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국제학석사학위논문

**Global Norm-Making of Digital Trade:
Comparative Analysis on the Trade Agreements**

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손 성 은

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Comparative Analysis on the Trade Agreements**

Thesis by

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Abstract

The digital technology is fundamentally changing the international trade landscape. Global trade has expanded from commodities trade to services trade, and now even further to digital trade. The digitalization of services industry is pushing forward to a more innovative business model, changing the whole platform of the international trade as the digitalization of all transactions is now possible. Despite the remarkable development of digital trade, the existing international rules and statistical methods cannot fully cover the unprecedented issues of digital trade. The legal vacuum exist as the multilateral norm-making of digital trade has not shown much of a progress ever since the introduction of the duty-free moratorium on electronic transmissions in 1998. For this reason, the international community is now turning their eyes to bilateral negotiations.

The developed economies such as the United States and the European Union are actively leading the bilateral global norm-making of digital trade through free trade agreements. Particularly, mega-FTAs led by the U.S. such as the TPP include the core elements of digital trade such as data free flow and data localization. As rules made under the TPP require higher level of liberalization for digital trade, it gives huge policy implications for South Korea which tend to have high trade dependency and low international compatibility. All in all, this paper analyzes the evolution of global rule-making on digital trade, examine the statistical analysis methods on quantifying digital trade, and propose policy implications for Korea.

Keywords: digital trade; e-commerce; digital economy; fourth industrial revolution; TPP; trade agreements

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Abbreviations

AI	Artificial Intelligence
APEC	Asia-Pacific Economic Cooperation
BEPS	Base Erosion and Profit Shifting
B2B	Business-to-business
B2C	Business-to-consumer
CBPR	Cross Border Privacy Rules
CD	Compact Disc
CETA	Comprehensive Economic and Trade Agreement
DVD	Digital Versatile Disc
EPA	Economic Partnership Agreement
EU	European Union
FTA	Free Trade Agreements
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
ICT	Information and Communications Technology
IoT	Internet of Things
KORUS FTA	Korea-U.S. FTA
MC11	Eleventh Ministerial Conference
MFN	Most-Favoured-Nation
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development
OTT	Over-the-Top
RCEP	Regional Comprehensive Economic Partnership
RTAs	Regional Trade Agreements
SMEs	Small and Medium-sized Enterprises
TBT	Technical Barriers to Trade
TiSA	Trade in Services Agreement
TPP	Trans-Pacific Partnership
TTIP	Transatlantic Trade and Investment Partnership
U.S.	United States
UNCTAD	United Nations Conference on Trade and Development
USITC	U.S. International Trade Commission
VR	Virtual Reality
WTO	World Trade Organization

1. Introduction

The digital technology is fundamentally transforming how people do business, manufacture goods, deliver services, and consume products. The Fourth Industrial Revolution is evolving with the speed of technical breakthroughs that has no historical precedent in fields such as robotics, artificial intelligence (AI), the Internet of Things (IoT), virtual reality (VR), Over-the-Top (OTT), and 3D printing. The newly developed information technology and digitalization are essentially changing the industrial structure, the market environment, and the international trade landscape. Digital economy allows the reduction of transaction costs, immediate access to the global market, and network effects. The Internet also leads to an enormous expansion of global value chains. Companies are now more mobile as they can outsource many activities, communicate easily from a distance, and deliver services from any location. In this sense, digital trade is regarded as a new growth engine which offers new opportunities for scale, particularly for small and medium-sized enterprises (SMEs) and businesses in developing economies. Acknowledging the irresistible trend of digital transformation, global awareness on digital trade has been continuously raised. Despite the remarkable development of digital trade, relevant rules and regulations of digital trade are not yet fully developed as digital trade inevitably brings up new issues to deal with. Digital infrastructures such as the Internet are global by its nature, but territorial barriers remain, which raises challenges for domestic and international trade policies. Also, the existing international rules and statistical methods cannot fully cover unprecedented issues of

digital trade. As the technological development are at a very early stage, whether individuals or countries are responding quickly and appropriately to the new changes will be an important factor in determining competitiveness in the upcoming years. Thus, global norm-making and rule-development are vital in this inchoate stage of the digital trade.

With the information and communications technology (ICT) revolution, services which once described as intangible and untradeable asset in economic textbooks now account for a considerable amount of the global trade. According to the World Trade Organization (WTO), world exports of commercial services totaled US\$ 4.8 trillion in 2016, up from US\$ 2.9 trillion in 2006.¹ The enhanced tradability of services created a need for a new multilateral regime other than the General Agreement on Tariffs and Trade (GATT) which deals with merchandise trade. As a result, the General Agreement on Trade in Services (GATS) which deals with services trade was created as the landmark achievement of the Uruguay Round. Nowadays, the rapid development of the digital technology is reshaping the existing industrial environment and the international trade. Global trade has expanded from commodities trade to services trade, and now even further to digital trade. The United Nations Conference on Trade and Development (UNCTAD) estimates that global e-commerce sales amounted to \$25.3 trillion in 2015, \$22.4 trillion for business-to-business (B2B) and \$2.9 trillion for business-to-consumer

¹ WTO (2017). World Trade Statistical Review, p. 11.

(B2C).² When digital trade was at a primitive level, the term “e-commerce” was more frequently used as it simply referred to the commodity trade transactions using the Internet. The Internet platform such as Amazon, eBay, and Alibaba enabled a faster and easier way to order, deliver, and pay for both online and offline businesses. The digitalization of services industry is further pushing forward to a more innovative business model these days. This progress is changing the whole platform of the international trade as the digitalization of all transactions is now possible. Digital trade is only at an infant stage, and with the state-of-the-art technologies such as 3D printing, the possibilities are endless.

Regardless of this remarkable development, the only content that the WTO members have agreed on regarding e-commerce is the moratorium on customs duties on electronic transmissions, which indicates that electronic transmissions should not be considered as imports subject to customs duties or border controls. In the past, the governments tried to impose tariff on physically traded products like cassette tapes, compact disc (CD), and Digital Versatile Disc (DVD), but now since almost everything can be transacted online, consumers can simply download music from the Internet. As WTO originated in national territorial concept, a massive scale of digital transactions is excluded from normal trade, dissolving the original concept of trade. In this regard, digital trade is sometimes underestimated as digital transactions are frequently not

² UNCTAD (2017). Information Economy Report 2017: Digitalization, Trade and Development. p. 27.

captured in statistics on trade by using the existing statistical methods. The inherent structural difficulty of statistically investigating digital trade is often leading to outdated government policies. Besides, numerous recent issues which did not even exist when WTO rules for e-commerce was negotiated, such as data free flow, cloud computing, and online consumer protection have been created.

To solve these shortcomings, attempts to multilaterally discuss digital trade are made but little progress has been made. As it is difficult to make agreements among diverse members with different interests under the multilateralism, countries are now turning to bilateralism and trying to utilize free trade agreements (FTAs) as a tool to liberalize digital trade. Through bilateral negotiations, each country can negotiate with each trading partner separately, which makes it much easier to negotiate than multilateral negotiations. In particular, the advanced economies such as the United States (U.S.) and the European union (EU) are taking the lead on global norm-making of digital trade through Free Trade Agreements (FTA). All in all, this paper will analyze how rule-making of digital trade evolved from multilateral norms to bilateral norms and suggest challenges for further codification and policy implications for South Korea.

2. The Current State of Digital Trade

2.1. The Fourth Industrial Revolution

The fourth industrial revolution and the rapid technological development are fundamentally changing the way we live, work, and relate to one another. The fourth industrial revolution is defined as the era of new technology coverage where the boundaries of the physical, digital, and biological space are diluted based on the digital revolution. It is fundamentally different from the other three revolutions for its scale, scope, and complexity, since it impacts all disciplines, economies, and industries.³ The ‘super connectivity’ and ‘super intelligence’ characteristics of the revolution are expected to completely transform the industrial structure and create new business models. For example, digital platforms such as eBay, Amazon, and Alibaba allow access to consumers domestically and globally, overcoming the domestic constraints. In this sense, the digital economy is hoped to give opportunities for developing countries and SMEs. For this reason, how to fully utilize and prepare for the fourth industrial revolution is under the global attention. At the World Economic Forum Annual Meeting in Davos, Switzerland in 2016, the fourth industrial revolution was emphasized as the main global issue which countries should cooperate and be prepared for the new changes in the digital economy.

