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Master Thesis

**Digital Trade Agreements and
Korea's Video Game Industry**

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ABSTRACT

Digital Trade Agreements and Korea's Video Game Industry

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COVID-19 has sped up digitalization in business. The pandemic has also boosted digital native industries such as the gaming industry. Korea's video game industry has continued to grow in recent years, ranking 4th in terms of market share in 2020. At the same time, digital trade agreements have become a global frontier for trade. These include separate chapters on digital trade in regional trade agreements to digital-only trade agreements. Korea has recently concluded the Korea-Singapore Digital Partnership Agreement (KSDPA), its first ever digital-only trade agreement. The Agreement can be seen as a forerunner for Korea of digital trade agreements to come, and examining several provisions gleans important business implications for the country's video game industry.

Keywords: Digital Trade, Digital Trade Agreement, Video Game Industry, Korea-Singapore Digital Partnership Agreement

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국문초록

List of Abbreviations

APEC	Asia-Pacific Economic Cooperation
AR	Augmented Reality
CBPR	Cross-Border Privacy Rules
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
DAXA	Digital Asset eXchange Alliance
DEA	Digital Economy Agreement
DEPA	Digital Economy Partnership Agreement
DSB	Dispute Settlement Body
FPS	First Person-Shooter
FTA	Free Trade Agreement
GDPR	General Data Protection Regulation
IP	Intellectual Property
IPEF	Indo-Pacific Economic Framework
IT	Information Technology
KFTC	Korea Fair Trade Commission
KSDPA	Korea-Singapore Digital Partnership Agreement
MMORPG	Massively Multiplayer Online Role-Playing Game
NAFTA	North American Free Trade Agreement
NFT	Non-Fungible Token
OECD	Organization for Economic Cooperation and Development
PC	Personal Computer
PDPA	Personal Data Protection Act
PIPA	Personal Information Protection Act
PIPC	Personal Information Protection Committee

RTA	Regional Trade Agreement
SADEA	Singapore-Australia Digital Economy Agreement
SME	Small and Medium Enterprise
SPS	Sanitary and Phytosanitary
TBT	Technical Barriers to Trade
TRIPS	Trade-Related Aspects of Intellectual Property Rights
USMCA	United States-Mexico-Canada Agreement
UNCITRAL	United Nations Commission on International Trade Law
UKSDEA	United Kingdom-Singapore Digital Economy Agreement
VR	Virtual Reality
WTO	World Trade Organization

I. Introduction

Digitalization, or digital transformation, has been a keyword in business for some years, even before the pandemic broke out. It was routinely cited as a key strategy component by business leaders. When COVID-19 hit, the trend only accelerated.

In international commerce, reflecting this widespread push for digital transformation, is the increase in numbers of digital trade agreements. Ever since the US has been blocking appointments and reappointments of its WTO Appellate Body members, the multilateral dispute settlement system has been largely paralyzed and regional trade agreements (RTAs) have become the norm in international treaty-making. Separate chapters on digital trade were included in mega trade deals like the USMCA and the CPTPP. A new phenomenon in the form of digital economy agreements has also begun to appear, with the Digital Economy Partnership Agreement signed between Chile, New Zealand, and Singapore being the first of its kind to be open to all WTO members. These agreements are expected to support businesses, small and medium-sized enterprises (SMEs) in particular, to engage in electronic commerce and digital trade.

While the COVID-19 pandemic harmed most industries, the IT sector was one of the few that reaped rewards from its effects. In particular, the video game industry benefited from both the quickened pace of digital transformation and the stay-at-home orders. According to a report by the NPD Group, video game sales in North America in March 2020 were up 34% from those in the same month the previous year. Sales of video game hardware were up by 63% and included more than twice the number of Nintendo

Switch consoles sold.¹ South Korea's video game industry also grew at a rapid pace, and it is hard not to be curious of the potential impact of digital trade agreements for its businesses.

