Thanks in part to

the prevalence of globalisation and digitalisation, the tax compliance burden of machines with little or no human interaction has increased, leading transactions with no human counterpart to be reported or, if they are, misclassified.

Transparency on real-time tax payment could likewise aid revenue collection and ensure compliance with simultaneous remittances. Numerous developing and emerging economies lack income or corporate tax, and compliance is a challenge where such taxes exist. Affordable access to collation insights of taxpayers' financial data from banks, transactions, Carbon footprint, trade, and imports could assist in decision-making. Insufficient data availability force agencies to engage in costly information extraction through large-scale surveys, yet no-reporting or delayed-reporting entities still escape scrutiny or are targeted at inappropriate times during economic fluctuation.

3.1. Enhanced Tax Administration and Compliance

As digital transformation accelerates in many sectors of society, taxation administration and compliance are substantially improved. Innovative approaches, tools, and methods can be integrated in tax policy design and the financial report of businesses, which enhance accuracy and avoid time-consuming tasks. These technologies also help government agencies formulate reasonable and data-driven tax rules. The digital era enables tax policies to shift from the ex-post to the ex-ante phase. With no contact with taxpayers, intelligent tax systems analyze data from entire industries and propose reasonable tax policies. For developing countries, a beneficial ex-ante tax policy can be recommended without knowing specific corporate tax numbers. Digital transformation solutions are adopting smart technology to reduce businesses' compliance costs. Information can flow freely from companies' accounting systems to tax-reporting tools automatically. Such access to data and the ability to analyze large datasets allow tax authorities to develop policies informed by evidence, provide businesses with risk analysis and guidance, and use model-based policy simulation (AJ & S, 2018).

Nevertheless, the growing dependence on digital systems generates privacy concerns, requires a legally sound implementation, and incentivizes businesses to conduct tax planning activities during the configuration phase of the intelligent tax system. Once the automation system is enabled, every tax-compliance need is automatically handled by the machine. Even without software tools, the Great Singapore Sale at year-end is a common time for retailers to run structural income tax planning (Mazur & Azam, 2019).

3.2. Data-Driven Tax Policy and Empirical Analysis

Analyses of tax policy based on detailed evidence and quantitative data are a crucial foundation for effective and socially accepted policy planning. Digital transformation offers significant opportunities for this type of data-driven tax policy and empirical analysis. Tax policy analysis has become a focus of growing political interest, observed both in Europe and across the world. Notably, most political parties that pursue tax policy change require extensive evidence-based analysis of the expected revenue and three other key dimensions: fairness of the tax, efficiency of mitigation of undesirable external effect, and keeping an international competitive edge.

In Europe, the three-dimensional approach to tax policy analysis has emerged as a necessary basis for policy discussion and agreement, where a common framework is indispensable for facilitating a shared and evolving unanimous policy consensus across Europe. The generation and examination of the necessary evidence to support three-dimensional policy analysis constituted a major intersection of contemporary digital transformation and tax policy. Contemporary evidence relevant to tax policy analysis at the three-dimensional level is both plentiful and versatile, with much available free, open-source, and easily adaptable to country-specific analytical models. Detailed evidence relating to both statutory taxes and transfer price-related tax positions is readily accessible. A large set of freely available, entrepreneur-friendly European business-observation links further enriches the relevant economic, socio-economic, and institutional datasets available for tax policy analysis. An operational framework for collecting and assembling even the most complex triple-dimension datasets in a digital-compatible form has been developed, enabling efficient processing in digitalised environments by expansive multi-dimensional data management software now widely used in the public sector. Consequently, the precise examination of the wealth, growth, and tax bases of digital enterprises is supported, expanding

the range of integrated policy analyses to encompass those involving tax policy measures specific to the digital economy (Fjord Kjærsgaard & Koerver Schmidt, 2018).

3.3. International Tax Cooperation and Digital Services

Digital transformation significantly impacts the International tax system and international tax cooperation through the ability of businesses to provide services to customers without a physical presence in a jurisdiction. The degree of digitalization raises the question of whether digital services constitute cross-border services, thus influencing the tax treatment of these services regarding the international framework.