In the recent years, the digitization of industries is spreading to unprecedented

³ Klaus Schwab (2016). The Fourth Industrial Revolution. World Economic Forum.

levels, and the existing global economic order is shifting to a new direction. The development of science and technology is driving changes in various fields. Especially, IT technology is at the forefront of the technological innovation as the core of the digital economy. The development in IT technology is changing the existing market trading structure and even the economic structure in fields such as big data, e-commerce, fintech, and 3D printing. Now they occupy an important position in product production and transactions. IT technology is combined with numerous technologies, which is leading to a revolution, and having a huge impact on the economy and society. The evolution of IT technology and the interdependence of various sectors cause radical changes in the economic structure. Various types of economic models are being proposed and evolving into various business forms. Countries around the world are taking various measures and policies to adapt to the digital economic environment. Domestically, it changes corporate structure, employment structure, financial structure, and changes the international economic order.

The Internet and the movement of data across borders are changing the nature, patterns and actors in international trade. The transformation is taking place in all aspects of production, management, and governance. Digital transformation is critical for the success of domestic economies, as a source of growth, enabler of trade, and key to competitiveness. Now, the global citizens can be connected by portable mobile devices, which allow access to knowledge with remarkable processing power and storage capacity. With the rapid pace of technological breakthroughs in fields such as AI, robotics, IoT, 3D printing, and quantum computing, the possibilities are unlimited. These

new technologies are having a huge impact on business, creating entirely new ways of serving value chains by creating new services, ranging from shopping to every aspect of daily lives. The innovation based on combinations of technologies is enabling the global economy to step further than simple digitization. For its rapid pace of changes and broad impacts of the fourth industrial revolution, both opportunities and challenges exist. In this sense, the companies should reexamine the way they do business and the governments should work to fill in the legal vacuum of newly created issues of the digital economy.

The World Economic Forum pointed out that personal data will be the new ‘oil’ – a valuable resource of the 21st century.⁴ The world is witnessing a surge in cross-border data. According to the McKinsey Global Institute, the global flow of digital information more than doubled between 2013 and 2015 alone, to an estimated 290 terabytes per second⁵. As the cost of data storage has fallen so rapidly, there is no longer necessary to delete data to make room for new data after using it. As a result, unlike other resources, data is not exhausted. In this regard, today’s leading global companies’ core competitiveness lies in the platform-based business model using big data. For example, Uber, the world’s largest taxi company, owns no vehicles. Facebook, the world’s most popular media owner, creates no content. Alibaba, the world’s largest retailer, has no

⁴ World Economic Forum (2011). Personal Data: The Emergence of a New Asset Class. pg. 5.

⁵ McKinsey Global Institute (2016). Digital Globalization: The New Era of Global Flows.

inventory. Airbnb, the world's largest accommodation provider, owns no real estate.⁶ To illustrate, Alibaba mediates information about the person who wants to buy the goods and the person who wants to sell it. Similarly, Uber acquires and matches the information of the person who needs driving and the person who can drive. There is little or no additional cost to produce, store, ship, and replicate this information. Instead, as more people's information flows into the platform, the value of the platform exponentially increases due to the economies of scale of the demand side, leading to network effects.

The world is now moving from globalization to digitalization. Digital technology has become a driving force of development, influencing the production process of all industries and creating new economies of scale by leveraging the network effects. Especially, electronic commerce can serve as a tool for development by boosting cross-border trade. The digital trade continues to grow in the global economy, changing the global paradigm.

⁶ Tom Goodwin (2015). The Battle is for the Customer Interface. Tech Crunch Network. <https://techcrunch.com/2015/03/03/in-the-age-of-disintermediation-the-battle-is-all-for-the-customer-interface/>

2.2. The Rise of Digital Trade

The technological development is fundamentally changing the international trade landscape, leading to the expansion of digital trade. Digital trade is regarded as an opportunity for developing countries, in that it widens market access beyond national borders, lower the market entering by reducing initial investments and trade costs, thus facilitating international trade. According to UNCTAD, the value of global e-commerce increased to an estimated \$25 trillion in 2015, up from \$16 trillion in 2013.⁷ Particularly, the U.S. is showing the most outstanding growth of digital trade. The USITC estimated that digital trade increased the U.S. GDP by between \$517 billion and \$711 billion, increased average wages by 4.5 to 5.0 percent, created around 2.4 million jobs.⁸ Figure 1 shows that ICT services exports ratio of services exports are continuously increasing, and has reached almost 31.4% in 2016. Figure 2 shows that the U.S. is the leading country in ICT services exports, followed by the United Kingdom and Germany.

Despite its remarkable development, there is no single recognized and accepted definition of digital trade due to its complexity and rapidly changing environment. The Organisation for Economic Co-operation and Development (OECD) defines digital trade as a trade which encompasses digitally-enabled transactions in trade in goods and services which can be either digitally or physically delivered and which involve

⁷ UNCTAD (2017). Information Economy Report 2017: Digitalization, Trade and Development. p. 15.

⁸ USITC (2014). Digital Trade in the U.S. and Global Economies, Part 2. p. 66.

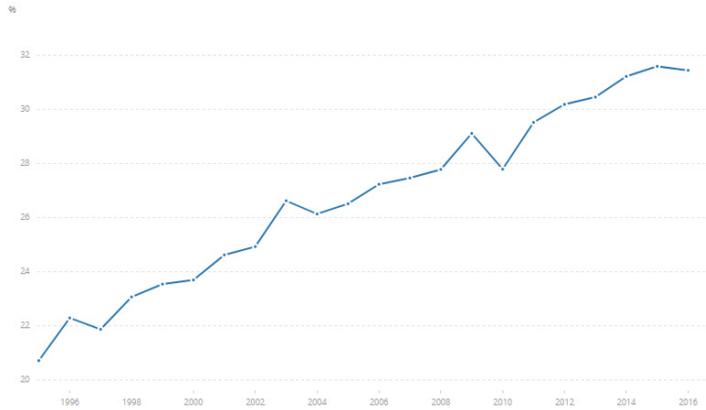
consumers, firms and governments.⁹ The WTO prefers to use the term, ‘electronic commerce’ more than the term, digital trade. According to the WTO E-commerce Work Program, e-commerce means the production, distribution, marketing, sale or delivery of goods and services by electronic means.¹⁰ The U.S. International Trade Commission (USITC) defines digital trade as international trade in which the internet and internet-based technologies play a particularly significant role in ordering, producing, or delivering products and services.¹¹ As seen above, frameworks, coverages, and approaches regarding digital trade is continually proposed, but it is difficult to identify the exact scope of digital trade as services bundled with digital technology are constantly expanding the scope of tradable services. For example, medical services can now be traded globally as digital data of a patient’s information can be transferred to a doctor in the other side of the world. In this regard, measuring the exact amount of trade in digitally-enabled services is difficult.

⁹ OECD (2017). Digital Trade: Developing a Framework for Analysis. p. 7.

