



## Comparative Analysis of Taxation Techniques and Models used in Digital Economy

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### ABSTRACT

In terms of a digital tax, there are certain interesting characteristics of the digital economy and its business structures. Some of these characteristics include mobility, data dependency, network effects, and buildup of multi-faceted business versions, a propensity toward dominance or monopoly, and unpredictability. Our study offers a digital economy model that explicitly accounts for a number of these aspects. The economic structures of platforms are bidirectional, they rely significantly on data collection, and they dominate the market. This model is then used to examine the effect of different taxes suggested to target implicitly dominating digital platforms. The aim of this paper was to examine various digital taxation models that are currently in use in other countries. The paper ends by proposing some recommendations to overcome some of the challenges and issues raised in this paper.

**Keywords:** Digital, Taxation, Digital Platforms, Digital Economy, Digital Service Tax

**JEL Classifications:** P51

### 1. INTRODUCTION

In addition to its function as a source of technological and organisational change and as one of the primary development drivers, the so-called Digital Economy has become a key issue for governments, especially fiscal authorities. Currently, the most significant players in the digital economy are the most lucrative enterprises in the global economy. In 2015, Google's total revenue was \$74.5 billion, and the company had an operating profit of \$23.4 billion. With a market capitalization of about \$300 billion at the end of 2015, Facebook's shares have more than quadrupled in value since its IPO back in 2012. However, several multinational corporations are recognized for their low effective tax rate and their capacity to design global fiscal plans in order to capitalize on fiscal competitiveness worldwide.

In reaction to severe budget restrictions brought on by the financial crisis, governments have launched a number of measures to capture

a greater share of the digital value generation. Base erosion and profit shifting was the focus of an OECD study published in 2014 which focused on preventing earnings from being moved to territories with lower corporate tax rates. "Equality, simplicity, and effectiveness are what the European Commission's new tax avoidance package intends to make company taxes in the EU.

According to a 2014 OECD report, "the digital economy and its business designs exhibits a number of features that may be crucial from a tax point of view. These include movability, dependency on data, network effects, the buildup of multi-sided business designs, a trend toward volatility and monopoly. Our research provides a model of the digital economy that explicitly accounts for a number of these factors. The economic systems of platforms are bidirectional, they depend heavily on data collecting, and they dominate their particular marketplaces. This model is then used to examine the effect of potential taxes on digital platforms that dominate the market implicitly.

Since advertising is the primary source of income for major digital platforms, it may be acceptable to explore a tax on internet advertising revenues, a proposal that has been vehemently opposed by advertising experts. For platforms that do not charge users and do not have significant variable costs, ad valorem taxes on advertising are preferable to data taxes since they are revenue-neutral. The effect of tax base dependency on platforms that increase prices on both sides of their company in reaction to a tax is the same regardless of the tax type. The platform may reduce advertising costs, membership fees, or both as a response to the introduction of an ad valorem tax on advertising. Because they eliminate the interdependence impact on tax bases, ad valorem taxes perform better than per-unit taxes in terms of bringing in revenue for the government.

## 2. METHODOLOGY

### 2.1. Introduction

This review evaluated only studies published in English. This study included studies published from 2000 to the present based on the time period during which application security research started. IEEE Journal, International Conference on Computer and Communication Technology, Journal of Financial Theory and Practice, and Journal of Public Economic Theory were among the databases examined. Throughout the research, significant terms such as “taxation models”, “digital economy,” and “taxing the digital economy”, were employed.

### 2.2. Inclusion and Exclusion

A report that matched the following criteria was included: 1) The items that were or required to be extracted are described in the methods or results section; and 2) At least one item was automatically extracted, with assessment findings supplied for that paper.

To be excluded, an article had to meet one of the following standard: 1) the procedures used to extract data in a systematic analysis; 2) the article was a review, paper, or another non-unique study report; or 3) there was no assessment element.

