

FEATURES OF TAXATION OF HIGH-TECH PRODUCTION OF DIGITAL BUSINESS*

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Abstract. The purpose of the scientific research is to identify and argue the relationship between the quality and amount of taxation of digital products and services, and the development of digital businesses. It also aims to propose tax incentives for e-businesses. The focus of the scientific research is the digital competitiveness of countries in 2023, as well as the variables that influence it, such as GDP per capita, population size and the digital quality of life index. The research also examines the digital capabilities and innovative solutions that countries use to strengthen their competitive position in a globalised world. *Methodology.* Research using a graphical method to change the optimal production volume of a digital enterprise, alongside the methods of comparison, analysis and synthesis, made it possible to identify and explain the influence of tax principles and types of tax on digital products and services on the functioning of digital businesses in different countries worldwide (direct dependence). *Results.* The research revealed a significant correlation between the quality of digital service taxation and digital business development. Furthermore, the higher a country's knowledge and technological results, the faster its high-tech production scales. The impact of knowledge and robotics on the development of high-tech production is presented visually and explained. During the study of digital taxes, it was found that the order in which they are collected in many countries corresponds to the modern principles of taxation. Currently, institutionalisation of taxes on digital goods and services is underway, with tax rates ranging from 1 to 20%. Collection rules are periodically adjusted as the tax base expands. *Practical implications.* From a practical point of view, the publication's value lies in the author's recommendations for improving the quality of taxation for digital businesses and high-tech production. These recommendations will ensure the rapid filling of budgets in the future and contribute to sustainable economic growth. *Value/Originality.* The article reveals the issue of the digital capabilities of businesses and their management, and the ability of governments to make innovative economic decisions in order to strengthen their competitive position in the world in the context of globalisation. The article's contribution to theoretical scientific heritage lies in its study of taxes imposed on e-entrepreneurship and virtual businesses, assessing their impact on the level of digitalisation in the economy and production, as well as on budgetary revenues.

Keywords: e-commerce taxation, digital business, taxes on digital services, high-tech manufacturing, robotics.

JEL classification: E62, H25, O14, O33

1. Introduction

The digital transformation of the economy has a powerful influence on the digitisation of business processes and models, forming a new enterprise

management system. In recent years, technical and technological improvements have led to enhanced tools for conducting e-commerce and internet trade. “Innovative digital technologies and technological

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developments ensure the development of digital entrepreneurship” (Kollmann (Ed.), 2022). “The development of digital technologies has allowed enterprises to scale their activities across the border at a hyper-fast rate” (Gangodawilage (Ed.), 2022), and “digital taxation is linked to economic innovation” (Kwan (Ed.), 2022).

Technological advances have reduced the costs of online commerce, enabling consumers to purchase goods from sellers anywhere in the world, rather than just from nearby jurisdictions. Institutional reforms have changed the taxation rules, and now, in a number of countries, tax authorities can monitor and tax purchases made by their residents abroad. These fiscal mechanisms have expanded the scope of taxation. However, different jurisdictions have different economic effects and limitations on revenue collection (Agrawal & Wildasin, 2020).

One of the reasons this study is relevant is the attempts by digital enterprises and virtual businesses to avoid paying taxes. Excessive taxation during the initial stages of digital entrepreneurship and throughout business operations can lead to digital business entities seeking to evade taxes through “double bookkeeping”. This is caused by the overwhelming amount of taxes and their administration.

The most obvious reason for tax evasion is the monetary savings that result from tax avoidance. These cash savings can be used to increase a company's cash flow, opening up new opportunities for investment and increasing the company's value (Annuar (Ed.), 2014).

2. Literature Review

The taxation of digital goods and services (DGS) in different countries demonstrates not only the digital enhancement of tax systems, but also the efforts to formalise digital business and ensure that digital entrepreneurship is transparent and reliable for governments, business partners and consumers. Therefore, scientists are interested in studying the peculiarities and rules of taxing digital businesses and high-tech industries, as well as the peculiarities of the digital transformation of entrepreneurship in terms of taxing business activity.

Using the 2011–2015 National Tax Survey Database and the Peking University Digital Finance Index, researchers J. Ouyang, Sh. Liu and H. Li (2023) analysed the causal relationship between digital finance and small business tax compliance. Meanwhile, M. Javaid, A. Haleem, R. Singh and A. Sinha (2024) studied the influence of the digital economy on the development of Industry 4.0. The researchers presented the features of the implementation of Industry 4.0 on the basis of digitalisation. The challenges confronting production and industry in the course of using the latest digital technologies were highlighted (Javaid (Ed.), 2024).

