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DIGITAL TRADE AS AN IMPETUS FOR NEW REGULATORY INITIATIVES

ABSTRACT

Digital technologies are affecting all types of global flows, including trade and migration flows, thus reducing spatial, temporal and cost barriers. Digital trade is an important part of these new global trends, supporting and changing the globalization process. The main aim of this paper is to identify key challenges in regulating and governing digital trade on different levels, as each level of governance encounters specific challenges. The contribution of the paper is twofold. First, it gives an overview of key digital trade regulatory issues at the national, regional and global level. Second, some specifics of digital trade are explored with the purpose of gaining a broader understanding of the need for new, or at least modified trading rules that would support digital trade and the digital economy.

Keywords: Digital trade, regulatory framework, WTO

1. Introduction

Digitalization is at the center of the new industrial revolution that is more comprehensive than any before. Reduced barriers between markets and inventors can be distinguished as a central feature of this new revolution due to the application of novel digital technologies. Digital technologies are altering all types of global flows, including trade and migration, thus reducing spatial, temporal and cost barriers. Digital trade represents a growing global trend, supporting and changing the globalization process. Digital or electronic trade can be defined as production, advertising, sales and distribution of products through telecommunication networks (Bachetta, 1998). Digital trade can also be described as a process of buying and selling through computer networks. It includes the exchange of physical

goods as well as the exchange of intangible goods and services (UNCTAD, 2015). In other words, digital trade includes new and different services as well as the exchange of traditional or physical products traded through the use of digital technologies. Digital trade is enabled by digital technologies, but the delivery of goods and services does not necessarily have to be carried out digitally. In this case, when physical deliveries are made, existing trade rules and administration are implemented. One of the most common categories of products that are digitally exchanged are audio-visual media and software, because those are digitized more easily than other types of goods. Digital services, on the other hand, can be defined as a broad set of services that can be delivered through the ICT network (World Economic Forum, 2018). The most common type of services that are provided digitally are online gam-

ing. Telemedicine, customer support, travel planning, and such, are some additional examples of services that can be provided digitally. The fact that an increasing number of products is being traded digitally and that differentiating between digital products and services is sometimes complicated, specific rules and policies have to be designed in order to enable monitoring and governing of those flows, thus digital trade regulations are the focus of this paper.

Digital trade is characterized by an intricate international network of production. It involves comprehensive co-operation between different stakeholders in different parts of the world and in different time zones. Digital trade determines data flows in global supply chains by simplifying the administration process or contractual obligations related to cross-border transfer of inputs. As such, digital trade can result in savings for traders through faster flows of goods and greater efficiency at border crossings in cases where trade involves lengthy administration. It allows businesses to fulfil certain regulatory obligations more easily and efficiently, at lower cost, and enables them to spread to international markets. Reducing trading costs and reducing paperwork is particularly important for small and medium-sized enterprises that use digital trade to access international markets. In addition to the impact on trading costs, the introduction of digital trade has inspired innovations in global supply chains. Examples are just-in-time delivery systems. By applying such an approach, companies no longer have to hold large stocks because products are produced when needed and in ordered quantities. Contemporary supply chains must adapt to constantly changeable and shorter product life cycles, consumer tastes and rapid technological development (World Economic Forum, 2017)¹. With the development of digital trade, new intermediaries have resurfaced that offer distribution and logistics support services to customers. Products that are delivered from one location to another are more easily monitored by the use of sensors or other digital solutions to improve operational efficiency and reduce costs. New technologies are being developed that will enable and significantly expand the possibilities for digital exchange. The development of three-dimensional (3D) or additive printing will greatly change the global flow of physical goods. Instead of producing large quantities of goods in one location and delivering them to another location, businesses will be able to send digital designs over the Internet and the use of a 3D printer will allow smaller quanti-

ties to be produced locally. This will change the way products are traded and the existing monitoring systems, customs or VAT rules will not be adequate.

Digitalization changes and shapes the habits and needs of consumers. The once unimaginable trend of buying products online has become a widely accepted practice. Although the development of hardware and infrastructure is important for the growth and development of digital trade, new ways of applying technology and information, including social networks, cloud computing and Big Data have become an integral part of digital trade. Consequently, rules and laws about customer privacy, security and data protection need to be ensured.