In this investigation, only articles published between 2010 and 2022 were included. Also included were research that focused on taxation models and other digital user-generated taxing strategies. The research does not include documents published before 2010.

### 2.3. Information Sources

Academic Search Premier, ABI/INFORM Global, Vital Law, Lexis, ABI/INFORM Collection, ProQuest Digital Dissertations, Business Source Complete: Enhanced Business Interface), Science Direct (Elsevier), (EBSCO Scopus, and Google Scholar are some of the databases that were searched for information.

### 2.4. Selection Process

First, we removed all instances of duplicate retrieve citations. For the purpose of calibrating and refining the inclusion and exclusion criteria, two reviewers independently evaluated 40 random citations. With the participation of a third reviewer, disagreements were addressed by consensus. In a second round, two reviewers

independently evaluated another set of 39 randomly chosen abstracts, achieving a high degree of agreement. Given the high degree of agreement, just one reviewer examined the remaining papers. We classified research as “irrelevant” or “possibly important” throughout this step. Two writers independently examined the complete texts of all “possibly important” sources. We categorized reports according to the specific data piece that we sought to remove from the unique scientific journals. With a consent from a third author, we resolve disagreements between the two reviewers.

### 2.5. Data Collection Process

There were two independent reviewers engaged in the process of collecting the data. The reviewers have at least a fundamental grasp of the issues, as well as expertise in research design, data analysis, and statistics. The reviewers received training to acquaint them with the relevant study subject. After data gathering, retrieved articles were evaluated to determine which were the most desirable. Any disagreement between the two reviewers was then settled by a third independent reviewer (Table 1).

### 2.6. Data Analysis and Synthesis

A meta-analysis of scientific features and dependent variables connected with the rate of data removal techniques could not be conducted due to the considerable variety in research methodologies and measures. Therefore, we provide a narrative summary of our results.

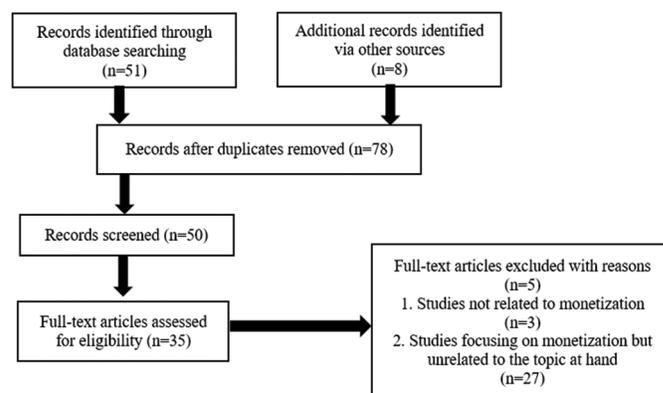
### 2.7. Study Selection

We picked 50 reports for full-text screening after retrieving 78 unique citations, and 35 papers fulfilled our inclusion criterion. The relationship that exist between full-text and abstract screening was 0.99 and 0.96, respectively (Figure 1).

### 2.8. Literature Review

The problem of corporate income taxation in digital economy gained ground recently. Especially it concerns “EU digital tax”, which started to be actively discussed in the second half of 2018. Additionally, it should be recognized that the great number of papers investigating the issue are analytical papers of international financial and consulting organizations (e.g. PwC, KPMG, Deloitte, E&Y etc.), and both supranational (UN, OECD, European Commission, European Parliament, Asian Development Bank) and