In 2016, M. Antelo dedicated his research to the analysis of the government's financial strategy, with a particular focus on its approach to revenue generation through corporate tax collection from business entities. The scientist proposed the author's vision of an equilibrium that maximises expected social welfare through the prism of prices paid by consumers, taxes paid by firms, and profitability/loss of the firm (Antelo, 2016).

In 2022, a study was conducted by scientists M. Bellon, E. Dabla-Norris, S. Khalid and F. Lima on the impact of electronic document management on a company's compliance with tax legislation. The researchers analysed the effectiveness of the work of a firm that uses a quasi-experimental version of electronic VAT invoicing in its activities. Their findings demonstrated that electronic invoices had a positive effect on the timeliness and completeness of the firm's tax obligations to the government.

In their 2022 study, J. Harju, A. Koivisto and T. Matikka examined the impact of corporate taxes on investments and business activity within enterprises. The scientific consensus is that a reduction in the corporate tax rate stimulates firms to increase their investments and affects the overall business activity of small enterprises (Harju (Ed.), 2022). Researchers F. Pobee, A. Jibril, and E. Owusu-Oware (2023) dedicated their article to investigating the impact of taxation on digital financial services on financial accessibility. The authors of the publication revealed the determinants of the use of e-money and mitigation of the impact of taxation on the introduction of e-money by applying the partial least squares method.

An analysis of the impact of tax policy on business digitalisation was carried out by Zh. Chen, Y. Xiao and K. Jiang (2023). Based on data from 2007 to 2019 on the work of Chinese companies, the researchers concluded that tax policies aimed at reducing taxes allow companies to implement digital transformation more quickly and effectively. J. Kouam and S. Asongu (2022) conducted a review of research on the impact of taxation on social innovation and the consequences of taxation on achieving the Sustainable Development Goals, using thematic, chronological, and methodological approaches.

The effects of high-quality technological innovations and environmental taxes, based on Porter's hypothesis, were tested by A. Zhao, J. Wang, Zh. Sun, and H. Guan (2022). The following hypotheses were put forward and argued: environmental taxes increase innovation and bring economic benefits and utility to innovative enterprises, and the impact on the quality of innovation varies in different tax regions. The results are robust, as the study was based on data from Chinese enterprises involved in researching heavy industrial pollution from 2011 to 2019.

H. Anuar, I. Salihu, and S. Obid (2014) conducted a study on the relationship between corporate ownership structure and tax evasion. It is the considered opinion of the scientific community that in order to circumvent the payment of taxes, it is necessary to develop a robust tax policy management mechanism that incorporates effective fiscal instruments.

D. Agrawal and D. Wildasin (2020) analysed the relationship between taxes and profits, and their impact on a company's ability to compete. The authors provided convincing scientific arguments regarding how and when firms can respond to high taxes by shifting profits and reducing operating costs.

Sh. Zhou, P. Zhou and H. Ji (2022) conducted a study on tools for mitigating tax pressure during the digital transformation of enterprises. The researchers developed hypotheses based on processed data from Chinese enterprises registered between 2007 and 2019. This enabled them to demonstrate that digital transformation significantly reduces tax rigidity and evasion (Zhou (Ed.), 2022).

Consideration is given to the scientific and practical products of the international grant project under the KA2 programme. "Cooperation for Innovation and the Exchange of Good Practices in Digital Entrepreneurship Education", which is valuable in terms of forming digital businesses and developing high-tech production in the EU. The project participants developed a step-by-step "launch map" of digital entrepreneurship and indicated the tools and mechanisms for accelerating the digitisation of business processes (Magliocca (Ed.), 2023). Educational and methodological materials with practical case studies have been developed to enable the implementation of training programmes for digital entrepreneurship specialists (Botti (Ed.), 2023; Herold (Ed.), 2022^a, 2022^b).

Recently, works have been published that examine the digitalisation of entrepreneurship, the formation of high-tech production based on Industry 4.0, the application of the latest technologies, the development of AI within Industry 5.0 infrastructure and the institutionalisation of the digital economy ecosystem to promote economic growth (Kraus (Ed.), 2021; Kraus (Ed.), 2023). This study analyses innovative changes that should be implemented in tax policy to enhance the functioning of the financial sector of the economy (Manzhura (Ed.), 2022).