Digitalization allows businesses to deliver services without a physical presence in many cases. These businesses typically have no presence in the jurisdiction where services are provided. The absence of a physical presence poses challenges in determining whether such transactions are cross-border services to be taxed according to the international tax framework. Notably, the 1927 Model Tax Convention established the principle of taxing business income where that income accrued. Such income does not accrue in the jurisdiction where the service is provided without a permanent establishment. The digital economy currently discussed does not encompass all digital services delivered without a digital intermediary. Therefore, awareness of tax jurisdictions is crucial for customers and taxpayers who procure digital services that lack a physical presence and secure access through a digital intermediary (Harpaz, 2021).

4. Legal Challenges and Risks Posed by Digital Transformation

The digital economy has fundamentally changed how business is conducted, with particular regard to the nexus between physical presence and taxation. Tax jurisdiction, source rules, and profit allocation have to be reexamined in light of the global digital economy. Tax administrations have to deal with tax evasion cases enabled by the digital economy and with major economic players enjoying market power due to digitalization (AJ & S, 2018). The potential use of online platforms presents tax risks to many jurisdictions, and digital-based businesses do not typically have a physical presence there.

A large proportion of international trade previously was in products, services, and intangibles that were subject to tariffs and similar taxes. With the fast growth of digital products and services, governments have more difficulty taxing international trade, thus speeding up the pressure for a new taxation model more suitable for the present day (Mazur & Azam, 2019). Long-standing principles that seek to allocate rights to tax cross-border income, especially from extractive resources, have become irrelevant because virtually all of the bigger digital-based companies with major market power are software, platform, or service-based entities that have little or no physical presence (Harpaz, 2021).

4.1. Tax Jurisdiction and Source Rules in a Digital Economy

Tax systems reflect and grow with society. Yet the tax policies and practices currently in use date largely back to the early 20th century. They were drafted to meet the perceived challenges of that time; every legacy of that earlier time was carried forward, whether or not it remained relevant in today's digital economy. For example, contemporary international tax principles originated either in 1928 or were explicitly grounded in the realities of that earlier economy. An entirely new paradigm has emerged since then, however, the prevailing international tax conventions have not yet caught up with it. During that earlier time period, widely accepted definitions of taxable presence in a given jurisdiction reflected such attributes as the physical pace of doing business, real property, equipment or remuneration paid to a single employee. Today, however, "digitalized" enterprises can engage in widespread economic activity without any fixed presence at all. Undertaking such activities appears to be consistent with the persistent physical presence notwithstanding the fact that, for example, thousands of Uber, Airbnb or Facebook transactions may have been conducted in a single jurisdiction. Yet no permanent establishment exists. Therefore scheduling and taxing such cross border income has proven difficult. Abundant free services make any pricing for a transaction entirely arbitrary. Such services exist only because masses of consumer information have been transferred to the enterprise. Whether such data transfers constitute a money's worth service to qualify as taxable remains open. To date such digitalized enterprises are often still regarded as basing in their own jurisdiction (Harpaz, 2021).

4.2. Profit Allocation and nexus in a Digital World

Digital transformation challenges conventional principles of international taxation, particularly the link between physical presence and permanent establishment. Only equipment in a country gives rise to a permanent establishment for corporate tax, while a physical maintained office is typically needed to impose an income tax liability. Highly digitalized businesses operate without fixed physical presence, complicating tax collection. The existing framework was designed for traditional brick-and-mortar businesses. Digitalized businesses provide digital services globally, where profit attribution and tax jurisdiction become increasingly difficult to determine (Harpaz, 2021).

Geographical profit allocation is a significant pillar of global tax governance. The discussion emphasizes that emerging taxation frameworks underpin network effects and market access, where users contribute to value creation. The OECD has undertaken extensive deliberations, providing proposals and qualitative analyses on the adaptation of international taxation to new business models. Approaches under consideration include modified residual profit split, fractional apportionment, and distribution-based methods for allocating profits to market or user jurisdictions. Under modified residual profit split, residual profits are allocated to markets through the cap on fixed remuneration. Under fractional apportionment, the business line will be determined and a share is allocated to user or audience jurisdictions based on relevant factors. Distribution-based methods involve allocating profits through predefined distribution keys and indicators, such as advertising expenditure and user participation as proxies for value generation (Chand et al., 2020).