**Figure 1:** Screening process of the articles to be added for this review



**Table 1: Existing automation work category, sources, and data elements existing automation work**

	Category	Standards inclusion	Published approach to extract
Total participants number	Non-Participants	ABI/Inform Global , ABI/INFORM Collection	Yes
Settings	Miscellaneous	Google Scholar, ScienceDirect	No
Country	Miscellaneous	ABI/Inform Global, ABI/INFORM Collection	Yes
Date of study	Participants	Google Scholar, ScienceDirect	No
Total number of intervention group	Non-Intervention	Google Scholar, ScienceDirect	No
Results and time points were (i) gathered; (ii) documented	Outcomes	ABI/INFORM Collection, ABI/Inform Global	No
Overall evidence	Discussion	ABI/INFORM Collection, ABI/Inform, Global Google Scholar	Yes
Study design	Method	EBSCO	Yes
Total study duration	Method	EBSCO	No
Funding source	Method	EBSCO	No
The study authors major conclusions	Discussion	EBSCO	Yes
Other relevant studies references	Miscellaneous	EBSCO	Yes
Required Correspondence	Non-Intervention	EBSCO	No
Review authors Miscellaneous comments by the	Miscellaneous	Google Scholar, ScienceDirect	No

national (ministries and commissions of countries, e.g. Australia, India, UK) authorities (Hellerstein et al., 2019).

The cited texts give conditions for the vast majority of extant academic economic articles on corporation income taxes in the digital economy. For instance, (Devereux and Vella, 2017) examine theoretical framework associated with the effects of digitalization on international corporation tax reform. Examining the issue of transfer pricing in the context of OECD reform suggestions for taxing enterprises in the digital economy (Olbert and Spengel, 2019). They recommend refining transfer pricing guidelines in an effort to achieve the desired alignment between profit taxes and value creation.

Meisner and Ledbetter (2020) examined some elements of the income taxation of contemporary multinational corporations using internet and e-commerce platforms, as they pertain to taxes on Internet connection. The authors came to the conclusion that the most significant tax system includes a double tax rate wherein the program is taxed at a lower cost for accessible incomes than the tax cost for incomes tied to data retention and utilization.

Having said that, the problem of income taxation of digital corporations is not adequately investigated (Erickson and Kellogg, 2000). This is due to rapid evolution of digitalization, requiring rapid reaction from both supranational and national authorities in the view of averting tax avoidance and tax dodging by multinationals, functioning in digital sector.

Below we describe current initiatives of OECD and EU related to the income taxation of digital corporations.

### 3. CHARACTERISTICS OF BUSINESS MODELS THAT ARE HIGHLY DIGITALIZED

#### 3.1. Scale without Mass

Digitalization enables businesses to contact worldwide clients in several countries without building a physical presence there

(European Commission, 2017). Additionally, digital establishments have spread their business activities across many taxing countries for tax benefits thereby minimizing their effective tax burden and enhancing their earnings. A company based in the Cayman Islands that trades digital subscription services to consumers in the United Kingdom, for instance, may have R&D venture in the America and a trade section in Luxembourg.

#### 3.2. Dependence on Non-Physical Assets

For a digitally changed organization, intangible assets are a critical component of the overall strategy. Essential components include complex algorithms, brands, copyrights, patents, software, and trademarks. Intangibles are resources that can be easily created in a low or no-tax country while services are rendered in a high-tax one (Dharmapala, 2014). By using distant technology, businesses may control, administer, and utilize intangible assets situated outside of a tax jurisdiction.

#### 3.3. Data and User Participation

On multi-sided digital platforms, users give material and data to digital enterprises via surveys, search histories, page sharing, and page likes. Facebook and other multifaceted platforms give users free services or products in return for their individual data. In order to enhance, explore, or develop new products or services this user-data is collected and analyzed in, hence generating economic worth for the organization. By selling data for targeted online advertising, the collected information is also monetized (Barthold et al., 2016).

#### 3.4. Increasing Tax Concerns in the Digital Economy

Nexus and value generation are the primary obstacles faced by the aforementioned characteristics of digitalization.