The *article aims* to identify and substantiate the key features of implementing a tax policy for digital businesses, and to develop practical solutions to improve the quality of taxing high-tech production.

The *tasks set out in the article* include identifying and characterising the current principles of digital business taxation, providing a graphical representation of the dependence of the change in the optimal production volume of a digital enterprise (DE) on the

application of robotics, and carrying out a scientific analysis of digital taxes by studying their application in certain countries.

3. Research Methodology

The digital economy differs from the traditional economy in that it is based on digital technologies and online transactions, which have a transformative impact on traditional industries as part of their modernisation process (Javaid (Ed.), 2024). This article aims to investigate whether there is a cause-and-effect relationship between taxes introduced on digital goods and services (DGS) and digitised production, business and revenues to the budgets of countries. Initial information was collected using WIPO materials on the Global Innovation Index 2023, which enabled the degree to which countries implement knowledge and technology results to be analysed (Dutta (Ed.), 2023). Statistical materials from Eurostat (2024) were processed. The peculiarities of taxation in different countries of the world were studied on the basis of OECD data (OECD, 2001; OECD Ministerial Conference, 1998), KPMG (2024), Quaderno (Quaderno Team, 2023) of ministries and departments of various countries (Ministry of Finance of Japan, 2024).

During the review of literature on the research topic and identification of scientific gaps and unsolved problems, scientific publications from the Scopus and Web of Science (WoS) databases were used as a basis. These databases are noted for their relevance, accessibility, openness and depth of scientific development, as well as the wide range of countries represented (China, Austria, Italy, Spain, India, Malaysia, Cameroon, Uzbekistan, Poland, Finland and the USA). This can be considered a strength of the study, confirming its methodological accuracy. The main potential threats of using articles mainly from journals indexed in the Scopus and WoS databases are bias relating to the content of publications and a lack of representation of certain areas of scientific research and subject disciplines. However, these issues do not significantly affect the general bibliographic analysis, which still provides broad comparability in geographical space.

A variety of methods were used for the scientific research to confirm methodological accuracy. The analysis method helped to process the available information in the scientific literature on the principles of digital business taxation. Synthesis and generalisation methods were employed to compile and review a list of scientists' views on the peculiarities of tax collection for digital services from digital enterprises. The graphic method helped to visualise changes in the optimal production volume for a DE. The tabular method was used to present a comparison of tax amounts and the

order in which they were collected. The comparative method was employed to emphasise the debatable aspects of the research and the author’s work.

4. The Role of Knowledge and Technology in High-Tech Production

Technological and technical progress exerts a powerful influence on real interest rates and the rate of return. "As a result, technologically improved real interest rates stop falling. Inventions increase the productivity of capital and eliminate the tendency to decrease the rate of profit" (Samuelson & Nordhaus, 1998). In the last two decades of the 21st century, "the rate of technological progress is increasing sharply, namely in the field of information technologies such as wireless communications and the Internet, ... large-scale innovations have been observed in medicine and biotechnology" (McConnell (Ed.), 2009). Technological innovations have been shown to facilitate e-commerce and have a significant impact on consumer behaviour and the organisation of retail business (Agrawal & Wildasin, 2020). Digital innovations, including IoS, AI, virtual and augmented reality, blockchain and automated vehicles, are playing a pivotal role in the emergence of e-business (Javaid (Ed.), 2024).

H1 There is a significant and direct link between the extent to which the results of knowledge and technologies are used, and the development of high-tech production.

The digital transformation of enterprises improves business performance by creating added value, improving efficiency and reducing risks. With the rapid development of digital technologies such as the

internet, big data, AI and cloud computing, digitisation has become one of the key strategic directions of global technological change (Chen (Ed.), 2023).

Figure 1 shows the GII 2023 ratings of various countries according to the "Results of knowledge and technology" index. It is clear from this that Switzerland is the leader in high-tech production. Sweden, the USA and China also have good ratings. India, Vietnam, Ukraine and Rwanda, however, are ranked 35th, 38th, 65th and 97th respectively, which suggests that they can expect growth in high-technology exports. China and Vietnam are the leaders in labour productivity growth. Meanwhile, Burundi and Ukraine occupy 128th and 129th place respectively.