There are opinions that governments can more effectively solve the security problem through digital trade and ensure that there are no hidden threats in commercial shipments. Digital trade can play an important role in cross-border regulatory co-operation. Many countries are developing a single window electronic system through which the requested documents and other evidence will be submitted when importing or exporting. Facilitation measures and market access are therefore of great importance. Yet, digital protectionism is on the rise and it has been characterized by a series of restrictions on digital trade (BSA, 2014): limiting cross-border data flows, discriminatory procurement rules, stringent security rules, national technology standards, tariffs on information and communication technology (ICT) products, and weak protection of intellectual property rights. It limits digital flows and poses barriers for countries to participate in digital trade. The digital divide between developed and developing countries can also be a barrier to further integration of the digital economy (WTO, 2018). To enable digital trade in all countries it is necessary to strengthen capacities, provide Internet access, necessary digital skills and adequate institutional infrastructure and regulation.

The main aim of this paper is to identify key challenges in regulating and governing digital trade on different levels, as each level of governance encounters specific challenges. The contribution of the paper is in identifying and exploring policy concerns thus leading to better understanding of the need for a new, or at least modified regulation of digital trade. In line with the practice of scientific research, methods of analysis, compilation and deduction have been applied to achieve the defined research objective. The former two methods have been used with the intent of defining digital trade and its impact on

trade and businesses, as well as for exploring digital trade governance issues at different levels, with the purpose of providing a broader understanding of this subject. Through the deduction method certain conclusions were made about the major digital trade regulatory concerns at the national, regional and global level. Conclusions were made about the current situation and potential solutions in regard to digital trade governance. The paper consists of five parts. After the introduction follows the review of literature regarding digital trade and its significance. The third part of the paper contains methodology description, while the fourth part gives an overview of the regulatory framework and the governance issues of digital trade at different levels. The final part of the paper is the conclusion.

2. Literature review

Both the theoretical and the empirical literature on digital trade is rather scarce due to the fact that it is a relatively new topic that emerged on the eve of the new industrial revolution, and due to the lack of available and comparable data. However, based on the existing work, there are some common standpoints regarding the changes digital trade will bring to the way trade is done, its effects on the production process and productivity, and adjustments in the regulatory framework.

The growth of the digital market and the success in the upgrading, sometimes even in substituting of traditional markets, is evidence that digital trade is a new trend which can reduce communication and other operating costs. Moreover, it is commonly accepted that digitalization reduces marginal costs of production and distribution on the one hand, while allowing for wider access to global trade, on the other hand. In this way, the cost of participating in global trade decreases for companies of all sizes, as well as for individuals. Internet of Things, as one type of digital technologies embedded into the Fourth industrial revolution, enables monitoring and management of physical objects electronically (Mărcuț, 2017) and it will further stimulate and accelerate trends of digital exchange. All of the mentioned affects and changes the globalization process, which will then affect people's lives and business performance in developed and developing countries.

Digital trade changes the scope, the volume and the speed of trade. It enables businesses to access a large number of customers through the Internet and

outsource specific activities that enable productivity growth. Moreover, digitalization is changing the set of activities that companies engage in and causes rapid growth of cross-border data flows. Three quarters of businesses have an online presence and almost as many engage in digital trade (OECD, 2015). Also, research has shown that the development of digital trade has increased exports of small and medium-sized enterprises, and has contributed to the growth of trade in developing countries where logistics and transport costs are relatively high (Lund, Manyika, 2016; Lopez-Gonzalez, Ferencz, 2018).

In addition to rising competition, security and data privacy issues, the digital divide and determining whether digital technologies really boost productivity represent important questions and challenges. Some economists claim that digital technologies increase productivity significantly less than innovations in the past (Gordon, 2012), partly because they reduce the benefits of programming; partly because certain human tasks cannot be replaced by computers; and because most digital technology investments are driven by the need to preserve market share or to replace tangible products with digital ones. On the other hand, there are those who claim that digital technologies increase productivity (Barua et al., 2013), and those who claim that digital technologies raise productivity only in certain sectors due to a different diffusion pace (Clavino et al., 2018; Aghion et al., 2017). However, sectors that have achieved rapid productivity growth are rapidly reducing their share in the economy while sectors with slow growth in productivity are increasing their share in the economy (Aghion et al., 2017). Consequently, overall productivity of the economy has been reduced due to stagnant sectors that represent a larger share among all sectors.