This paper seeks to explore the possible business and legal implications digital trade agreements might have on South Korea's video game industry. Chapter II looks at the state of the domestic video game industry. The characteristics of the industry are analyzed to see why discussion of possible effects of digital trade agreements is appropriate for Korea. Chapter III looks at relevant regulations in South Korea, since these rules will be subject to possible changes when international trade agreements are signed. Chapter IV examines the history of digital trade agreements. Digital trade agreements at the multilateral level and the regional level are discussed, followed by an analysis of the relatively new digital economy agreements. In Chapter V, prospective legal and business issues are reviewed by focusing on five different issues present in most existing digital trade agreements: cross-border data flow, location of computing facilities, protection of personal information, online consumer protection, and cybersecurity. Chapter VI presents the conclusion.

II. South Korea's Video Game Industry

1. Growth

BTS and Squid Game have been a global force in the entertainment industry lately, so it may seem that music and film are at the forefront of the South Korean pop culture takeover. Judging statistically however, it is the video game industry that leads the way. In the year 2020, South Korea's video game

¹ Chojnacki, R. (2022, November 8). Third quarter 2022 US consumer spending on video game products decreased 5% to \$12.34 billion. The NPD Group. Retrieved December 7, 2022, from <https://www.npd.com/news/press-releases/2022/the-npd-group-third-quarter-2022-us-consumer-spending-on-video-game-products-decreased-5-to-12-34-billion/>

exports achieved 8.2 billion USD in sales, a 23.1% jump from the year before.² South Korea has a 6.9% market share in the global video game industry today, ranking fourth in the world behind, in order, the US, China, and the traditional powerhouse Japan.

2. Market Characteristics

The infrastructure in South Korea is ideal for gaming. The country has one of the best internet connections in the world in terms of both availability and speed. Consumers are tech-savvy and ready to embrace new technologies. Such readiness is evidenced by the successful launching of widespread 5G networks to the public, which in turn accelerated growth of related technologies like AR and VR. South Korea was the first country in the world to adopt 5G networks on a national scale.³

The high-speed internet connection makes powerful mobile gaming possible. Naturally, the mobile gaming market in South Korea has become the top market segment over traditional PC gaming. Mobile and PC games each represent 57.4% and 26.0% of total revenue in the country. Console games represent a meager 5.8%.⁴ However, cross-platform support is becoming more important in the industry, and the lines between platforms are blurring by the minute. There have been cases where traditional PC games have been successfully converted into mobile games, and many Korean video game developers are actively seeking to develop games for consoles as well. Krafton's *The Callisto Protocol*, released on December 2, 2022, is available for both PC and consoles. Nexon's *Kartrider: Drift*, expected to begin service on January 12 2023, will be available on PC, mobile, and consoles at the same time.

² 2021 WHITE PAPER ON KOREAN GAMES

³ Morris, A. (2021, April 16). South Korea adopts 5G network sharing to boost rural 5G. Light Reading. Retrieved December 15, 2022, from <https://www.lightreading.com/asia/south-korea-adopts-5g-network-sharing-to-boost-rural-5g/d/d-id/768817>

⁴ Ibid.

PC bangs also play an important role for the South Korean gaming market. A PC bang is a type of LAN gaming center developed out of internet cafes that has become a hub for both professionals and casual gamers. Although the per capita penetration of PCs in Korea is one of the highest in the world, PC bangs remain popular because they provide a social meeting place for gamers to meet and high-end PCs specifically designed for gaming. Most PC bangs nowadays offer food as well.

Cultural factors such as the prevalence of PC bangs and the widespread love for online video games have turned esports in South Korea into an organized structure that has partnered with some of the biggest corporations in the nation. Esports itself has developed into a multi-billion dollar industry, one in which South Korea excels at. The high interest in esports has led to an increase in viewership on streaming platforms such as Youtube and Twitch as well. Professional gamers have emerged, with the highest-paid players earning 7 figure salaries.