##### 3.4.1. Where should we pay taxes based on nexus?

According to current cross-border tax legislation, a firm is liable for taxes based on its location. There is barely a need for a visible presence in the country of business in the digital era, since intermediate platforms facilitate online transactions (Dharmapala, 2014). For instance, a customer from the United States may purchase a mobile phone cover from Alibaba, a Chinese online marketplace

with shipping to India. Because of the economic presence of digitalized business models, major changes have occurred in the way taxes are levied. Instead of taxing the country of origin, which is where the companies are based, taxes are now levied in the country of destination, which is where the user is located.

#### 3.4.2. Value creation (What to tax?)

A wide range of consumer data may be accessed throughout the globe, thanks to intangibles, digital infrastructure, and technology. Value can only be created if consumers of digitalized firms like social media platforms participate. The user's data becomes a source of revenue for the company (Gyau, 2020). For example, a company's search engine collects a range of data from UK customers. A low-tax jurisdiction like Ireland is used for advertising contracts and payments, while this data is reviewed and sold to advertising corporations. Regardless of the fact that value is generated in the United Kingdom, incomes are taxed at a far lesser rate in Ireland. Because of the data on how users interact with websites, determining the appropriate tax jurisdiction in certain situations may be challenging.

#### 3.4.3. Digital services taxes

There is increasing worry that the current international tax structure does not adequately reflect the digitization of the economy. Under existing international tax regulations, multinational corporations normally pay corporate income tax in the location of production rather than in the location of customers or, in the case of the digital industry, users (Vukovic, 2018). Nonetheless, others claim that via the digital economy, enterprises (implicitly) earn money from international customers but, business income tax is exempt for companies having no physical presence in the nation in question. (Aslam and Shah, 2020).

In order to address the concerns about a mismatch between worth creation and business taxation, the OECD has held talks with more than 130 countries to try to change the global tax system (Crivelli et al., 2015). According to the current proposal, multinational firms would be required to pay a portion of their business income taxes in the countries where their customers are based by matching international taxation rights with new measures of value creation (OECD, 2018).

Many countries have chosen to introduce another system of digital taxation, such as digital services taxes (DSTs), as an alternative to business taxation despite ongoing international discussions. Nations utilize digital services taxes (DSTs) to tax big firms on the income they make from providing specific digital services to local users or customers, rather than changing present international tax legislation to better reflect the digital economy.

## 4. DIGITAL SERVICES TAX MODELS AROUND THE WORLD

Countries throughout the globe have declared, planned, and in some instances actually adopted DSTs in recent years. Previously thought of as an EU-wide tax, DSTs are now policies present globally.

### 4.1. Proposal for a DST by the European Union

Internet-based firms might be taxed according to the European Commission's proposed legislation in March of this year. DSTs should be enforced until robust digital presence restrictions are in place, but this proposal's long-term goal is to implement DSTs (Duch-brown et al., 2017).

Digital advertising, online marketplaces, and user data sales would be subject to a 3% tax under the EU's DST. Companies with yearly revenues above in global sales of €50 million (US \$56 million) and €750 million (US \$840 million) in EU revenue are subject to the regulation. As of 2018, the tax is expected to bring in an estimated €5 billion (\$5.6 billion) each year for countries of the European Union, or 0.08 percent of total EU tax revenues (Ozai, 2020). The European Commission was unable to get the requisite unanimity to enact the plan. However, it has signaled that it would begin work on taxing the internet sector if the OECD fails to achieve an agreement (OECD, 2021).

### 4.2. Unilateral DSTs

DST has been implemented in a number of European countries because the European Commission could not agree on an EU-wide DST. DST has also been applied outside of Europe (Harpaz, 2021). While the design of DST in each country is unique, the majority of nations have embraced some components from the EU's DST plan. examples of nations that have adopted DSTs with a various model characteristics include Austria, France, India and UK (Harpaz, 2021).