As mentioned, digitally enabled trade brings forth the role of the Internet. The dialogue between the trade community and the Internet community needs to be strengthened (UNCTAD, 2017). The inclusion of the Internet community represents an opportunity for stakeholders to advance and create a dynamic digital economy. Trade policy makers can benefit from collaborating with the Internet community by ensuring that relevant agreements are operationally feasible and politically viable with less negative consequences. Trade negotiations should involve a wider analysis and dialogue to encourage collective learning, development of international standards and convergence at the national level.

Lately, more attention has been given to policies and rules that regulate digital trade at the national, regional and global level (Darsinouei, 2018; Sampath, 2018; Wu, 2017; Lopez-Gonzalez, Jouanjean, 2017; Monteiro, Teh, 2017). The regulatory framework needs to be adapted to contemporary conditions in order to allow for more efficient digital trade. However, it is also necessary to note that countries have different policy stances on issues such as privacy or security and there will be certain differences in national rules and regulations (Lopez-Gonzalez, Jouanjean, 2017). Traditionally, trade rules have been determined based on the nature of what is being exchanged. In other words, trade rules for goods were built on the premise that it is possible to identify the geographic origin of the product and attach a tariff or other condition on its international sale, usually at the point where the product crosses the border. Digital products, by contrast, are not bound by geography, nationality or even physical properties (Dawson, 2018). In the digital age, the difference between a product and a service is no longer so clear and there is a greater need for more efficient cross-border delivery of goods, support services and for providing data and information about the production process and products. With more small packages crossing borders, more efforts will be needed to identify the impact on customs authorities and to determine the impact of different *de minimis* provisions on both firms and consumers (Lopez-Gonzalez, Jouanjean, 2017). Acceptance of e-signatures and e-documents will contribute to relieve trade transactions helping SMEs and consumers alike. Digitalization of information enables more effective identification of risks and management of global supply chains since large volumes of data are needed to meet the growing demands for the tracking and traceability of products across international borders.

It is often said that the most important issues related to digital trade can be divided into three categories (Darsinouei, 2018): (1) market access which includes a wide range of topics such as customs duties, movement of natural persons and valuation issues, (2) rules and regulation commitments including intellectual property rights and competition, and (3) facilitation through e-signatures, paperless trading or digital authentication. Governments have a responsible task to create and modify the regulatory and tax framework and policies in order to adapt to changes caused by digitalization and digital trade. It is necessary to find solutions to the problem of

data transfer security, data privacy protection and Internet governance. Each country should develop initiatives, policies and measures that fit its priorities and national goals (UNCTAD, 2017)².

3. Methodology

The main objective of this paper is to identify the key challenges in regulating and governing digital trade on different levels. The paper aims to provide an overview of the existing regulations and to clarify the need for modifications of the trade regulatory framework so it includes digital trade, a fast growing global trend. Since digital trade blurs the line between goods and services and includes a large amount of data flow, there is a need for appropriate and updated regulations that would enable better monitoring of those digital flows. There is also an important regulatory dimension that covers issues such as privacy, security and the like. Besides reviewing the literature in the field, the paper also describes some of the pressing issues regarding the governance of digital trade at the national, regional and the multilateral level by compiling and reviewing different papers and studies. Writing this paper was based upon previous research elaborated in the literature, studies and other relevant sources. However, since digital trade is still modestly represented in the literature, there are not many empirical research results, so conclusions are more theoretical. In accordance with the practice of scientific research, methods of analysis, compilation and deduction have been applied in this paper. The former two have been used for the purpose of defining digital trade and explaining its role in the global market and also for exploring digital trade governance issues at different levels. Through deduction method certain conclusions were made about the development of digital trade and the regulatory framework concerns in order to provide a broader understanding of the significance of digital trade and the necessity to modify or create a new regulatory framework. Governance of digital trade is analyzed at the national, regional and multilateral level, identifying the most important issues and potential solutions.

4. Overview and discussion over the digital trade regulatory framework

While digital trade is rapidly developing and expanding, trade rules do not follow the same pace

of change. In this part of the paper, an overview of different governance issues is given for the purpose of analyzing existing challenges and possible solutions. Governance of digital trade is analyzed at the national, regional and multilateral level. Concerning the governance on the regional level, special attention was given to the European Union (EU).