3. Leading Firms

The traditional powerhouses in South Korea's gaming industry are the so-called "3N's": Nexon, NCSoft, and Netmarble. Serving as both video game developers and publishers, these firms have had enormous influence over the industry from its inception. They have all produced games that won the highest prize in the annual Korea Game Awards. In recent years, however, they have been facing harsh criticism for exploiting the pay-to-win system in their games. Users complain of excessive monetization, especially in massively-multiplayer online role-playing games (MMORPGs) like NCSoft's Lineage series.

Meanwhile, other promising firms rose to threaten the reputation of the "3N's". Dubbed the "SKKP" in newspaper headlines, these are Smilegate, Krafton, Kakao Games, and Pearl Abyss. Smilegate is known for titles like the first-person shooter (FPS) Crossfire and the MMORPG Lost Ark. Krafton is the developer and publisher of the world-famous PUBG: Battlegrounds. Kakao Games has experienced rapid

growth with the recent success of the mobile game Odin: Valhalla Rising. Pearl Abyss is the developer of the MMORPG Black Desert.

Most video game companies are looking to progress beyond their original role as just developers. Several of them that have grown large enough have taken on the role of publishing games produced by other developers. Companies like Nexon and Smilegate are looking to use their intellectual property (IP) to produce TV shows and films. Nexon has invested in the film and television production company AGBO led by directors Anthony and Joe Russo best known for their work in the Marvel Cinematic Universe. Smilegate has produced a TV show based on their Crossfire IP and distributed it in China through Tencent Video.

Certain companies are looking to branch into NFT as well. For instance, WeMade has developed Wemix, a blockchain gaming platform that services cryptocurrency of the same name. It was delisted, however, after a decision made by Korea's Digital Asset eXchange Alliance (DAXA), which said that WeMade had not properly disclosed the number of tokens outstanding. The reasoning was that since crypto assets, unlike the stock market, have no regulator nor an absolute means of determining price, the distribution number is crucial as the price is decided as a direct result of the balance between supply and demand.

III. Regulations in South Korea

Conventional trade agreements often require changes to domestic regulations, and digital trade agreements will probably do so as well. The language of digital trade agreements that have been drafted so far may be largely aspirational at best, but it will become more specific as digital trade itself incrementally takes a clearer form. Subsequently, these treaties may mandate changes to local rules. Since it is ultimately these local regulations that South Korean video game firms will have to answer to, it is

important to look at what these regulations look like, even when the end goal of the paper is to gauge the impact of digital trade agreements on the industry. The first domestic regulation to look at is the Personal Information Protection Act (PIPA).

1. PIPA

As proven by Europe's ratification and enforcement of the General Data Protection Regulation (GDPR), protection of privacy has become a crucial issue in digital trade. Discussion on the issue started in the WTO Ministerial Conferences and continued in RTAs. Provisions on protection of personal information have been included in almost every digital trade agreement concluded so far, including the CPTPP, USMCA, DEPA, and KSDPA.

The PIPA is the most likely to come under scrutiny when talks of international data protection surface between negotiating papers. The purpose of the Act is to prescribe how personal data is processed in order to protect the rights and interests of all citizens. It aims to protect personal data from unnecessary collection, unauthorized use or disclosure, or abuse.

The most recent amendments to the act came into force on August 5, 2020. The amendment to the PIPA included upgrading of the Personal Information Protection Commission (PIPC) into a central administrative agency. The PIPC is an independent body established under the PIPA to coordinate different opinions among government agencies regarding issues on data protection.

2. Game Industry Promotion Act

With South Korea's video game industry being valued at billions of dollars and leading exports in the media sector, it is not surprising that the country has its own regulatory system over the industry. Called the Game Industry Promotion Act, the framework seeks to promote the video game industry and establish

a healthy gaming culture thereby contributing to the development of the national economy and the improvement in the quality of people's cultural life.⁵ Enacted in 2006, it is the world's only independent law governing the video game industry. Although intended to promote and raise the global competitiveness of the industry, the act also includes many regulations that have caused controversy for their oppressive nature. For example, Article 12.3 of the act requires firms to limit gameplay if a teenage user or their parent requests so.⁶ Furthermore, it has been pointed out that policies for the promotion of the game industry were insufficient and that they do not adequately reflect whatever changes in the industry. Not surprisingly, a complete revision of the act was proposed in December 2001 with the aim of responding to the changes in video game trends and strengthening user protection.⁷ It still remains to be seen if the act will be able to reflect recent legal trends like the metaverse and cryptocurrency.