4.3. Tax Evasion, Market Power, and Digital Platforms

In the past decade a large number of studies have been initiated that examine the taxation of the digital economy and of multinational enterprises (MNEs) whose business models are profoundly affected by the digital transformation. Such studies have highlighted a preoccupation with market-power taxation or the taxation of large corporate profits. Digital platforms such as Uber and Airbnb have also raised fundamental questions concerning the definition and scope of tax objects and business profits (Harpaz, 2021). Digital actors are also seen as responsible for tax evasion through base erosion and profit shifting (BEPS) arrangements, for example by routing profits from large-scale revenue-generating activities through low-tax foreign jurisdictions aided by various supply-chain constructs (Fjord Kjærsgaard & Koerver Schmidt, 2018).

5. Regulatory Responses and Reform Proposals

National tax systems are under strain due to the growing digitalization of the economy. Multinational enterprises (MNEs) are actively engaging in corporate tax planning that, through double non-taxation, reduces effective tax rates to significantly below statutory levels. This creates tension between governments pushing for significant tax reforms steeped in economic and political realities and the fundamental precepts surrounding voluntary compliance (Harpaz, 2021).

A primary aim of national tax systems is the redistribution of income, wealth, and opportunities. A high degree of digitalization within the economy poses challenges to effective and fair implementation of that goal. Digitalized economic activities are easier to disguise from tax authorities. Moreover, many digitalized business models, exemplified by social media platforms, deliver significantly disproportionate amounts of advertised activity compared with the income generated from that advertising. Governments thus face increasing pressure to implement significant reforms rooted in long-established international tax principles. These principles are increasingly incompatible with an economy in which digitalized interaction is a primary business model.

Regulatory responses have taken the form of (i) domestic tax reform proposals emphasising high levels of tax on digitalized activity and (ii) international multilateral tax reform proposals seeking additional taxation (AJ & S, 2018). Key requirements for successful reform are unaffected by the focus on the digitalized economy. General conditions apply to the taxation of income from activities across different jurisdictions. Many business models, whether digitalized or traditional, manufacture goods, enhance services, and process payments, and public information remains available to facilitate proposal implementation.

5.1. Domestic legal reforms

The necessity for domestic legal reforms is illustrated by Israel as it initiates the process of establishing a permanent digital service tax through the budget law for 2022. The proposed law seeks to provide a clearer legal foundation for the collection of the newly introduced digital service tax, despite the current government being opposed to such a measure. The proposed legal framework offers guidelines for the taxation of non-residents providing digital services, presenting a unique opportunity to streamline the applicable legislation concerning the taxation of non-residents and digital services (Harpaz, 2021). Moreover, alongside the existing experimental imposition of a digital service tax based on user engagement, a notable effort is underway to develop the “First APP” system (AJ & S, 2018). This initiative aims to encourage captive non-resident clients to transmit information on collective onboarding, enhancing data acquisition, analysis, and modeling for corporations and governments. Through the transmission of digital service invoices and bank statements, the aspiration is to reach intelligent automated status within this sector.

5.2. International initiatives and the role of the OECD and UN

Digital technologies and globalisation are transforming the global economy and society, reshaping the notion of physical and digital presence and reconfiguring cross-border interactions and transactions. This unprecedented transformation, termed digital transformation by the OECD, refers to the profound and rapid changes to daily life across the globe as economies become more information-based with social and economic aspects increasingly mediated through digital channels and technologies (Harpaz, 2021). The digital transformation of the economy and society has enhanced opportunities for simultaneous, ubiquitous, low-cost communication and interaction among individuals and organisations across boundaries, ultimately reconstituting the way services and products are created, delivered, and consumed. The pandemic has accelerated this transformation, which in recent years has generated the exponential growth of digital platforms. Digitalisation has contributed to economic growth and has provided significant opportunities but simultaneously has created new legal challenges and risks, particularly to tax law, which is struggling to adapt to the transformation.