Just as the multilateral trade rules had to be changed during the 1980s, which was done during the Uruguay round of negotiations under the auspices of the World Trade Organization (WTO), today there is the need again to adjust trade rules to ensure consistency with the growth strategies in the digital economy. The problem is that the digital economy is not well understood by most, and policy discussions and decisions do not capture its value appropriately or assign it in any meaningful way. The Internet and the way it serves as the backbone for trade and innovation creates a great overlap between trade, individual privacy and development (Sampath, 2018). There are at least three types of challenges before policy adjustments needed to better regulate the digital economy (BSA, 2014)³:

- Modernizing trade rules to reflect the trend of digital trade. This implies the inclusion of innovative services in trade agreements, open borders for cross-border data flows, the abolition of specific requests for locating servers or other infrastructure.
- Promoting the development of technological innovations in order to take advantage of future opportunities. It is primarily about establishing the protection of intellectual property rights and encouraging the application of voluntary, market-based technological standards.
- Allowing entry of different competitors to provide customers with access to the best global goods and services. Here, public procurement practices and the selection of goods or services based on the degree of satisfaction they bring, instead of exclusively on the basis of their origin, are of great importance.

There has been a new wave of digital protectionism in many of the fast-growing markets (Holleyman, 2012). A number of countries have already adopted or plan to adopt policies that would significantly limit the cross-border data flows or require data servers to be located within their jurisdictions as

a prerequisite for serving the local market. Such constraints significantly reduce the benefits from the economy of scale and the benefits of the digital distribution of services. It is therefore a challenge to find a balance between protecting data privacy from prudent policies that prevent the cross-border exchange of data-based services. National policy design should seek to protect their citizens and nurture digital trade by enabling the movement of data across borders, but it should not neglect that countries have different policy stances on issues such as privacy or security (Lopez-Gonzalez, Jouanjean, 2017).

Furthermore, the government represents one of the largest consumers of information and telecommunication (IT) services. However, when purchasing these services, the government often imposes restrictions on foreign suppliers which makes it difficult or impossible for them to serve the market. This prevents foreign suppliers from getting jobs in the local market and the government has no freedom to choose the best available products or services.

Cyber security is another important issue (Dawson, Omar, 2015). Governments often use security as a justification to impose certain barriers regarding the supply of software or other IT equipment from foreign suppliers or setting up superfluous tests or certification requirements. Also, the role of technology standards in facilitating global digital trade is important. Technological standards that are market-accepted and established on a voluntary basis through industrial processes will facilitate the development and transfer of new products or services. These would also prevent favoring domestic suppliers.

Approximately 30% of regional trade agreements reported to the World Trade Organization (WTO) contain rules on digital trade (Monteiro, Teh, 2017) and the rules on transparency and the most favored nation, very similar to those within the WTO itself. In fact, more than 69 regional agreements worldwide have included standalone e-commerce chapters (Darsinouei, 2018). The European Union is often used as an example of a structured regulatory framework. The main part of EU legislation regulating digital trade is the E-Commerce Directive 2000/31/EC. It covers business to customer (B2C) and business to business (B2B) transactions as well as services provided free of charge to the recipient. It does not apply to traditional radio broadcasting, television broad-

casting, most legal services, or to gambling services. Moreover, in 2015 the EU released the Digital Single Market strategy to create an open, interconnected and digital single market and to maximize the positive impact of the digital transformation on society and on business activity in the EU. E-commerce is one of the cornerstones of the Digital Single Market strategy but there are some barriers to realizing its full potential including geo-blocking, that is, preventing customers' access to products or services from a certain country, too many differences in the member states contract law, difficult VAT registration and declaration procedure, and data protection issues. Regulatory fragmentation is a major obstacle to innovation in Europe (Aslund, Djankov, 2017; Mărcuț, 2017). In order to resolve some of the mentioned obstacles, the EU has worked on (European Commission, 2019)⁴:

- the revised Payment Services Directive and new rules on cross-border parcel delivery services that are already in force
- new rules to stop unjustified geo-blocking
- revised consumer protection rules that will enter into force in 2020
- new VAT rules for online sales of goods and services that will enter into force in 2021.