¹⁰ WT/L/274, adopted on 30 September 1998

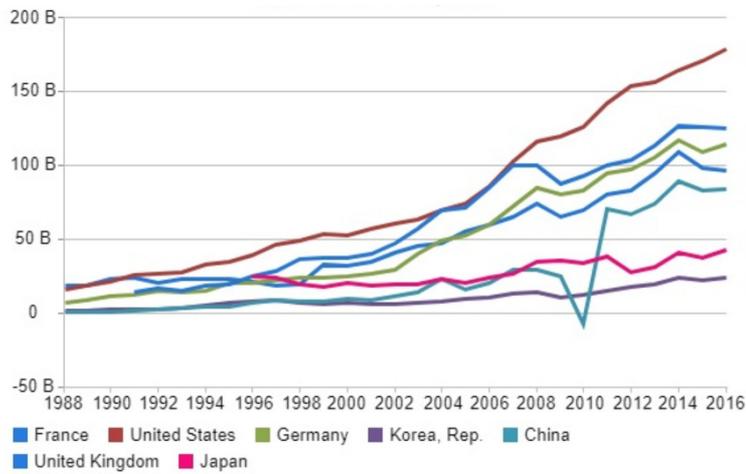
¹¹ USITC (2014). Digital Trade in the U.S. and Global Economies, Part 2. p. 29.

Figure 1. World ICT Services Exports, 1988-2016 (BoP, % of service exports)



Source: World Bank data

Figure 2. ICT Services Exports in Selected Countries, 1988-2016 (BoP, current US\$)



Source: World Bank data

3. Services Integrated with Digital Technology

The digital technology is bringing up paradigm shift of the international trade, especially in ICT-related or digitally-enabled services area. Trade in digital services such as professional services including law, engineering, and architecture, finance, IT, education, and health are increasing. Cross-border transactions of digital data even in the industries which previously barely affected by globalization are being transformed and showing unprecedented increase in trade. In that digital trade is only at an infant stage, with further development of technology such as 3D printing, the possibilities are endless. A completely new form of international trade is created as IT technology is increasingly integrated with services. The three most prominent sectors of development are financial services such as mobile payment system, cultural services such as Audio-visual services, and public transportation services such as Uber. Many of the services sectors used to be restrictive areas for public policy reasons, but now the digital technology is enabling a totally new form of business and trade.

First, mobile transaction for financial services are significantly increasing. One of the noteworthy changes is the mobile payment system such as Alipay and Apple Pay, which is replacing the credit card industry that once dominated the financial services market based on its huge facility investment and technology. Especially, China is becoming a cashless society. Mobile payments in China hit \$5.5 trillion in 2016, which is roughly 50 times the size of America's \$112 billion market, according to iResearch

Consulting Group in China.¹² The rapidly expanding use of Alipay on account of the surge in Chinese tourists is a good example of how the digitalization of the services industry is spread worldwide. Fintech is not only changing the financial industry but also the nature of money. With the development of the Blockchain technology, a worldwide cryptocurrency and digital payment system ‘bitcoin’ was created. This first decentralized digital currency showed the possibility of even the boundaries of national currency to be blurred in the future.

Second, cultural contents are now digitally traded in the cultural industry sector. In the 1980s and 1990s, opening up the cultural market was not that active as it was considered to be a sovereignty domain. However, IT technology has changed the transaction method of cultural services. Audio-visual services like movie, drama, and music has experienced the most extreme change where crossing the borders has completely disappeared. Downloading movies and streaming music can be done through the Internet without any physical trade. Vehicles to transfer services like CD or film are no longer necessary.

Third, a considerable number of domestic markets for public transportation is now open for the global market. Public transport was the area where regulation was the strongest due to its publicity, but ‘Uber’ has changed the fundamental industry requirements of the taxi industry. Uber simplifies the inconvenience of various payment

¹² iResearch (2016). China’s Internet Consumption Finance Market Research Report.

systems for customers such as currency exchange and transportation cards through the mobile payment system of smartphones. Also, drivers are no longer required to understand the road and traffic conditions, as the navigation function of Google Maps can be used.

Even the services which were once considered to be impossible to physically trade under the conventional trading methods in the analog era are actively being traded now. The new services are digitized and transmitted across borders as goods and services are merged into one service. For example, instantaneous trade of virtual goods such as e-books, MP3 music files and streaming services, and cloud computing services can be transmitted to anywhere where the Internet is connected. With the development of 3D printing, the product categories that can be transmitted digitally will be expanded even more. The digital cross-border transactions are transforming industries which were barely influenced by globalization in the past. Nonetheless, the newly created digital services on account of digital convergence technologies are difficult to classify and measure.

4. Structural Difficulty of Digital Trade

Even though the world is witnessing the significant growth in the volume and the value of digital trade, it is often underestimated due to the structural difficulty of measuring digital trade. Some argue that mismeasurement of digitalized transactions is occurring in that they are often not sufficiently visible in the existing statistics. Numerous challenges of measuring digital trade exist such as difficulty of figuring out exact scope and calculating value-added of digital trade. As it is difficult to analyze digital trade with the existing statistical data, digital transactions are often not captured in statistics on trade. Statistical underestimation is a serious issue as it can lead to underestimation of public policy and corporate strategy. In this regard, the structural difficulty of statistically investigating digital trade can lead to outdated government policies. One of the important roles of the government policy is to create the market environment. However, government policy making regarding digital trade is becoming systemically outdated.

One of the reasons why digital transactions are hard to capture in statistics is that the digital economy is using more intangible assets to produce intangible goods with the technological development. For instance, services were once a typical example for intangible goods, but now most of services including education and medical services are globally traded. The core components of the digital economy, such as software, platforms, and data, are all intangible. They cross borders between countries and industries without being bound by time and space based on the virtual space of the Internet.

Also, the fact that universally agreed on definition or classification of digital trade does not exist makes measuring digital trade even more difficult. Digital goods such as data is gaining importance as a new product to be traded in the digital economy. Nevertheless, the contribution of intangible assets is often found missing in official statistics like gross domestic product (GDP). According to Michael Mandel, the U.S. economic growth rate in the first half of 2012 is expected to increase from 1.7% to 2.3% when the contribution of the digital goods to the U.S. economy are to be added into the GDP statistics.¹³ An underestimation of GDP or an overestimation of the price index could lead to misleading macro policies such as monetary policy and fiscal policy. Firms also cannot be free from the risk of underestimation when examining the feasibility of investing in the digital economy. Also, international taxation is another important issue to be solved in the digital economy. Traditional tax policy cannot fully capture the flow of digitally transmitted services exchanged through the Internet. At the 2015 G20 Summit, base erosion and profit shifting (BEPS) Action Plan 1¹⁴, the so-called ‘Google Tax’ was discussed as the main goal of avoiding mismatches in trade rules.

Statistical underestimation of digital trade can result in underestimation of public policies and corporate strategies. Thus, new attempts are made to solve the problem of underestimation of the digital economy. For instance, international and governmental-

¹³ Michael Mandel (2012). *Beyond Goods and Services: The (Unmeasured) Rise of the Data-Driven Economy*. P. 2.

¹⁴ OECD/G20 BEPS Project (2015). *Addressing the Tax Challenges of the Digital Economy. Action 1: 2015 Final Report*.

level investigation for digital trade such as the WTO statistics and the USITC dataset are made. The WTO services data is increasingly addressing e-commerce and trade sector for digitally-enabled services. The U.S. government started a massive governmental scale investigation for digital trade under the USITC dataset as well. Yet, economic evidence in official statistics is somewhat limited. In particular, a considerable number of developing countries are having a hard time of keeping track of the digitally traded services. To address data gaps, UNCTAD, UPU, WTO and OECD are collaborating on measuring cross-border ecommerce.

5. Emerging International Rules of Digital Trade

Technological development is leading to a remarkable development of digital trade that the world has never seen before. The rules, definition, and understanding of digital trade is still under the progress. The rapidly developing technological innovation and changes in the digital economy are difficult to fill with the current norms and framework. The remains in the past paradigm in trade, business, laws, taxes, and statistics are failing to adequately capture the current digital economy. Accordingly, the international organizations, governments, and industry are actively discussing ways to cooperate and cope with the challenges of digital trade. Emerging international rules and norms of digital trade are introduced both multilaterally and bilaterally to fill in the legal vacuum.