#### 4.2.1. France

In France, DST was introduced in July 2019 and went into effect as of January 2020. Digital interface services, particularly the trading of user data gathered for advertising reasons singled out internet advertising, and are subject to a 3 percent DST tax on gross income. If a company's global sales surpass €750 million (\$840 million) and its French sales exceed €25 million (\$28 million), it will be subject to the tax. To put it in another way, the tax is evaluated to earn €500 million (\$560 million) a year, or 1.01 percentage of France's commercial revenue taxes and 0.05 percent of overall tax collection in 2018 (OECD, 2020).

Under Section 301, a probe was instituted by the American Trade Representatives after France implemented its digital service tax to ascertain if it was an unfair levy on American businesses. It concluded that the tax was unfair and advocated tariff reprisal. France decided to postpone the collection of its DST in 2020 (despite the fact that the tax is due in 2020), in order to avoid such levies, since the OECD hopes to reach an agreement by the end of 2020 (OECD, 2021).

The tax is expected to generate 275 million (\$358 million) in 2020–21 and 440 million (\$572 million) in 2023–24. In the fiscal years of 2023–2024 the expected revenue is 0.06 percent of overall tax incomes and 0.72 percent of corporate tax receipts in 2018.

#### 4.2.2. United Kingdom

Table 2 illustrates the expected revenue from DST of the United Kingdom.

#### 4.2.3. Austria

Austria introduced DST beginning in January 2020 (Harpaz, 2021). The current digital advertising tax is administered at a rate of 5% to online advertising revenue earned by businesses with worldwide sales of more than €750 million (\$840 million) and Austrian incomes above €25 million (\$28 million). Because Austria's digital service tax applies solely to online advertising, its reach is more limited than, instance, that of United Kingdom or France (Olbert and Spengel, 2019). Traditional advertising in Austria is subject to a particular advertising tax. As a result, one might claim that the DST brought equality between traditional and internet advertising. As a consequence, the DST's global and local revenue restrictions effectively exclude the bulk of domestic digital advertising suppliers, resulting in further distortions (van Weeghel et al., 2020).

It is projected that the tax on digital services would bring in a total of €25 million (\$28 million) in the year 2020, with this figure rising to €34 million (\$38 million) in the year 2023 (Table 3). In comparison, the amount of money to be collected in 2023 is expected to be 0.33 percent of company tax incomes and 0.02 percent of the entire tax incomes received in 2018 (Bunn et al., 2020).

#### 4.2.4. India

In June 2016 India introduced an "equalization levy" that was made up of a 6% tax on the gross incomes of non-resident businesses offering online advertising services (Gwaindepi, 2021). An additional 2% equalization charge will be imposed on the earnings of e-commerce enterprises that have a temporal presence in India and are excluded from the preceding 6 percent equalization levy as of April 2020. The minimum yearly income requirement is Rs. 2 crores (\$284,115.(OECD, 2019).

The alteration inflates the equalization charge from only advertising from the internet to almost all online businesses carried out in India by non-resident companies, creating a far higher tax than the DSTs of the Europeans mentioned previously while notably excluding local companies.

**Table 2: Expected revenue of the UK's DST (Million £)**

Fiscal year	Revenue
2019-2020	+5
2020-2021	+275
2021-2022	+370
2022-2023	+400
2023-2024	+440

Source: HM Revenue and Customs, "Introduction of the New Digital Services Tax," July 11, 2019, <https://www.gov.uk/government/publications/introduction-of-the-new-digital-services-tax/introduction-of-the-new-digital-services-tax>.

**Table 3: Estimated revenue from Austria's DST (millions of euros)**

Fiscal year	Revenue
2020	+25
2021	+28
2022	+31
2023	+34

Source: [https://www.parliament.gv.at/PAKT/VHG/XXVI/ME/ME\\_00132/fname\\_746835.pdf](https://www.parliament.gv.at/PAKT/VHG/XXVI/ME/ME_00132/fname_746835.pdf).