In addition, the EU is working on revolutionizing its industries and addressing key issues affecting businesses now and in the future by strong digital cooperation with various trading partners such as Japan and the US.

Regional or bilateral agreements are generally more adaptable and can be tailored to the needs of partners. But while they benefit partner countries, they can lead to a large number of different policies and to marginalization of those countries that do not have the institutional, legal or technical infrastructure needed to engage in complex trade negotiations, which is why the importance of the multilateral trade framework is still recognized. E-commerce was introduced in the World Trade Organization agreements at the end of the 1990s. However, the speed of digital technology development and the growth in digital trade volume could not be predicted. Hence, although the WTO has certain rules for governing the ICT products market, these rules are not adapted to rapid technological development and a wide range of newly devel-

oped goods or services are not covered by these rules. Having in mind the difficulties in distinguishing between digital products and services it can be said that a different set of trade rules affect different aspects of digital trade.

The General Agreement on Trade in Services affects the flow of digital trade because it includes the principle of the most favored nation and transparency and rules on trade in services. Within this agreement there are additional rules for telecommunications and financial services which are now often delivered digitally.

Negotiations are ongoing within the WTO for a new Trade in Services Agreement. However, participation in the agreement is voluntary and includes only a small percentage of the WTO's members. While a number of members have made far-reaching commitments for market access and national treatment of computer and related services, there are variations in the levels of commitments and many of the countries have not made commitments in the other sectors (Burri, 2017)⁵.

Other rules within the WTO are also important for digital trade. Given that these are physical goods that often have to cross international borders the rules of the General Trade and Tariffs Agreement have an important role. The Trade Facilitation Agreement includes requirements for applying or maintaining measures that facilitate imports and exports. On the one hand, simplified and more efficient customs procedures are important for traditional merchandise trade as they provide faster and cheaper delivery. On the other hand, the technological development that has made it possible to modernize these procedures with greater application of technology can further facilitate digital trade rights (Lopez-Gonzales, Ferencz, 2018). Additive printing may raise interpretation challenges regarding rules of origin or customs valuation. Digital technologies enable the exchange of goods including goods ordered online. The aim should be to reduce tariffs on digitally traded goods by adjusting and expanding existing trade agreements. In addition to trade barriers to digital trade, there is a further problem of protection of intellectual property rights. This is particularly important in software, as intellectual property rights are a significant barrier to sales and performance of international companies and present a high security risk for end users, because if they use unlicensed products, they do not have access to additional or elementary upgrades to protect them from various viruses (Lopez-Gonzales,

Ferencz, 2018). Also, having in mind that most of the global research, development and innovation activities are concentrated in a small number of developed and rich countries and in few developing countries, it is not surprising that there are different approaches to intellectual property rights (Breitweiser, Foster, 2012). Until 1995, the international intellectual property regime consisted of several voluntary conventions under the jurisdiction of the World Intellectual Property Organization. By strengthening the process of globalization, trade and investment flows as well as technological development, differences in national standards for the protection of intellectual property rights have become particularly important. It was precisely from this that the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) was developed as a result of the Uruguay round of trade negotiations. According to this agreement, countries may have their own intellectual property rights policies, but minimum standards are required that must be included over a certain period of time. This question is especially important in the digital economy where innovation and intellectual property rights play a crucial role in development.

The Agreement on Technical Barriers covers government measures on technical rules and standards applicable to ICT and electronic products

(e.g. standards for telecommunications network governance). The Information Technology Agreement includes rules on trading ICT products, some of which are part of the infrastructure required for digital trade, such as computer and telecommunications equipment. It also includes the principle of the most favored nation and eliminates tariff barriers on ICT products.

The stalled Doha round is another obstacle which not only impedes progress in related trade areas, but also questions the role of the WTO, due to a lack of deliverables and puts further doubts on the success of negotiations within the WTO in general (Baldwin, 2016).

In addition to the WTO framework, digital trade is also discussed at the plurilateral level. Mostly within the framework of negotiations on mega-regional agreements that merge countries of different sizes, development levels and cultural backgrounds. Plurilateral trade agreements involve several countries with a common interest but do not involve all WTO countries.

The summary of the most important governance issues specific to the national, regional and multilateral level is given in Table 1.