5.1. Multilateral Norm-making of Digital Trade

Digital economy and e-commerce has long been on the agenda of numerous international organizations and bodies. First of all, the OECD is collaborating with the governments and other international organizations to develop measurement measures for e-commerce. Until now, three OECD Ministerial meetings on the digital economy were made. First, the 1998 OECD Ministerial Conference on Electronic Commerce in Ottawa resulted in a global action plan for the development of e-commerce focused on policy areas of privacy and consumer protection. Second, the 2008 Ministerial Meeting on the Future of the Internet Economy in Seoul recognized the Internet as a platform for further

growth. Third, the 2016 Ministerial Meeting on the Digital Economy: Innovation, Growth and Social Prosperity in Cancún marked as another crucial moment to discuss the key policy areas of the digital economy such as innovation, Internet openness, digital trust, and global connectivity. The OECD is continuing on pushing digital agenda forward through the ‘Going Digital project’ which aims to help policymakers on making global economy prosperous in this digital and data-driven world.

Moreover, the UNCTAD is actively participating in publishing a considerable number of studies and reports regarding e-commerce and the digital economy. Their research is guiding developing countries to better understand and fully utilize the benefits of the digital economy. Also, the UNCTAD E-Commerce Week has been launched since 2015 to provide a platform for a global dialogue on making the development of e-commerce inclusive. Diverse stakeholders including government representatives, business leaders, academia, and civil society has participated in the discussion, focusing on ensuring engagement and maximizing benefits for developing countries on e-commerce. The third edition was launched in 2017 with the theme of ‘Towards Inclusive E-Commerce,’ and the fourth edition will soon take place in 2018 with the theme of ‘Development dimensions of digital platforms.’ Important topics such as data flows and protection, cybersecurity and consumer protection, and the rise of fintech and inclusive development were discussed. Particularly, the UNCTAD-led initiative entitled ‘eTrade for All,’ which is a multi-stakeholder initiative aiming to unlock the potential of e-commerce in developing countries, was introduced at the E-Commerce Week 2017. The initiative is a demand-driven mechanism providing public-

private dialogue, in which leading development partners cooperate with the private sector to pool capabilities and resources. It aims to improve the capability of developing countries, and especially least developed countries, to benefit from the digital economy.

Other international organizations are also making efforts to cope with the newly created issues of the digital economy. The Asia-Pacific Economic Cooperation (APEC) is promoting policy framework of the cross-border data flows in the Asia Pacific region. In 2004, the APEC Privacy Framework was endorsed by the minister for the twenty-one APEC economies. Then in 2011, the APEC Cross Border Privacy Rules (CBPR) System was endorsed, which is a voluntary system that requires participating businesses to implement data privacy policies consistent with the APEC Privacy Framework. It is playing a critical role in ensuring the free flow of personal information across borders, while protecting privacy and securing personal information at the same time.

The G20 is also trying to shape digitalization at global level by collectively leveraging opportunities and coping with challenges. The G20 leaders have recognized the importance of the Internet economy during the G20 meeting in Antalya in 2015, and the G20 Digital Economy Development and Cooperation Initiative was launched in 2016. The G20 Digital Economy Ministerial Conference continued in 2017 as the G20 Ministers gathered to discuss maximizing the benefits of the digital economy. The conference entitled ‘Key Issues for Digital Transformation in the G20’ was held in Berlin, and a conference entitled ‘Digitalization: Policies for a Digital Future’ was held in Düsseldorf.

Amongst all, the WTO is considered as a leading organization for the multilateral norm-making of digital trade for its variety of members and effective dispute settlement system of the Dispute Settlement Body. Unlike how new multilateral trade agreements such as the GATS and TRIPS was introduced to discuss newly developed issues of services and international property rights under the Uruguay Round, the WTO attempts to settle digital trade issues with the existing multilateral trade agreements of GATT, GATS and TRIPS. The WTO E-Commerce Work Program is also playing a critical role on setting a framework in dealing with e-commerce.

5.1.1. WTO E-Commerce Work Program

The history of multilateral trade negotiations on e-commerce was triggered by the Clinton administration's proposal on five principles for e-commerce based on the 'Framework for Global Electronic Commerce'¹⁵ established on July 1997. The WTO adopted the 'Ministerial Declaration on Global Electronic Commerce'¹⁶ at the Second Ministerial Conference on May 1998. The members agreed on a temporary duty-free moratorium that members will continue their current practice of not imposing customs

¹⁵ Five principles: The private sector should lead; Governments should avoid undue restrictions on electronic commerce; Where governmental involvement is needed, its aim should be to support and enforce a predictable, minimalist, consistent and simple legal environment for commerce; Governments should recognize the unique qualities of the Internet; Electronic commerce on the Internet should be facilitated on a global basis.

<https://clintonwhitehouse4.archives.gov/WH/New/Commerce/summary.html>

¹⁶ WT/MIN(98)/DEC/2, adopted on 20 May 1998.

duties on electronic transmissions. The ‘WTO Work Programme on Electronic Commerce¹⁷’ was then adopted by the General Council at the Geneva Ministerial Session on September 1998. The Work Program first defined the concept of ‘e-commerce’ to mean the production, distribution, marketing, sale or delivery of goods and services by electronic means. It also instructed the four respective bodies to examine and report different e-commerce issues they were dedicated to handle as elaborated in Table 1. The four bodies are the Council for Trade in Goods, the Council for Trade in Services, the Council for TRIPS, and the Committee on Trade and Development. Further attempts to multilaterally discuss digital trade are made. Ministerial Conferences to discuss e-commerce issues have been made in Geneva 1998; Doha 2001; Hong Kong 2005; Geneva in 2009; Geneva 2011; Bali 2013; and Nairobi 2015. Recently, the Eleventh Ministerial Conference (MC11) took place on December 2017 in Buenos Aires, Argentina. Countries agreed to endeavor to move ahead towards negotiations to clarify and improve rules for digital trade, and even suggested to update basic research on e-commerce.

The WTO E-Commerce Work Program did make a significant achievement in a process of global discussion, analysis, and classification of e-commerce. Nevertheless, it failed to produce any binding rules or regulations due to the sharp confrontation between the member states. The only limited performance made under the WTO is the temporary duty-free moratorium on electronic transmissions which has three limitations.

¹⁷ WT/L/274, adopted on 25 September 1998.

First, the declaration is a mere political promise and only a unanimous consensus of the member states to extend duty-free status temporarily. It is not even recognized as a principle of the WTO, thus cannot be used as a governing law in the WTO dispute settlement process as it is not legally binding. Second, the definition and scope of the 'electronic transmission' are ambiguous, giving uncertainty as various interpretations are possible. Third, the duty-free moratorium is not permanent but temporary.

No substantive progress has been made ever since the moratorium, and with the Doha Development Agenda deadlock, the WTO legal framework is stuck at a standstill. The legal gaps exist at the multilateral level as the current form of WTO law seems not meet the realities of today's digital economy. As it is difficult to establish new rules under the traditional multilateral trading systems, countries are pursuing digital trade liberalization through regional trade agreements.

Table 1. General Council and Committee dedicated discussion on e-commerce

Body	Council for Trade in Goods	Council for Trade in Services	Council for Trade Related Intellectual Property	Committee for Trade and Development
Issues	<p>market access for and access to products related to e-commerce; customs valuation issues; import licensing issues; Standards related issues; rules of origin issues; classification issues; custom duties and other duties and charges, etc.</p>	<p>scope (modes of supply); most favoured nation treatment; national treatment; transparency; increasing participation of developing countries; domestic regulations; competition issues; classification issues; customs duties; market access commitments; protection of privacy and public morals and the prevention of fraud, etc.</p>	<p>protection and enforcement of copyright and related rights; protection and enforcement of trademarks; new technologies and access to technology.</p>	<p>effects of e-commerce on trade and economic prospects of developing countries and small-and-medium-sized firms; enhancing the participation of developing countries; use of IT to integrate developing countries into the multilateral trading system; financial implications of e-commerce for developing countries, etc.</p>

5.2. Bilateral Norm-Making of Digital Trade

Disappointed in the lagging multilateral negotiations, WTO members are attempting to establish new trade norms on digital trade through bilateral and regional trade agreements. Global norm-making of digital trade is under a unique situation where bilateral norms, rather than multilateral norms, are taking the lead. The emergence of mega-FTAs with provisions on e-commerce and digital economy such as the Trans-Pacific Partnership (TPP) is noticeable. Particularly, the U.S. and EU are actively participating in bilateral negotiations for the Regional Trade Agreements (RTAs) with e-commerce as the main agenda.