The advent of the Fourth Industrial Revolution, accompanied by the attendant technical and technological changes that are characteristic of the production and industry of developed countries, has exerted significant pressure on countries undergoing accelerated socio-economic development to invest in the absorption and implementation of advanced technologies and to enhance their innovation capabilities. "Today, consumers learn about goods and services online, and businesses make long-term decisions through the implementation of digital technologies" (Javaid (Ed.), 2024).

In the context of digitalisation, innovation and transformational changes in business practices, the importance of developing knowledge and technologies is undeniable. Technological improvement affects fiscal policy in several ways. For example, technology reduces transaction costs, thereby increasing the mobility of the tax base (globalisation, transport networks). Technologies also make it possible to transfer part of the tax base to transactions that are

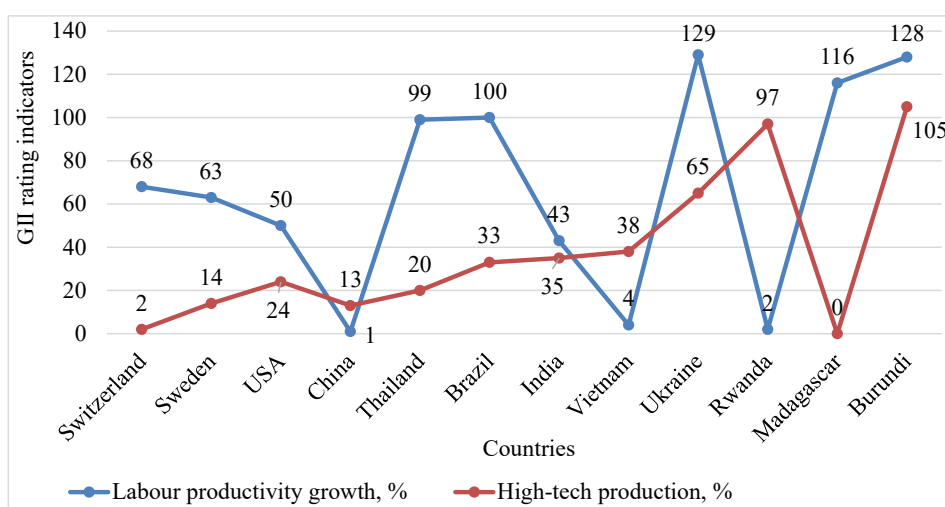


Figure 1. Ranking of GII 2023 countries according to the index "Results of knowledge and technologies" within the sub-index "Impact of knowledge" in the section of groups of some countries of the world by income level

Source: built on the basis of source (Dutta (Ed.), 2023)

easier to control, such as e-reporting and computer audits (Agrawal & Wildasin, 2020). Modern enterprises and firms “prefer better to switch to e-document management than to delay the payment of tax payments... In addition, the costs of implementing technologies are lower than the expected costs due to the reasons for not implementing digital technology by the firm” (Bellon (Ed.), 2022).

H2 There’s a significant connection between the optimal production volume of a DE and robotics in production.

The digital business sector is expanding into integrated digital ecosystems that use software platforms to generate digital value, encourage innovation and enhance sustainability. This can be achieved with the help of digitized networking of “goods, assets, people, and processes that hyper-fast replace old value chains with the participation of business partners” (Javaid (Ed.), 2024).

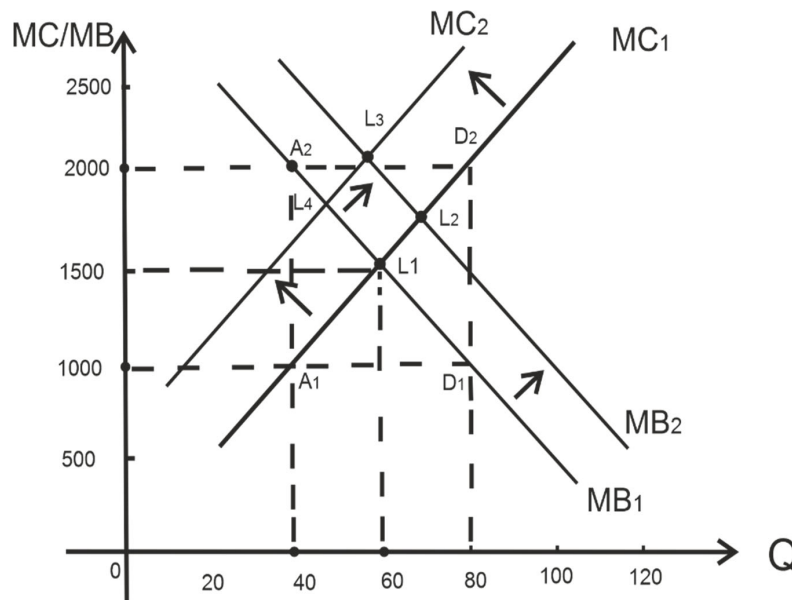
5. The Impact of Robotics on E-Enterprise