## 5. RECAP OF DSTS OUTSIDE OF EUROPE

DSTs have been announced, planned, or put into place in a number of locations across the world, although they are most common in Europe. DST is used in Tunisia, Indonesia, and India. A suggestion of DST came from Kenya and Brazil, while New Zealand, Israel, and Canada have said they're contemplating one. In the end, a DST implementation plan for 2018 was rejected by the Chilean government (Harpaz, 2021).

### 5.1. Economic Incidence of DSTs

The economic effect of DST if it was implemented would be more like an excise tax than a company income tax. In spite of the fact that the majority of shareholders' income is concentrated in wealthy households, excise taxes are typically absorbed by consumers by raising the price of goods (van Weeghel et al., 2020). Because those with lesser incomes spend a larger percentage of their income, excise taxes are often progressive.

The capacity to transfer to clients, the kind of wares and utilities provided, and how clients acknowledge the tax all affect how exactly a DST affects equity. Anecdotal evidence indicates that some businesses affected by DSTs have charged their customers or consumers in addition to themselves (Lucas-Mas and Junquera-Varela, 2021). Regardless of the advertiser's location, Google has announced that it would charge clients that buy Google advertising in Austria 5% DST on their bills when their ads are clicked or viewed by Austrian consumers. Amazon increased its commission fee for businesses selling on its French marketplace by 3% in order to disregard DST in France.

## 6. THE CASE OF GHANA

With respect to Ghana, digital taxation is a thing of the future, "far-fetched" from reality. Apart from our traditional tax system, the recent tax currently in place is taxation on the telecommunication sector.

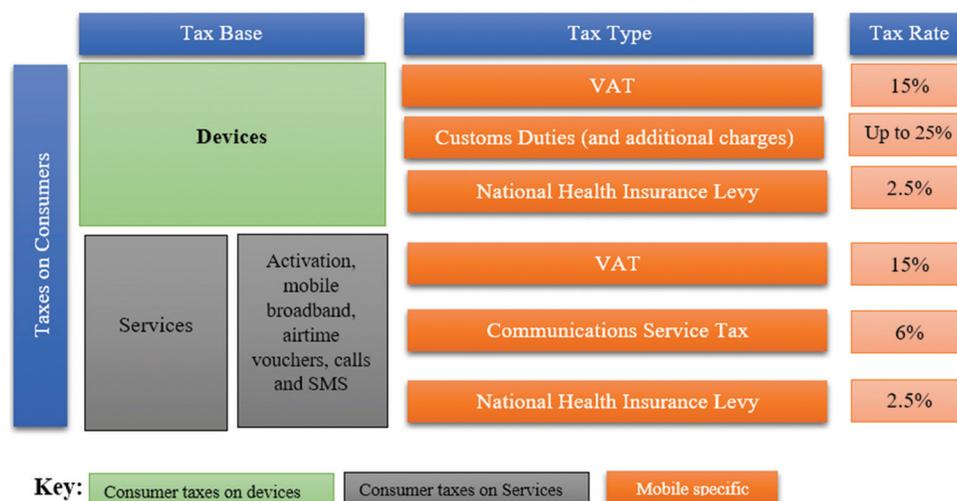
In Ghana, the mobile industry is heavily taxed, hence preventing customers from gaining access to mobile services. Mobile phone ownership and use in Ghana is now taxed at a higher rate because of the country's existing tax system.

Consumers must first acquire a gadget and SIM card, which are subject to VAT, customs charges, and the levies from National Health Insurance (NHIL).

Value added tax (VAT), Communications Services Tax (CST), and the NHIL are all taxes that must be paid by consumers when they activate their smartphones or tablets.

Finally, the CST, VAT, and NHIL all apply to the purchase and use of mobile services such as phone calls, SMS, data, and airtime vouchers.