5.2.1. The U.S.-led FTAs

The U.S. is one of the most proactive countries in the world to address e-commerce and digital economy by leading discussions in the international organizations and trade negotiations. They have taken the lead in the liberalization of digital trade by focusing on the enactment of e-commerce trade rules through FTAs. Since the late 1990s, the U.S. has already paid attention to the importance of e-commerce by focusing on liberalizing services trade by electronic commerce through the digital trade agenda. Unlike the EU which normally includes e-commerce into the services chapter, the U.S. has put e-commerce on an independent chapter ever since the FTA with Jordan in 2000. The inclusion of legally binding independent e-commerce chapter of digital trade norms

is an important debate topic for them. The most advanced e-commerce chapter among the enacted U.S.-led FTAs is the Korea-U.S. (KORUS) KTA. A significant development is seen in the KORUS FTA, and the U.S. jumped even further through the TPP. Even though the TPP was withdrawn by the Trump administration, it is still a very important data to research on to see the U.S.'s norm-making for digital trade. Table 2 indicates provisions included in each U.S. FTA agreements, and the highlighted parts show the newly introduced rules under the TPP.

5.2.2. The European Union-led FTAs

With the goal of the EU's single market to fit for the digital age, the EU adopted Digital Single Market (DSM) strategy in May 2015, in order to bring down barriers to unlock online opportunities. Yet, harmonizing different regulatory policies and bringing 28 national markets to a single digital market is not an easy job to do. For this reason, the EU maintained a relatively conservative attitude on liberalizing digital trade compared to the U.S. For example, unlike the U.S. which has put e-commerce in an individual chapter in all of its recent FTAs, the EU normally includes e-commerce inside the Services chapter. The only exception is the EU-Canada Comprehensive Economic and Trade Agreement (CETA), where e-commerce was put on a separate chapter. The CETA is currently the most advanced e-commerce chapter among the enacted EU-led

FTAs. Even though the EU-Japan Economic Partnership Agreement (EPA)¹⁸ is not yet concluded and still under a negotiation, the provisional draft was studied as it shows noteworthy developments. It seems like the EU is trying to take a leap and follow up the U.S.'s lead through the EU-Japan EPA. Table 3 indicates provisions included in each EU FTA agreements, and the highlighted parts show the newly introduced rules under the EU-Japan EPA.

¹⁸ Japan-EU EPA/FTA Consolidated Text (Status 5 July 2017)

Table 2. The U.S. FTAs - Electronic Commerce Chapter

Country	Chile	Australia	Morocco	Bahrain	CAFTA-DR	Oman	Peru	Colombia	Korea	Panama	TPP
Entry into Force	2004	2005	2006	2006	2006, 2007, 2009¹⁹	2009	2009	2012	2012	2012	X
Electronic Supply of Services	15.2	16.2	14.2	13.2	14.2	14.2	15.2	15.2	15.2	14.2	
Definitions	15.6	16.8	14.4	13.5	14.6	14.5	15.8	15.8	15.9	14.6	14.1
Scope and General Provisions	15.1	16.1	14.1	13.1	14.1	14.1	15.1	15.1	15.1	14.1	14.2
Customs Duties	15.3	16.3		13.3							14.3
Non-discriminatory Treatment of Digital Products	15.4	16.4	14.3	13.4	14.3	14.3	15.3	15.3	15.3	14.3	14.4
Domestic Electronic Transactions Framework											14.5
Electronic Authentication and Electronic Signatures		16.5					15.6	15.6	15.4		14.6
(Online) Consumer Protection		16.6				14.4	15.5	15.5	15.5		14.7

¹⁹ CAFTA-DR entered into force for the United States, El Salvador, Guatemala, Honduras, and Nicaragua in 2006, for the Dominican Republic in 2007, and for Costa Rica in 2009.

Table 3. The EU FTAs: Services and Electronic Commerce Chapter

Country	South Korea	CETA	Singapore	Vietnam	Japan
Current state	Entry into force on 2015	Entry into force on 2017	Negotiation concluded on 2014	Negotiation concluded on 2015	Negotiation started on 2013
Chapter	Services and Electronic Commerce	Electronic Commerce	Services and Electronic Commerce	Services, Investment, and E-Commerce	Services, Investment, and E-Commerce
Definitions		Art 16.1			Art 6.2
Objective and scope	Art 7.48	Art 16.2	Art 8.57	O	Art 6.1
Customs duties on electronic deliveries		Art 16.3	Art 8.58	O	Art 6.3
Trust and confidence in electronic commerce		Art 16.4			
General provisions		Art 16.5			
Dialogue on electronic commerce		Art 16.6			
Relation to other chapters		Art 16.7			
Cooperation on regulatory issues	Art 7.49		Art 8.61	O	Art 6.11
Electronic supply of services			Art 8.59		

Electronic signatures						Art 6.8
Source code					Art 8.60	Art 6.4
Domestic regulation						Art 6.5
Principle of no prior authorisation						Art 6.6
Conclusion of contracts by electronic means						Art 6.7
Consumer Protection						Art 6.9
Unsolicited Commercial Electronic Messages						Art 6.10
Free Flow of Data						Art 12

Table 4. Provisions both in the U.S.-led FTAs and the EU-led FTAs

	U.S.-led FTAs		EU-led FTAs		
	KORUS FTA	TPP	EU-Korea FTA	CETA	EU-Japan EPA
Definitions	Article 15.9	Article 14.1		Article 16.1	Article 6.2
Scope, Objectives, General Provisions	Article 15.1	Article 14.2	Article 7.48	Articles 16.2 and 16.5	Article 6.1
Customs Duties		Article 14.3		Article 16.3	Article 6.3
Domestic Regulation		Article 14.5			Article 6.5
Electronic Authentication and Electronic Signatures	Article 15.4	Article 14.6			Article 6.8
Consumer Protection	Article 15.5 (Online)	Article 14.7 (Online)			Article 6.9
Unsolicited Commercial Electronic Messages		Article 14.14			Article 6.10
Cooperation		Article 14.15	Article 7.49		Article 6.11
Source Code		Article 14.17			Article 6.4
Personal Information Protection		Article 14.8		Article 16.4 (Trust & confidence)	

Table 5. Provisions only in the U.S.-led FTAs or the EU-led FTAs

U.S.-led FTAs	KORUS FTA	TPP
Digital Products	Article 15.3	Article 14.4
Personal Information Protection		Article 14.8
Paperless Trading	Article 15.6	Article 14.9
Principles on Access to and Use of the Internet for Electronic Commerce	Article 15.7	Article 14.10
Cross-Border Transfer of Information	Article 15.8	Article 14.11
Internet Interconnection Charge Sharing		Article 14.12
Location of Computing Facilities		Article 14.13
Cooperation on Cybersecurity Matters		Article 14.16
Dispute Settlement		Article 14.18
EU-led FTAs	CETA	EU-Japan EPA
Trust and confidence in electronic commerce	Article 16.4	
Dialogue on electronic commerce	Article 16.6	
Principle of no prior authorisation		Article 6.6
Conclusion of contracts by electronic means		Article 6.7
Free Flow of Data		Article 6.12