International initiatives play an important role to tackle these complex legal challenges and risks. As digital transformation creates huge uncertainties around compliance and the implementation of tax policy and generates material legal risks requiring urgent response by tax administrations, global uncertainty encourages collective actions to mitigate the adverse effects of such complexity. The Organisation for Economic Co-operation and Development (OECD) and the United Nations (UN) are two prominent governance modalities for international cooperation to provide a multilateral basis for collaborative policy coordination, economic cooperation and information sharing, and policy dialogue to help countries mitigate the adverse consequences of such critical policy risks. The OECD undertakes economic surveys, country consultations, regulatory reviews, Environmental Policy Reviews, and Public Governance Reviews; knowledge-sharing targeted policies and supplementary reports for five initiatives. Digital transformation poses significant policy and design complications in developing appropriate tax policy across jurisdictions and facilitates inter-jurisdictional information flow which will help countries have a better understanding of measures and assessment of the risks with respect to policy alternatives and their implementation. The OECD-G20 Base Erosion and Profit Shifting (BEPS) Project represents one of the most ambitious efforts to restore the stability and security of the international tax system by mitigating and eliminating the causes of Base Erosion and Profit Shifting as a long-standing OECD initiative and now serves as the primary platform for collective international action which was endorsed by the G20.

5.3. Digital Taxation Models and Implementation Modalities

The phenomenon of digital transformation reshapes traditional economic mechanisms, processes, consumer behaviors, and interactions across society. Such transformation affects tax law by modifying core tax concepts such as tax jurisdiction, taxable events, and transfer pricing. Digital business models are often characterized by location-agnostic systems, transactional anonymization, network effects, and high transaction volumes. Digital transactions concern non-fungible goods and services, bringing novel challenges to uphold pre-established taxation principles. Moreover, the distinctive nature of digital goods and services hinders mainstream policy efforts, straining the interaction between taxation and public goods dynamics. Consequently, the digital economy fuels the formation of new economic models

and cultivates socio-economic interactions across diverse aspects, such as environmental, social, and governance paradigms.

Transformation reshapes the market, politics, technology, assets, human behavior, and regulation. Various aspects of economic and societal concerns intertwine in multi-dimensional networks, where transaction volume, velocity, and agglomeration play a significant role. The digital economy stands of central importance in the interaction of the economy, society, knowledge, and the world. A profound shift on the economy emerging in the digital age follows the first shift of agriculture and second effects. A new wave of changes is gradually promoted, emerging scientific advancement, commercial mode, product service, and social style are the changes of the world in the new era. Major concerns concern taxation and digital transformation. Taxation is recognized as vital for elaborate economy and society. Digital transformation restructures people, procedure, mechanism, and even education, effecting various industries at different extent and manner (Guo et al., 2022).

6. Compliance, Privacy, and Ethical Considerations

Tax compliance is mandatory for every citizen in a country. Tax compliance means full and timely payment of the correct amount of tax by taxpayers. Assessment of tax liability and tax compliance becomes quite difficult in the case of automated and online transactions (AJ & S, 2018). Automated online tax compliance and computation is a challenge for the government and the citizens of a country (Mazur & Azam, 2019). There are huge number of transactions take place daily with the customers. The wrong computation of the tax and tax unpaid will result in a huge loss of revenue for the government. Tax authorities need to change the way they compute, monitor and check tax compliance and keep a record of tax filing on information analysis.

Digital capability can help them turn tax compliance into an automated process where tax computation, filling, and payment are done on time without the intervention of taxpayer. However the solution will put tax compliance under scrutiny to check how complete, accurate and timely tax information entered into the automated system is submitted based on the declaration filed by each of the taxpayer. Tax compliance is important for the government to collect the revenue needed for the development and progress of a country. Tax compliance can help the information on the marketing of product by which the government will regulate the kind of product marketing a taxpayer is doing to avoid. Cleanliness products must be maintainable by the tax payer per time taxable, and misuse, abuse and illegal marketing of product can be monitored.

Automation solutions the records will become accessible and visible to a governing body especially those that is occupation and service related. Routing and Inspection of document and filling documents by the taxpayers will require them to create prescriptive and definitive, and effective routing temporal approach and classification in delivering a standard service. Installed by obstacles such as equipment configuration the government need to capture documents and maintain the record more efficiently and become the earlier time of the automation career. Transition of registration from existing electrical tools also need to be made flexible and simple to promote the occupancy and presence of the public. Document inspection, water tight and fortifying tax medication related to those responsibilities not regulate to the completion of the inspection are timing out. Document Inspection become necessary to monitor the number of filling submitted by the taxpayer as well as to extend the flextime. The submitting documents must be found in a record or declaration fill by the taxpayer in order for the monitoring to archive completion or not.