An additional 20% customs charge, on top of the VAT and the NHIL, was reinstated in 2013-14 on imported handsets, smartphones, and tablets (Deloitte, 2015). As a consequence of

**Figure 2:** Ghana's tax distribution based on mobile operator data

these levies, the overall rate of taxation on electronics in Ghana is 38 percent, which is about 50 percent more than the average in Africa (Deloitte, 2015). This is mostly due to the customs tariff, which is among the highest in Africa. By limiting the price of smartphones, these tariffs run the danger of excluding many Ghanaians from the substantial advantages of mobile and mobile broadband and of fostering an illegal black market for cellphones, with equipment from neighboring nations entering the country (Ameyaw and Dzaka, 2016). In the 2015 budget, the Ministry of Finance exempted smartphones from customs charges, which would increase the affordability of smartphones. However, the cost of feature phones will remain a concern. A breakdown of Ghana's mobile tax distribution is shown in Figure 2.

In contradiction to the company income taxes, digital service taxes are charged on a company's incomes rather than its profits and do not take profitability into account. Such purportedly low tax rates on revenue might result in substantial tax burdens (Popova et al., 2021). A trade with \$100 in sales and \$85 in costs would have a 15% profit margin, or \$15. Corporations with a DST rate of 3% are needed to pay \$3 in income tax (3 percent on \$100 in income), which is equivalent to a 20% dividend tax. This suggests that actual profit tax rates fluctuate based on a company's profitability, unjustly penalizing companies with smaller profit margins (Vukovic, 2018).

As opposed to Value-Added Taxes (VAT), turnover taxes do not have a method for crediting prior tax payments, therefore they may be applied several times along the supply chain. According to Tilstra and O'Sullivan (2014), this practice of "tax pyramiding" has the potential to skew economic activity and bring effective tax rates up to higher levels. The inefficiencies of turnover taxes may be reduced due to the fact that they are only charged at certain points in the supply chain. Turnover taxes, unlike value-added taxes (VATs), do not exclude company inputs. Corporate contributions like cloud computing and advertising may be subject to DSTs.

Moreover, DSTs are discriminatory with regard to business size. Due to the local and global income criteria, the tax is imposed

only to major multinational corporations. While this may reduce the total administrative cost, it also gives a comparative advantage to firms operating below the limit and generates an incentive for enterprises running close to the threshold to modify their conduct. Comparatively, digital firms are handicapped compared to traditional enterprises operating in the same industry, such as online and conventional advertising.

Additionally, the implementation of DST incurs extra administrative and regulatory expenses. Governments are required to offer specific instructions on how the tax is computed and submitted, as well as manage and enforce the tax. In addition, firms must recognize the whereabouts of their clients and calculate their base of taxation.

In the 1960s, Europe replaced its turnover taxes with value-added taxes due to the aforementioned concerns and in an effort to improve the cross-border market. The adverse economic impact of turnover taxes, representing a regression in terms of good tax policy was re-established by the introduction of DSTs.

## 7. CONCLUSION AND RECOMMENDATIONS

It is the goal of governments and organizations like the OECD and the European Union to bring the income earned and taxes paid into balance by amending current international tax legislation and eliminating loopholes. The rise of the internet economy has enabled corporations to investigate worldwide tax regimes, resulting in a discrepancy between income and taxes paid. Governments' unilateral measures to build a fair and equitable tax system by concentrating on wildly successful digital businesses enjoy the benefits of neutrality and competition. Nonetheless, it poses compliance concerns, the potential of tax fraud, and inefficiencies. Specifically with regard to the equalization tax. Turnover tax policies, like those in France, which are the topic of intense political controversy and are widely believed to be aimed primarily at the likes of Google, Facebook, and Amazon, have a high revenue barrier.

Another contentious area in the digital economy is value creation. User-generated value is not just found in digital firms, according to the OECD and the United States. User Generated Content (UGC) is also used to create products in traditional businesses like the healthcare sector. The EU, on the other hand, believes that it has the authority to levy taxes based on the value of goods and services purchased by EU citizens. By 2020, the OECD and G20 nations want to propose a complete solution based on agreement. As the internet economy evolves and adapts international tax law, it is an exciting time to be a tax practitioner.