5.2.3. The Article Comparison of the E-Commerce Provisions

The U.S. and the EU share some similar provisions regarding e-commerce, but differences also remain. The EU tend to focus on the applicability of the WTO Agreement, while the U.S. focuses on promoting consumer confidence and market liberalization of e-commerce. It seems like that the EU is trying to follow the extent of digital liberalization of the U.S. through the EU-Japan EPA. Yet, the EU seem to be more included to multilateral discussions and cooperation as they tend to emphasize the importance of dialogue, international standards, and multilateral for a. Table 4 indicates provisions included both in the U.S.-led FTAs and the EU-led FTAs, and Table 5 indicates provisions included only in the either FTAs.

i. Definition of Digital Products

Both the KORUS FTA and the TPP define what ‘digital products’ are, specifically about the product itself and its delivery methods. This is a development from the WTO work program where a clear definition of digital products is missing. In the WTO context, it simply refers to products that can be traded in physical form and can be downloaded. As online transmissions have surged with the development of the Internet,

new definition was needed. However, the TPP states that the digital product does not include a digitized representation of a financial instrument, including money.²⁰

Moreover, both agreements take a proactive stance by stating that “the definitions of digital products should not be understood to reflect a Party’s view on whether trade in digital products through electronic transmission should be categorized as trade in services or trade in goods” in their footnotes²¹. One of the reasons why the WTO work program did not work well is that member states could not agree on whether to classify digital products as goods or services. Digital products are traditionally IT services incorporated into physical transmission devices such as music service available by CDs. If digital products are to be classified as goods, the GATT and other agreements related to commodity trade such as the technical barriers to trade (TBT), anti-dumping, and subsidy agreements should be applied. On the other hand, if they are to be classified as services, the degree of liberalization will be limited by the GATS schedule. For this reason, the two agreements try to avoid starting an exhausting controversy from the first place, giving a room for more flexible negotiations.

Furthermore, the KORUS FTA and the TPP show different approach on the technology neutrality. The TPP defines digital product as only “that can be transmitted

²⁰ TPP Article 14.1. Footnote 2. “For greater certainty, digital product does not include a digitised representation of a financial instrument, including money.”

²¹ TPP Article 14.1. footnote 3. & KORUS FTA Article 15.9. footnote 9.

electronically,”²² while the KORUS FTA define it as “regardless of whether they are fixed on a carrier medium or transmitted electronically.”²³ This shows that unlike the KORUS FTA which does not put distinction on delivery methods and implicitly acknowledges the technology neutrality of the digital products, the TPP does not. Furthermore, digital product

For the EU’s case, none of the EU-led FTAs define what digital products are. Rather, the EU shows a relatively defensive approach of defining electronic commerce as “commerce conducted through telecommunications, alone or in conjunction with other information and communication technologies” under the CETA²⁴. Yet, Objective and General Provisions of the EU-Japan EPA²⁵ shows that the EU may include the provision that “the Parties recognise the principle of technological neutrality in electronic commerce.” They may also exclude gambling services, broadcasting services, audio-visual services, services of notaries or equivalent professions and legal representation services.

²² TPP Article 14.1. Definitions. “digital product means a computer programme, text, video, image, sound recording or other product that is digitally encoded, produced for commercial sale or distribution, and that can be transmitted electronically.”

²³ KORUS FTA Article 15.9. Definitions. “digital products means computer programs, text, video, images, sound recordings, and other products that are digitally encoded and produced for commercial sale or distribution, regardless of whether they are fixed on a carrier medium or transmitted electronically.”

²⁴ CETA Article 16.1. Definitions.

²⁵ EU-Japan EPA Consolidated Text (Status 5 July 2017) Article 6.1.3. Objective and General Provisions.

ii. Permanent Duty-Free Declaration on Electronic Transmissions

Both agreements declared duty-free on electronic transmissions, progressing further than the temporary duty-free moratorium of the WTO work program. The TPP states that “No Party shall impose customs duties on electronic transmissions,”²⁶ and the KORUS FTA states that “Neither Party may impose customs duties, fees, or other charges”²⁷ on digital products. Unlike how the WTO duty-free moratorium is a provision which is was temporarily applied until the next meeting, the provisions in the two agreements are permanent. Likewise, the CETA states that “A Party shall not impose a customs duty, fee, or charge on a delivery transmitted by electronic means.”²⁸ Both the U.S. and the EU has established a clear and applicable duty-free moratorium.

iii. Non- Discriminatory Treatment of Digital products

The fundamental principle of the WTO trading system is the trade without discriminations under the obligations of the most-favoured-nation (MFN) treatment and

²⁶ TPP Article 14.3.1. Customs Duties. “No Party shall impose customs duties on electronic transmissions, including content transmitted electronically, between a person of one Party and a person of another Party.”

²⁷ KORUS FTA Article 15.3.1. Digital Products. “Neither Party may impose customs duties, fees, or other charges on or in connection with the importation or exportation of:
(a) if it is an originating good, a digital product fixed on a carrier medium; or
(b) a digital product transmitted electronically.”

²⁸ CETA Article 16.3.1. Customs duties on electronic deliveries.

the national treatment. First, for the national treatment which is treating foreigners and locals equally, both the KORUS FTA²⁹ and TPP³⁰ do not allow a Party from according less favourable treatment to digital products from the territory of another Party. They both restrict the obligation only to the digital products and persons of the contracting Party. Also, it shall be granted only to the substantive owner of the digital product. The benefits of the national treatment are excluded in case of merely saving, transmitting or distributing digital products within the Parties. Second, the two agreements are taking different approach for the MFN treatment which is treating others equally. For the KORUS FTA, even a digital product that is “first made available on commercial terms in the territory of the other Party³¹” or a mere “distributor” can benefit from the MFN

²⁹ KORUS FTA Article 15.3.2. Digital Products.

Neither Party may accord less favorable treatment to some digital products than it accords to other like digital products

(a) on the basis that:

- (i) the digital products receiving less favorable treatment are created, produced, published, stored, transmitted, contracted for, commissioned, or first made available on commercial terms in the territory of the other Party, or
 - (ii) the author, performer, producer, developer, distributor, or owner of such digital products is a person of the other Party; or
- (b) so as otherwise to afford protection to other like digital products that are created, produced, published, stored, transmitted, contracted for, commissioned, or first made available on commercial terms in its territory.

³⁰ TPP Article 14.4.1. Non-Discriminatory Treatment of Digital Products.

No Party shall accord less favourable treatment to digital products created, produced, published, contracted for, commissioned or first made available on commercial terms in the territory of another Party, or to digital products of which the author, performer, producer, developer or owner is a person of another Party, than it accords to other like digital products.”

³¹ KORUS FTA Article 15.3.3. Digital Products.

Neither Party may accord less favorable treatment to digital products:

obligation. This provision applies to a broader scope, promoting trade liberalization of digital products. On the other hand, the TPP grants the MFN treatment only to the digital products that are substantially owned by natural persons or legal entities of a Party. This provision preferentially promotes intra-regional trade.

iv. Classification of Electronically Transmitted Services

One of the biggest difficulties of the WTO GATS system is that it could not fully cover the newly created services enabled by the digital technology. The GATS governs through a ‘positive approach,’ where member states can selectively open up their services market. Since countries are bound by only the areas they have agreed on, how to classify new services in the services schedules has become a problem. On the other hand, the KORUS FTA and the TPP have adopted a ‘negative approach,’ where member states open up all their services market except the ones they state not to. Unless a separate reservation is provided in the Annex, all service sectors shall be open, and this also applies to electronic services trade. With the remarkable technological breakthrough, unprecedented ICT services are constantly emerging. For this reason, it is virtually

-
- (a) created, produced, published, contracted for, commissioned, or first made available on commercial terms in the territory of the other Party than it accords to like digital products created, produced, published, contracted for, commissioned, or first made available on commercial terms in the territory of a non-Party; or
 - (b) whose author, performer, producer, developer, distributor, or owner is a person of the other Party than it accords to like digital products whose author, performer, producer, developer, distributor, or owner is a person of a non-Party.”

impossible to list all electronic services in the reservation list of the Annex. In this regard, the negative approach can dramatically expand market liberalization of electronically transmitted services. Thus, the U.S.-led FTAs lead to a higher level of liberalization of the digital trade than the GATS.

v. Cross-Border Transfer of Information by Electronic Means

One of the most noticeable development in the TPP is the cross-border transfer of information by electronic means, which is related with the free flow of data. In the digital era, information about consumers, commodities, and market conditions is used as an essential element of production, sales, and research and development. This “big data” holds enormous commercial value, thus the free flow of information is a prerequisite for the further growth of the digitally-enabled services. Particularly, the leading IT companies in the U.S., such as Google and Facebook, which collect, store, and process personal information of customers scattered around the world, have continuously asked for free flow of data across the borders.