Electronic data operating with cloud, mobile appliance, office tool, accounting and consultation software, information such as transaction, acquisition widen out of the taxpayer capability to save and manage is significant. Backtracking those archived files whether they saved, deleted, disposed, or forward is useful to determine a period of time to preserve data and the kind of file may also trigger declaration and registration should be kept record submittable to custom or tax bureau. Tax filing is a must for the taxpayer in order to keep the document and in a period of time, such as yearly filing and quarterly recording are therefore the kind of period that upline save draft of editable requisition. Tax filing and quotation of the documents have always been gaining tax clearance to support their tax clearance. Transactions

such as acquisition, receipt, transfer or any document that may entitled sensitive affairs as to the processing of editing can help fill full tax clearance to public office during filing and periodic submission. Information about a single or a group of document that a taxpayer is using for temporarily filing such document was able to have a determination of a limited period, for instance a maximum periodically submittable.

7. Impact on Stakeholders: Governments, Businesses, and Consumers

Digital transformation is reshaping how tax is assessed and collected, significantly impacting the relationship between stakeholders—governments, businesses, and consumers. Tax environments foster clarity and uniformity, encouraging transactions and enhancing economic effectiveness. The ability to measure tax compliance and administration decisions directly correlates with economic growth accuracy predictions. Greater transparency on tax policy implementation elicits more robust policy engagement, long-term predictability for both public and private sectors, and closer cooperation to bolster compliance and broaden support for compliance funding. By widening knowledge and its value chain, regulatory compliance shifts toward so-called “sandbox” principles that shift oversight to post-transaction analysis. Allocating resources to systems-based compliance informs governance of tax administration decision consequences.

The digital transformation provides critical input into how legislation and implementation affect tax policy in regulation, governance, and investment horizons. Financial districts report encouraging oversight for subsequent open data standards to gather multi-organization, cross-jurisdiction, and multi-layered feedback loops. Individual-level data disaggregation also fosters sandbox policy framework evaluations. Sovereigns increasingly expect remittance on transaction disclosures, further reinforcing the need for transparency. Undecided standards on content creation and distributed ledger technology—how much of each and in what mix—intensify scrutiny for guidance-based operations. The rapidly evolving digital landscape highlights the need for feedback that separately measures transactions and adequately remits on business types. Digital policy issues continue surfacing that require a comprehensive cross-country, cross-organization, and cross-band perspective on regulation, governance, and tax compliance assurance, all driven by end-user product service demands (Guo et al., 2022).

8. Case Studies: Jurisdictional Experiences and Outcomes

The Section 8 provides a comparative overview of Practical jurisdictional approaches to the digital transformation of tax administration, compliance, and policy development. The cases of New Zealand, the UK, Israel, Canada, and others are analysed to demonstrate modelling and deployment strategies.

9. Comparative Analysis of Legal Frameworks

Digital transformation generates societal and economic changes that offer opportunities for legal frameworks to evolve. It can also pose challenges that call for further examination of existing rules. The legal framework governing taxation, as an important part of the legal structure of society, is no exception. Digital transformation reshapes fundamental concepts that underpin tax systems and law enforcement, while at the same time making existing regulations obsolete. Opportunities and challenges are associated with taxation, tax compliance, filling out tax returns, file exchanges, and tax audits.

Digital taxation relates to conducting government, personal, civic, and commercial business using information technology (IT) and digital means. Digital taxation focuses on tax collection and compliance through digital means. The OECD estimates that tax administrations can tighten compliance through data exchange and analytics, resulting in 5-20 percent tax revenue gains (Fjord Kjærsgaard & Koerver Schmidt, 2018). Such developments help reduce the tax gap, combat avoidance, and fill the digital tax gap (Mazur & Azam, 2019).

10. Conclusion

Digital transformation has reshaped a wide array economic and social sectors. This far-reaching process affects tax law by offering new opportunities but also generating serious legal challenges. This work outlines key opportunities and challenges arising in income taxation as businesses increasingly digitalize their operations.

The legal opportunities include enhanced tax administration and compliance, data-driven tax policy and empirical analysis, and international tax cooperation targeting digital services (Fjord Kjærsgaard & Koever Schmidt, 2018). These opportunities allow lawmakers to reinforce their domestic tax system. Tax administrations have previously relied on economic indicators such as the number of registered companies and employed individuals. Digitalization empowers them to utilize a broader range of readily accessible administrative datasets that provide better insights into tax policy.