Establish a statistical framework for monitoring online platform activity. Any unique tax on online behavior must be based on a precise assessment of internet platform activities. Data on users, clicks, and advertising must be available to tax and regulatory agencies in order to quantify this activity. Consequently, it is crucial to create a statistical tool for tracking the activity of online platforms.

The number of users within the territory of the tax authorities should be taken into account when determining the sharing rule for corporate profits. The current transfer pricing and territorial definitions used to tax multinational corporations are out-of-date. New laws must be passed within the context of international negotiations in order to adapt definitions to the digital economy. Since the presence of these users is a need for the platform to earn income, these rules have to take into account the number of users who are subject to the jurisdiction of a tax authority. Profit-based taxes allow tax authorities to collect a portion of the network rent produced by network externalities and are not anti-competitive.

Consider enacting a special tax based on earnings made within the tax authority's jurisdiction if there is no fair-share regulation on corporate earnings. The national tax authority may assess a profit-based ad valorem tax in the event that there is no clear and fair norm about how revenue is to be shared. Revenues and profits are equal because variable expenses are minimal. If agreements between advertisers and platforms are made in another country, it is more challenging to calculate advertising revenue. It is feasible to set guidelines for estimating advertising revenues based on statistical information about the activities of online platforms in the country.

Consider using an activity-based tax if there isn't already one in place and taxes on domestic revenues aren't allowed to be used to distribute corporate profits fairly (users, the volume of data, or the number of advertisers). This tax need to be set up with very low rates, preferably in accordance with data gathering. It is misleading and would change how users, advertisers, and platform operators behave to charge a unit taxable amount on the quantity of users, adwords, or clicks that represent data flows. It has negative impacts on participation on the platform and may cause the company to change its price strategy, which would result in the elimination of certain users. In addition, it is likely to lead to an increase in data exploitation. For that reason, direct internet activity-based taxes should be employed only as a last option when it is unable to tax income or profits.

Depending on the source of the earnings, different tax rates should be applied: income derived from one-time access should be taxed at a lower rate than income derived through data exploitation (Kelsey et al., 2020). There are two different ways that a platform may make money: the first is via the fundamental revenue gained by one-time access (selling an item, keyword-related advertising revenue), and the second is through the revenue connected with data exploitation (selling information on searches to third parties and storing customer information for use in future targeting) (Kelsey et al., 2020). Taxes on revenue differentials reduce the incentive for platforms to collect and use consumer data, which in turn improves the customer's welfare (Kelsey et al., 2020).

Platforms should be encouraged to provide menus with varied levels of data exploitation and to compensate consumers for providing personal information. Platforms will categorize users based on their privacy costs by providing a number of alternatives with varying degrees of data exploitation and by standardizing processes such as the ability to allow cookies or be geo-localized. If various types of compensation are supplied, customer welfare will grow (whether monetary or in the form of better service quality). In some businesses, it is now feasible to pay for data. As an example, supermarkets provide discounts to customers using loyalty cards that record their prior purchases. Additional taxes may be levied on local users' data if platforms provide financial incentives.

Enhancing the technology watch will allow one to better anticipate future shifts in the services, quality, and market structure. Grants and tax credits should be tailored to encourage innovation. Online platforms' long-term investment choices are distorted when their profits or sales are taxed (European Commission, 2014). It is crucial to ask that regulatory agencies keep a careful watch on the development of online platforms, services, and goods, as well as the competitive environment, in order to prevent taxes from choking innovation. Customized tax breaks and subsidies are required to promote innovation and an increase in service quality.

The idea of destination should be generalized, and the sales tax rate should be standardized. The concept of origin, which is supported by online commerce, encourages a race to the bottom. In accordance with the principle of destination, internet trade decreases tax competition, allowing for a rise in taxes.

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