The KORUS FTA did recognize the importance of the free flow of information,³² but only to the extent of “*endeavor*.” On the other hand, the TPP has

³² KORUS FTA Article 15.8. Cross-border Information Flows.

Recognizing the importance of the free flow of information in facilitating trade, and acknowledging the importance of protecting personal information, the Parties shall endeavor to refrain from imposing or maintaining unnecessary barriers to electronic information flows across

obligated each party “*shall allow* the cross-border transfer of information by electronic means, including personal information.”³³ Yet, exceptions to the achievement of a legitimate public policy objectives are recognized. This provision is one of the most remarkable achievement of the TPP as data is often the key production factor in the digital economy. The free transformation of data can further liberalize digital trade and lead to the growth of all related industries using information. Noticeably, the EU-Japan FTA may include a provision for ‘free flow of data,³⁴’ but limits to only that the Parties will reassess it within three years of the entry into force.

vi. Prohibition of Localization of Computing Facilities

The prohibition of location of computing facilities is a new trade norm stated only in the TPP, not found in any other trade agreements including the KORUS FTA.

borders.”

³³ TPP Article 14.11. Cross-Border Transfer of Information by Electronic Means.

1. The Parties recognise that each Party may have its own regulatory requirements concerning the transfer of information by electronic means.

2. Each Party shall allow the cross-border transfer of information by electronic means, including personal information, when this activity is for the conduct of the business of a covered person.

3. Nothing in this Article shall prevent a Party from adopting or maintaining measures inconsistent with paragraph 2 to achieve a legitimate public policy objective, provided that the measure:

(a) is not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade; and

(b) does not impose restrictions on transfers of information greater than are required to achieve the objective.

³⁴ EU-Japan EPA Consolidated Text (Status 5 July 2017) Article 6.1.2. Free Flow of Data.

The TPP clearly states that “No Party shall require a covered person to use or locate computing facilities in that Party’s territory as a condition for conducting business in that territory.”³⁵ Like the cross-border transfer of information, the prohibition under the legitimate public policy is excused. Numerous problems arise from the localization measures of computing facilities, such as data localization which can hinder the free flow of data. In addition, firms can suffer from unnecessary costs and burden as duplicate installation of data centers are needed, preventing efficient allocation of resources. Especially, it can be a big burden for SMEs which often lacks capital.

vii. Personal Information Protection

The TPP is the first trade agreement to impose a privacy obligation. It is stated that “each Party shall adopt or maintain a legal framework that provides for the

³⁵ TPP Article 14.13. Location of Computing Facilities

1. The Parties recognise that each Party may have its own regulatory requirements regarding the use of computing facilities, including requirements that seek to ensure the security and confidentiality of communications.

2. No Party shall require a covered person to use or locate computing facilities in that Party’s territory as a condition for conducting business in that territory.

3. Nothing in this Article shall prevent a Party from adopting or maintaining measures inconsistent with paragraph 2 to achieve a legitimate public policy objective, provided that the measure:

(a) is not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade; and

(b) does not impose restrictions on the use or location of computing facilities greater than are required to achieve the objective.

protection of the personal information of the users of electronic commerce.”³⁶ However, the specific privacy protection provisions are expected to be left to the freedom of the parties as there is no specific content about that. In this regard, the EU which is adopting relatively stronger privacy laws may conflict with the U.S. which is adopting relatively loose privacy laws.

Under the ‘Trust and Confidence in Electronic Commerce,’ the CETA also indirectly encourages parties to protect personal information. Especially, the EU emphasizes the role of international organizations. It states that each party “shall take into due consideration international standards of data protection of relevant international organisations of which both Parties are a member.”³⁷ The protection of personal information is once more stated under the ‘Dialogue on Electronic Commerce’³⁸ of the CETA.

³⁶ TPP Article 14.8.2. Personal Information Protection

To this end, each Party shall adopt or maintain a legal framework that provides for the protection of the personal information of the users of electronic commerce. In the development of its legal framework for the protection of personal information, each Party should take into account principles and guidelines of relevant international bodies.

³⁷ CETA Article 16.4. Trust and confidence in electronic commerce.

Each Party should adopt or maintain laws, regulations or administrative measures for the protection of personal information of users engaged in electronic commerce and, when doing so, shall take into due consideration international standards of data protection of relevant international organisations of which both Parties are a member.

³⁸ CETA Article 16.6.1 Dialogue on electronic commerce.

(d) the protection of personal information and the protection of consumers and businesses from fraudulent and deceptive commercial practices in the sphere of electronic commerce.

viii. Online Consumer Protection

The provision of ‘online’ consumer protection exists in both the KORUS FTA and the TPP. A new sentence of “each Party shall adopt or maintain consumer protection laws to proscribe fraudulent and deceptive commercial activities that cause harm or potential harm to consumers engaged in online commercial activities,³⁹” was added in the TPP. The obligation to protect online consumer protection is written under a strong legal language of ‘each Party shall maintain.’ As online consumers have no territorial boundary and can be applied very broadly, this provision can become controversial when applied. A similar provision may be included in the EU-Japan EPA, but unlike the TPP, it simply encourages parties to enhance consumer protection.

ix. Source Code

The provision regarding source code was included in the TPP for the first time. The TPP states that “No Party shall require the transfer of, or access to, source code of software owned by a person of another Party, as a condition for the import, distribution, sale or use of such software, or of products containing such software, in its territory.⁴⁰” A similar article may be included in the EU-Japan EPA in the future.

³⁹ TPP Article 14.7.2. Online Consumer Protection.

⁴⁰ TPP Article 14.17.1. Source Code

6. Policy Implications for Digital Trade

6.1. Challenges of Global Norm-Making of Digital Trade

The international community is challenged to cope with the rapid pace of change and broad impacts of the digital economy. The current international trade system is a legacy of the analog era. The traditional commodity and services trade was the main discipline back then, and the legal lacuna exists in today's digital era. In this regard, future challenges remain as the existing international rules and statistical methods cannot fully cover the unprecedented issues of digital trade. Digital trade is global by its nature, but territorial barriers still remain. Thus, global norm-making and rule-development are vital in this inchoate stage of the digital trade.

First, if digital trade is to be dealt with multilateral system of WTO, problem of how to address newly developed services exist. Technological development is leading to creation of new ICT-related services, and positive approach of GATS cannot follow up the speed and negative approach of the TPP is regarded as the solution. However, the TPP also cannot fully address the rapidly changing environment of the digital economy. For example, 'financial institution' or a 'cross-border financial service supplier of a Party' is not included in covered person⁴¹ under the definition of the TPP. Since financial

⁴¹ TPP Article 14.1: Definitions.

services excluded from e-commerce under the TPP, there is a problem how to address emerging technologies like Bitcoin.

In addition, China which is the largest e-commerce market in terms of market size which holds enormous big data, is excluded from the global norm-making of digital trade. Many wonder if China will be able to accommodate to the existing digital framework in the future. Currently, China cannot meet some important provisions of the TPP. For example, China requires location of computing facilities based on public safety and national security. They also do not allow free flow of data as censors and controls Google and Facebook through Internet monitoring system called ‘Great Firewall.’