In Fig. 2, an attempt is made to present a graphical interpretation of economic decision-making based on a comparison of the benefits and costs incurred by a DE. According to the foundations of economic theory, economic activity is increased as long as marginal benefits exceed marginal costs. If marginal benefits decrease and marginal costs increase, then economic activity loses its meaning. In Fig. 2, digitised

business activity is considered optimal if $MB = MC$, i.e., at point L_1 (60 thousand units). In order to achieve the optimal amount of digital production, the output of manufactured products (in the example, the number of units of robotics) should be increased to the level at which marginal benefits (MB_1) equal marginal costs (MC_1). The points located on the right side of the MB_1 and MC_1 curves indicate that it is not worth allocating more resources, because the costs are greater than the benefits (McConnell (Ed.), 2009).

Analysing Fig. 2, it becomes clear that if 40 thousand units of robotics were produced, then the marginal benefit from an additional unit (point A_2) would exceed the marginal cost (point A_1). In monetary terms, MB_1 is 2,000 monetary units, while $MC_1 = 1,000$ monetary units. Thus, when consumers purchase robotics at a value of 2,000 monetary units, with a marginal cost of 1,000 monetary units, they are in a favorable position. Fig. 2 demonstrates that net profit can be obtained until the digital production of robotics reaches 60 thousand units (point L_1).

If digital production reaches 80 thousand units of robotics, then the production process will be unprofitable. This is caused by the fact that the marginal cost (MC_1) of an additional unit will be equal to 2,000 monetary units (point D_2), while the marginal benefit (MB_1) will be only 1,000 monetary units (point D_1). From the graphical analysis, it becomes obvious that one unit of robotics provides benefits of



where MB – marginal benefits (benefits from implemented robotics); MC – marginal costs when using robotics; L_1 is the equilibrium point of marginal costs and benefits from robotics; MB/MC – marginal benefits/costs, monetary units from the application of robotics; Q – the number of robotics units, in thousands.

Figure 2. Graphical interpretation of the change in the optimal volume of production by a DE

Source: compiled on the basis of the source (McConnell (Ed.), 2009) and own observations

1,000 monetary units while costing 2,000 monetary units. Under such conditions, the supply of robotics is not profitable.

Manufacturing in a DE is based on hyper-connectivity, i.e., the growing interconnection of workers, organizations, and machines through the Internet, mobile technologies, and the Internet of Things (IoT) (Javaid (Ed.), 2024). “The mitigating effect of digital transformation on tax sustainability is more noticeable in enterprises with weak internal control and in regions with a low level of tax control and high environmental uncertainty” (Zhou (Ed.), 2022).

6. Principles of Taxation

A product produced by a virtual business, e-production in the course of digital entrepreneurship is subject to taxation. This product is considered to be digital, and as such, “that is stored, delivered, and used in an electronic format; it is a product and service that a customer receives via e-mail, downloads it from the Internet, or registers on a website” (Quaderno Team, 2023). “Taxation of digital money services can affect aspects of creating financial inclusion... taxation is a revenue-generating tool for the government and affects the socio-economic goals of the country” (Pobee (Ed.), 2023). Table 1 provides a general description of A. Smith's principles of taxation.

Modern principles of taxation of digital entrepreneurship, e-commerce and Internet trade include:

- Neutrality. Adherence to this principle ensures that tax systems are neutral with regard to various types of e-commerce. According to the OECD (2001), tax obligations should be the same for traditional business activities and digital entrepreneurship.
- Certainty and simplicity. Taxpayers must clearly understand the rules of taxation, including the calculation procedure and the time and place of tax payment (OECD, 2001).
- Efficiency. According to the OECD (2001), taxpayer costs for tax administration and compliance with all tax law requirements should be kept to a minimum.