Table 1 Digital trade governance issues

Level	Potential challenge	Possible solutions
National level	<ul style="list-style-type: none"> • Market access rules • Restrictions on foreign suppliers • Low level of digitization • Limiting cross-border data flow • Low level of knowledge about the digital economy 	<ul style="list-style-type: none"> • Modernizing trade rules • Introduction of technological innovations • Introduction of technological standards • Public campaigns for raising awareness about the digital economy
Regional level	<ul style="list-style-type: none"> • Differences in the contract law • Different VAT rules • Geo-blocking • Customer protection • Limited cross-border data flow • Digital divide • Intellectual property rights 	<ul style="list-style-type: none"> • Introduction of common contract law • Limiting geo-blocking • Chapter on intellectual property rights • Linking single windows • Enabling cross-border data flows
Multilateral level	<ul style="list-style-type: none"> • Modernizing trade rules acceptable to all members • Digital divide • Diverging views between less developed and developed countries • Intellectual property rights • Unfinished Doha round of negotiations • Plurilateral agreements 	<ul style="list-style-type: none"> • Dialogue on the future of the multilateral trading system • Clear statement regarding classification of digitally traded products and services • Ensuring that existing GATS rules and obligations unambiguously apply to digital trade transactions • "Multi-speed" regulations

Source: Author's compilation

Restrictions on data flows and on foreign suppliers are some of the most common restrictions to digital trade. Understanding the benefits of the digital economy, closing the digital divide, ensuring market competition and access, and focusing more on consumers should be a priority for all countries. New initiatives to modify and expand existing trade rules and policies should be presented and the regulatory framework should be aligned at all levels.

5. Conclusion

Digital technologies have influenced the process of globalization by altering business and social practices and communication methods and have contributed to the creation of the digital economy. New business models based on networking are being developed while information and data have become of utmost importance for creating value.

The speed of digital transformation varies among countries, but it certainly represents both an opportunity and a risk for economies at all stages of development, having in mind that the digital economy requires certain infrastructure and a modified regulatory framework. Given that an increasing volume of trade is under the influence of digitalization and is being conducted using computer networks, it is important that governments and policymakers take into account these new trends and engage the In-

ternet as part of their policies. More focus should be put on consumers' rights and protection and on monitoring the increasing volume of data flows. Digital trade is becoming a frequently debated aspect of international trade relations. Digitalization should be seen as an opportunity to enhance efficiency, reduce trade costs and time needed for customs procedures. Nonetheless, with fast technological progress, more ambiguities will arise, such as implications of additive manufacturing, just-in-time delivery, classification of data within the WTO framework, data privacy and security, or taxation of the digital economy. Taking this into account, it is necessary to adapt or create new multilateral rules that should include new technologies and new types of digital goods and services, as well as enable better monitoring and measuring of overall digital trade flows. By creating a better environment for digital networks and services and developing a comprehensive monitoring and measurement system, it would be possible to include more data on digital trade in trade statistics. This is important for bringing informed policy decisions. The limitations of this paper lie in the fact that it presents neither concrete recommendations nor data analysis, but rather a global overview. For further research it would be interesting to compare regulatory frameworks of selected countries or regions in order to identify best practices and further contribute to the governance issue debate.

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DIGITALNA TRGOVINA KAO POTICAJ ZA STVARANJE NOVOG REGULATORNOG OKVIRA

SAŽETAK

Digitalne tehnologije utječu na sve vrste globalnih tijekova, uključujući trgovinske i migracijske tokove, smanjujući prostorne, vremenske i troškovne prepreke razmjene. Digitalna trgovina važan je dio novih globalnih trendova te oblikuje i mijenja proces globalizacije. Glavni cilj ovoga rada je identificirati ključne izazove u reguliranju i upravljanju digitalnom trgovinom na različitim razinama, uzimajući u obzir da na svakoj razini postoje specifični izazovi. Doprinos rada se ogleda se u dvama dijelovima. Prvo, daje se pregled ključnih izazova vezano uz regulaciju digitalne trgovine na nacionalnoj, regionalnoj i globalnoj razini. Drugo, istražuju se određene specifičnosti digitalne trgovine sa svrhom šireg razumijevanja potrebe za novim, ili barem modificiranim pravilima trgovanja koja bi podržavala digitalnu trgovinu i digitalnu ekonomiju.

Ključne riječi: digitalna trgovina, regulatorni okvir, WTO