Last but not least, harmonized rules and regulations for digital trade is absent. The process of liberalization at the multilateral level has not shown much of a progress ever since the introduction of the moratorium on custom duties on electronic transmissions in 1998. Even for the bilateral norm-making, limitations still remain. Even though the EU did not join the TPP, it tried to negotiate with the U.S. regarding the norms of digital trade through agreements like the Trade in Services Agreement (TiSA) and the Transatlantic Trade and Investment Partnership (TTIP). Especially, the TiSA was expected to expand the coverage of international norms regarding new digital services. However, as the U.S. officially pulled out of the TPP under the Trump administration, the future of the TiSA and the TTIP seems bleak. The momentum for the Regional Comprehensive Economic Partnership (RCEP) also disappeared after the U.S. withdrew from TPP. What is more, if the renegotiation for NAFTA (North American Free Trade

Agreement) is to be concluded, the TPP minus NAFTA members mean that core members are out of the agreement. Thus, there is not much economic reason for the rest of the countries to pursue the TPP. Under this scenario, the U.S. will push on to further bilateral arrangement of the renegotiation for the KOURS FTA and negotiation for the U.S.-Japan FTA. Then, the whole political dynamic will completely change which will ultimately affect the economic policies and rule-making of digital trade.

6.2. Policy Implications for Korea

Analyzing global norms-making of digital trade holds an important meaning for Korea's codification of digital trade. Proper rule-making is crucial as the question of how to build a framework for digital technology standards and business methods will determine the future direction of the industry. Since the new trade agreements led by the U.S. like TPP and TiSA are foundered or delayed under the Trump Administration, it is highly likely for the U.S. to impose the new e-commerce chapters to other FTAs like the NAFTA and the KORUS FTA when they are to be renegotiated. Rules made under TPP require higher level of liberalization for digital trade such as encouraging cross-border transfer of information by electronic means, prohibiting the use or location of computing facilities requirement, and deal with some contents not included in other trade agreements such as source code. This give huge policy implication for Korea and the Korean government should be ready for the renegotiation.

The NAFTA 2.0 is actually renegotiated based on the rules made in TPP, and the KORUS FTA 2.0 will probably follow the same steps if the renegotiation is to be pushed forward. Therefore, in-depth study on the TPP e-commerce chapter is necessary to prepare thoroughly for the KORUS FTA 2.0. Furthermore, the EU normally approached by the ‘me too’ strategy which is asking for the same treatment that the U.S. pursued. For example, the EU asked for the same deal with the NAFTA under the EU-Mexico FTA. If Korea is to renegotiate with the U.S., there is a high possibility that the EU will also ask for a renegotiation under the MFN treatment. The U.S. and the EU share the same idea of market liberalization, but their approach and manner to liberalize and the regulatory system are often different. For global regulatory coherence, the U.S. and the EU attempted to talk to each other under the TiSA and the TTIP, but negotiations are suspended under the Trump administration. Since Korea has FTAs with the both countries, Korea received attention on how it has handled the different approach of the two countries. However, Korea just adopted different rules of different countries such as adopting two different system for automobile. Further research on how to handle two different approaches of liberalization of the U.S. and the EU should be made.

Another big challenge is that Korea aims to become a leading country of the IT technology, but the international compatibility often falls behind. According to the OECD⁴², Korea has the highest ICT trade dependency in the OECD as the share of the total added value recorded 10.7% in 2013 while the OECD average was 5.5%. IT

⁴² OECD (2015). Digital Economy Outlook. p. 84.

technology is fundamentally changing the trade structure, and it is directly related to the competitiveness of Korea. For this reason, digital trade is regarded as a new growth engine, and fast and proper response is needed for Korea to stay competitive. However, Korea's international adaptability and compatibility often falls behind as Korean laws are restrictive on data flows. Korea is maintaining closeness to information technology and protection. Noticeable development in digital services business based on emerging technologies such as Airbnb, PayPal, and Google Maps are gaining worldwide attention and influencing the related industries.

However, the fact that most of the global business with emerging technologies are prohibited in Korea has big policy implications for Korea. After examining whether the core elements of digital trade such as data free flow and data localization can be applied to the current situation of Korea in contents wise, internal policy upgrade and further research are needed to facilitate digital trade. Policy reforms are needed to comply with new rules and regulations of digital trade. To make this possible, Korea should actively participate in global rule-making of digital trade.

7. Conclusion

The digital trade is an important driver for the economic growth, which enhances productivity and cultivates new markets. The rapid advance of various forms of digital trade will continually transform the nature of global trade and business in the foreseeable future. Changes in the global market paradigm in the digital age is calling for further codification of digital trade. The international society needs solutions to the legal vacuums of digital trade more urgently than ever since the digital economy is steadily progressing with an unprecedented speed and unpredictable direction.

As the multilateral norm-making of digital trade is lingering behind, the U.S. is taking a lead in the bilateral norm-making of digital trade. Currently the most developed and liberalized e-commerce chapter is the TPP. Free flow of data (Article 14.11: Cross-Border Transfer of Information by Electronic Means), data localization (Article 14.13: Location of Computing Facilities), and online consumer protection (Article 14.7: Online Consumer Protection) are the most important developments regarding digital trade under the TPP. Compared to the U.S., the EU is taking in a relatively protective position under the digital single market policy, yet it is trying to follow up the U.S.'s lead through the EU-Japan EPA, TiSA, and TTIP. Even though the U.S. withdrew from the TPP, it is still important as the U.S. and renegotiating the NAFTA and possibly the KORUS FTA based on the norms made under the TPP. Also, even though the negotiations for TiSA and TTIP have stopped for now, they are still meaningful as they marked the starting line of serious negotiation of digital trade between the two leading countries, the U.S. and the EU.

The global norm-making of digital trade holds important meaning for the codification of South Korea. Korea is known for its high ICT trade dependency, but its international compatibility often falls behind. The liberalization of digital trade is an unstoppable tide under the rapid development of digital technology. In this moment of decision whether to change to adopt or stay to fall behind, Korea should examine its international compatibility and try to adjust itself to the newly developing international norms for digital trade. Korea should actively participate in the global norm-making of digital trade. In this way, Korea will be able truly become a leading country in the digital era.

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Abstract in Korean

국문 초록

디지털 무역의 국제규범 제정: 무역 협정 비교 분석

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디지털 기술은 국제무역환경을 근본적으로 변화시키고 있다. 세계무역은 상품무역에서 서비스무역으로 확대되었으며, 이제는 더 나아가 디지털무역으로 확대되고 있다. 서비스산업의 디지털화는 대부분 거래의 디지털 전송을 가능하게 하여 국제무역의 전체 플랫폼을 변화시키고 있으며, 세계경제는 보다 혁신적인 비즈니스 모델로 나아가고 있다. 디지털 무역의 현저한 발전에도 불구하고 현존하는 국제규칙 및 통계 측정방법으로는 디지털 무역과 관련된 전례 없는 문제들을 완전히 해결할 수 없다. 디지털 무역의 다자간 표준 규범은 1998년 전자전송에 대한 관세면제를 도입한 이래로 별다른 진전을 보이지 않고 있고 이에 따른 법적 공백이 존재한다. 이에 따라 국제사회는 양자간 협상을 주목하고 있다.

미국과 유럽연합과 같은 선진국들은 자유무역협정을 통한 양자간 무역협정을 통해 디지털 무역의 국제규범 제정을 적극적으로 이끌고 있다. 특히 환태평양경제동반자협정(TPP)과 같은 미국 주도 하의 메가 FTA 에서 데이터 자유화, 데이터 현지화 등과 같은 디지털 무역의 핵심요소를 심도 있게 다루고 있다. TPP 하에 만들어진 디지털 무역 규칙은 보다 높은 수준의 자유화를 요구함에 따라 무역의존도가 높고 국제 호환성이 낮은 편인 한국에 큰 정책적 시사점을 준다. 이에 따라 본 논문은 디지털 무역규범의 발전에 대해 분석하고, 디지털 무역을 계량화하는 통계분석방법을 검토하여, 한국에 정책적 시사점을 제시하고자 한다.

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