- Stability. Taxpayers should have a consistent and predictable Tax Code. “Governments should avoid adopting temporary tax laws, including tax holidays, amnesties and retroactive changes” (Enache, 2024).
- Flexibility. The tax system for digital entrepreneurs must be dynamic and flexible, evolving in line with technological and commercial developments (OECD, 2001).
- Transparency. The tax policy should clearly define what the taxpayer must pay and when (Enache, 2024; OECD Ministerial Conference, 1998).
- Justice. Taxation rules should ensure the correct tax amount is calculated in a timely manner. The appropriate conditions must be created to prevent taxpayers from evading their payments (OECD, 2001; OECD Ministerial Conference, 1998).

H3 The amount of tax collected for DGS is inversely related to the development of digital business.

Taxes affect the affordability of development for a DE, "they do not unfairly burden those who are financially vulnerable. By providing transparent communications about taxes and their collection, users have the opportunity to make informed decisions" (Pobee (Ed.), 2023).

7. Taxes on Digital Products and Services

Fig. 3 shows some of the digital taxes applied in the area of taxation of digital entrepreneurship and virtual businesses.

E-commerce transactions are taxed at the point of sale, whereas cross-border purchases are taxed at the point of origin (Agrawal & Wildasin, 2020). Digital finance can affect small businesses' tax compliance by easing corporate finance restrictions and collecting tax-related "digital information" (Ouyang (Ed.), 2023). “Electronic tax invoices allow tax authorities to improve their understanding of cross-industry relationships and allow for real-time analysis of economic activity and forecasting of revenue trends” (Bellon (Ed.), 2022). Digital transformation of business reduces tax dependency (Zhou (Ed.), 2022).

Table 1

Characteristics of the principles of taxation according to A. Smith

The principles	Understanding the principles of taxation according to A. Smith
Proportionality	“The subjects of the state should be able to participate in the maintenance of the government according to their ability and strength, that is, according to the income they enjoy under the patronage and protection of the state.”
Certainty	“The tax that each individual is obliged to pay must be precisely defined and not arbitrary. The term of payment, the method of payment and the amount of payment – all this must be clear and clear to the payer and to any other person.”
Convenience	“Every tax should be collected at the time, or in the way, when and how it should be most convenient for the payer to pay it. Tax on rents from land or houses, paid exactly at the time when it’s most convenient for the payer to pay it or when he will soon have the money in hand to pay it.”
Justice	Every tax should be so conceived and designed that it takes and keeps from the pockets of the people as little as possible beyond what it brings to the state treasury.

Source: compiled on the basis of (Smith, 1776)

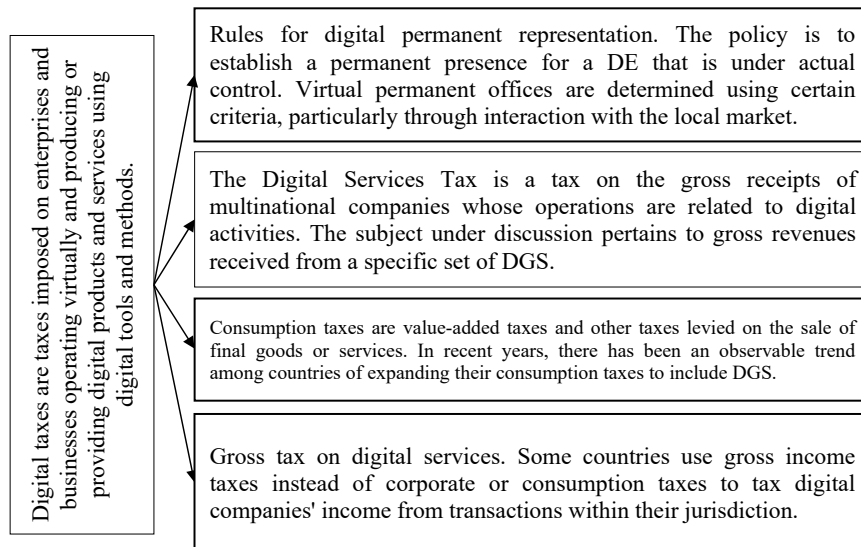


Figure 3. Some digital taxes applied in the area of taxation of digital entrepreneurship and virtual business

Source: grouped based on sources (Borders (Ed.), 2023; Enache, 2024; Kwan (Ed.), 2022)

Table 2 presents the general characteristics of taxes on DGS and virtual businesses in some countries around the world. The analysis shows that certain DGS taxes have been in place for 5–8 years. Taxes on DGS are currently being institutionalised. The tax rate varies from 1% to 20%, and the collection rules are periodically adjusted as the tax base expands.