Digitalization creates business models that do not rely on traditional physical space. Consumers' activity on platform-based business models generates substantial profits; yet, these profits can evade taxation if the platform owner has no physical presence in the jurisdiction. Targeting marketplaces for income received by users represents a viable option for taxing otherwise untaxed profits (Harpaz, 2021). Technical problems persist in determining how to allocate revenue in multiple-jurisdiction scenarios, yet policy-makers continue to strive for a framework that lowers market-place tax avoidance.

Ethical Considerations

This study is based exclusively on secondary sources, including academic literature, international policy documents, and publicly available legal materials. No human participants, personal data, or confidential information were involved. The research adheres to principles of academic integrity, objectivity, and transparency.

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Conflict of Interest

The author declares no conflict of interest related to the publication of this article.

References:

1. AJ, S., & S.J. (2018). *Digitalization of tax: Comparing New Zealand and United Kingdom approaches*. British Tax Review, 2018(4), 451-472.
2. Chand, V., Turina, A., & Ballivet, L. (2020). Profit allocation within multinational enterprises in light of the ongoing digital debate on Pillar I: A “2020 compromise”? Intertax, 48(8-9), 636-655. <https://doi.org/10.54648/taxi2020060>
3. Fjord Kjærsgaard, L., & Koever Schmidt, P. (2018). Allocation of the right to tax income from digital intermediary platforms: Challenges and possibilities for taxation in the jurisdiction of the user. Nordic Tax Journal, 2018(2), 1-25. <https://doi.org/10.1515/ntaxj-2018-0006>
4. Guo, Y., Zou, T., & Shan, Z. (2022). Taxation strategies for the governance of digital business models: Evidence from China. Journal of Asian Economics, 78, 101441. <https://doi.org/10.1016/j.asieco.2022.101441>
5. Harpaz, A. (2021). *Taxation of the digital economy: Adapting a twentieth-century tax system to a twenty-first-century economy*. European Taxation, 61(3), 109-123.
6. Mazur, O., & Azam, R. (2019). Cloudy with a chance of taxation: The digital economy and its tax implications. Florida Tax Review, 22(1), 1-52. <https://doi.org/10.2139/ssrn.3314411>

7. Organisation for Economic Co-operation and Development. (2015). *Addressing the tax challenges of the digital economy* (OECD/G20 Base Erosion and Profit Shifting Project, Action 1). OECD Publishing. <https://doi.org/10.1787/9789264241046-en>
8. Organisation for Economic Co-operation and Development. (2021). *Statement on a two-pillar solution to address the tax challenges arising from the digitalisation of the economy*. OECD Publishing.
9. Organisation for Economic Co-operation and Development. (2023). *International tax reform: Pillar One and Pillar Two*. OECD Publishing.
10. Devereux, M. P., Vella, J., & Wardell-Burru, L. (2021). Can international tax rules respond to the digital economy? *British Tax Review*, 2021(1), 31–52.
11. Cockfield, A. J. (2019). Taxing global digital commerce. *Harvard Journal of Law & Technology*, 32(2), 339–382.
12. Brauner, Y., & Pistone, P. (2017). Adapting current international taxation to new business models: Two proposals for the European Union. *Bulletin for International Taxation*, 71(12), 684–694.
13. Vella, J. (2019). Digital services taxes: Principles and policy responses. *European Tax Policy Forum Discussion Paper*, 3, 1–34.
14. IMF. (2019). *Corporate taxation in the global economy*. International Monetary Fund.
15. IMF. (2021). *Taxing the digital economy*. IMF Policy Paper.
16. European Commission. (2018). *Proposal for a Council directive laying down rules relating to the corporate taxation of a significant digital presence*. COM(2018) 147 final.
17. European Commission. (2020). *Taxation of the digital economy*. Publications Office of the European Union.
18. Avi-Yonah, R. S., Clausing, K. A., & Durst, M. C. (2020). Allocating business profits for tax purposes: A proposal to adopt a formulary profit split. *Florida Tax Review*, 20(2), 91–133.
19. Graetz, M. J. (2018). *The known unknowns of international tax*. Oxford University Press.