Depending on the location of the buyer of the digital product or service, each country needs to improve its tax collection mechanism. This is due to the growth of cross-border e-commerce. The need to improve the recovery mechanism is also caused by the fact that the lack of an offline presence in the country of sale creates serious problems for sellers, as all countries have their own specific trade conditions (e.g., bookkeeping, available software, document flow features, and business communication languages), which are also subject to change. For digital entrepreneurship and virtual businesses, these processes are resource-intensive and time-consuming (Enache, 2024).

In the future, it would be worthwhile to implement strong tax incentives for the majority of new innovative and digital enterprises. It is the contention of the present study that a five-year exemption from taxation for digital entrepreneurs would be a correct course of action, albeit one subject to certain conditions. Among these conditions, the following rules must be observed:

- Production work using domestic raw materials, with labour exclusively sourced from the domestic labour market.
- The development of an effective mechanism to support the digital marketing policy of a DE, with the aim of finding new customers for its products and services both in the country and abroad.

- In order to attract the interest of a domestic investor in investments, a DE must work within the framework of the work of industrial parks in the national innovation ecosystem of the country.

Why is this beneficial to the economy? The answer is as follows: at the formation stage, an innovative DE, like any other business, pays for communal services and electricity, settles with contractors and business partners, pays its employees' wages, and obviously pays taxes at each of these stages (in the so-called first round). In addition, DE creates jobs and stimulates demand among the population, thereby boosting the national economy. When building a smart factory, the investor pays taxes that benefit the economy by forming an innovative economic space. Consequently, it is worth supporting such an investor by offering tax incentives for risky entrepreneurship. In other words, economic activity leads to a multiplier effect, whereby all participants in the innovative digital business process pay taxes at each stage, thus filling both local and state budgets. This is clearly evident from the work of digital enterprises and virtual businesses. Therefore, introducing tax incentives for innovative digital entrepreneurship in the initial stages of its development will benefit the country's economy in the medium and long term.

Avoiding double taxation reduces the tax burden of digital enterprises, thereby positively influencing financial transformation processes (Chen (Ed.), 2023). Digital entrepreneurship is transforming the provision and consumption of products and services due to Industry 4.0 technologies and services. Digital innovation enables businesses to adapt their traditional models and develop new ones (Javaid (Ed.), 2024).

Table 2

General characteristics of taxes on DGS and virtual business in 2015–2024 of some countries of the world

Country	The name of the tax	Taxation	Characteristic features, recovery procedure
Turkey	Gross tax on digital services	15%	Charged from January 1, 2019, from the service provider and digital advertising intermediary.
	VAT	20%	Charged from 2018. If a foreign company is VAT-registered in Turkey, it doesn't need to pay VAT. Instead, the buyer pays all Turkish VAT using the reverse charge mechanism. Although there is no sales volume threshold for registration, there is a simplified process for registering with the Turkish tax service.
	Tax on digital services	7,5%	Valid from March 1, 2020, this applies to online services, content sales, and paid services on social networking websites. It will be charged to companies with more than 801 million USD in global revenue and 615.896 million USD in revenue in Turkey.
Spain	Tax on digital services	3%	Implemented since January 16, 2021. It is collected from internet services, internet advertising and the sale of user data. The tax applies to companies with more than 801 million USD in global revenue and more than 3.2 million USD in revenue in Spain.
Canada	Tax on digital services	3%	Introduced from June 28, 2024. Revenues from online business models: Internet markets, social media, internet advertising and user data. Calculated on the basis of data for a calendar year in which revenues exceed 20 million CAD.
		5%	Introduced from January 9, 2024 to support the Canadian broadcasting system. Charges apply to online broadcasts, including: Internet advertising; digital television, music and video content when viewed or downloaded online; and intermediary platforms.
India	Tax on digital services	6%	It has been in place since 2016 for gross income from online advertising services provided by non-resident companies.
		2%	From 2020 onwards, a levy will be imposed on the income of non-resident e-commerce operators without a permanent establishment in India. The annual income threshold is 1,198 USD. However, starting in August 2024, the fee will be cancelled due to improper collection.
	Gross tax on digital services	1%	Charged from 2020 on the value of goods and digital services provided by an e-commerce operator using its e-device or e-platform.
	Tax on goods and services (GST)	18%	All products and services are subject to a 18% Goods and Services Tax (GST). The country has no threshold for tax registration. Tax is charged on B2C sales.
Japan	VAT	10%	Introduced in 2015. The threshold for taxpayer registration is 64,898 USD. This tax is levied on all B2C e-commerce transactions provided by foreign companies to Japanese consumers. In a B2B transaction, the "reverse charge" mechanism is used, whereby the recipient is responsible for dealing with the tax, not the seller.
Israel	VAT	17%	Non-resident companies must pay a 17% sales tax on digital services sold to local customers. There is no registration threshold. Once they have made their first B2C sale, foreign companies must register as Israeli VAT payers.
USA	State special (State-specific)	The amount of tax in different states is different	Retailers with annual sales exceeding 100,000 USD, or who conduct more than 200 transactions within the state, are required to register and pay sales tax there. This includes B2B and B2C transactions, though some states may set their own thresholds.

Source: compiled on the basis of sources (Annie, 2024; Borders (Ed.), 2023; Hadzhieva, 2016; Enache, 2024; Eurostat, 2024; KPMG, 2024; Ministry of Finance of Japan, 2024; Quaderno Team, 2023)

Among the measures that could have a positive effect on the taxation of digital business and entrepreneurship, it's worth mentioning:

- Introducing different tax rates depending on the size of the transaction, and providing tax incentives for using e-money for certain activities (Pobee (Ed.), 2023). For example, "a reduction in the corporate tax rate causes a mechanical increase in the firm's available cash resources so that the firm has higher after-tax

profits... it's likely that in the long run it will have higher sales, an increase in the costs of production resources and labor costs" (Harju (Ed.), 2022).

- Small amounts of transactions should be exempt from taxes to make digital money transactions accessible to a wider range of people. To encourage people to use digital money services, it is important to develop tax policies that promote their use (Pobee (Ed.), 2023).

– In a dynamically developing economy, avoid implementing a taxation policy based on the definition of business activity, because digital taxes aimed at a specific business model are often introduced in a number of countries around the world as the economy undergoes digital transformation (Enache, 2024).

In terms of market conditions, management and the innovative development of the country, as well as existing "healthy" competition, it is the freedom of choice and the pursuit of one's own interests and personal rewards that act as powerful incentives (McConnell (Ed.), 2009). Incentives open up new opportunities and technical horizons, creating a technological "breakthrough" based on the "virus" of innovation and a digital "leap" in industry and production. Inventors and startups are rewarded financially for innovative products, digital services and the digitisation of production. Consequently, the market system of the digital economy tends to incentivise the widespread adoption and relatively accelerated development of ultra-sophisticated means of production. The present discussion pertains to the following subjects: digital tools, "smart" factories, the latest means of communication, digital marketing, CRM–sales systems, grid technologies, digital insurance and digital logistics systems.

8. Conclusions

As part of the ongoing research into improving the taxation of digital enterprises, this study focused on identifying the relationship between the level and

types of taxes and the factors that can ensure growth in tax revenues and promote the development of digital entrepreneurship, rather than its decline due to high taxes or the use of robotics. The results of the study have enabled the authors to propose recommendations for optimising the taxation of digital enterprises with a view to improving the digital business taxation system.

Assessing the impact of factors on the digital business taxation system confirmed that digital transformations in entrepreneurship today are global, dynamic and irreversible. The digitalisation of business processes is integral to long-term economic development and prosperity. The introduction of new technologies has been proven to improve monitoring and reduce the threat of late tax payments by businesses. Furthermore, digital entrepreneurship has emerged alongside the development of inexpensive and fast ICT, which has gradually begun to improve business processes and models through digitisation.

Future research should focus on identifying effective fiscal instruments for taxing e-commerce and international internet trade. The threshold values of global and domestic income for digital enterprises need to be adjusted, because it is clear from the examples of various countries that have introduced this tax that it is currently paid by large enterprises and transnational corporations. This approach will enable each country to determine its own pace and approach to joining the international system of e-commerce and internet trade taxation, ensuring it is as aligned as possible with the state of the economy and the readiness of society for dynamic changes.

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