IV. Digital Trade Agreements

The history of digital trade agreements is both ongoing and turbulent. The concept of digital trade itself is still in the process of being formulated. The fact that the term for the phenomenon has evolved from “e-commerce” to “digital trade” and is still referred to by different names, and the fact that there has been an unending controversy over the definition of a “digital product” attest to the volatility of the concept.

Digital trade regulations can be examined on three different levels: the multilateral, the regional, and the national. The multilateral discussions started with the WTO Work Programme on E-Commerce established by the General Council at the second Ministerial Conference at Geneva. Also declared at the

⁵ 게임산업 진흥에 관한 법률

⁶ IBID

⁷ 2021 WHITE PAPER ON KOREAN GAMES

forum was the moratorium on customs duties on electronic transmissions. The General Council has been overlooking other cross-cutting issues ever since.

With the Doha Round in stalemate and the Appellate Body of the Dispute Settlement Body paralyzed, it seemed unlikely that talks on e-commerce on the multilateral level would make any progress. Countries then started pursuing their agendas under regional fora. The US was especially aggressive in this area, including e-commerce chapters in its TPP regulations and digital trade chapters in the USMCA negotiations. They also concluded the US-Japan Digital Trade Agreement, the first example of a country deviating from the convention of pursuing digital trade objectives by including relevant provisions in existing FTAs.

1. Multilateral

Digital trade agreements have their roots in discussion of e-commerce in the WTO. In May 1998, the Declaration on Global Electronic Commerce was adopted at the second Ministerial Conference (MC-2). At the conference, ministers also declared they would continue the moratorium on customs duties on electronic transmissions. They also called for the establishment of a Work Programme to examine trade issues related to global e-commerce. The programme was adopted by the General Council in September 1998, and regular discussions on e-commerce in various WTO bodies have been held.

While the General Council plays a central role, four WTO bodies are charged with carrying out the Work Programme: the Council for Trade in Services, the Council for Trade in Goods, the Council for TRIPS, and the Committee on Trade and Development. In 2001, the General Council began examining cross-cutting issues under the program. These issues include, but are not limited to, classification of the content of certain electronic transmissions such as the definition of “e-commerce” and the issue of “likeness”, development-related issues like the participation of developing countries and transfer of technology, and imposition of customs duties on electronic transmissions.

The Work Programme defined e-commerce as the “production, distribution, marketing, sale or delivery of goods and services by electronic means”.⁸ As discussed, the 1998 Work Programme had many objectives. The General Council has attempted to successfully navigate the various e-commerce negotiations, but WTO member countries had different agendas for digital trade. As a simple example, some countries advocate the complete abolition of digital trade barriers while others stress the necessity of data protection measures. Such conflicting national interests and the limitations of existing digital trade agreements that give rise to regulatory uncertainties have made it difficult to produce clear results so far.

The WTO's digital trade negotiations had been stalled for 20 years, but the global coronavirus pandemic and the quickened pace of digitalization that it vitalized gave the talks a new turn in 2020. Before 2020, the WTO e-commerce negotiations had been seeing limited developments in responding to the rapid growth of the digital economy. In particular, the rapid growth of China's digital economy and the Chinese government's push to expand the sector's global influence increased calls for establishing a trade order. Furthermore, Europe has strengthened protection of personal information. Discussion on digital tax, industrial subsidies, and regulations on market competition have become active again.⁹ Reflecting this trend, at MC-11 in Buenos Aires, 71 WTO members issued a joint statement where they announced their intention to launch exploratory work on trade-related aspects of electronic commerce. The members of this group account for around 77% of global trade. In January 2019 in Davos, 76 WTO members confirmed the launch of negotiations on electronic commerce. The initiative is co-convened by Australia, Japan and Singapore and has expanded to include 86 members. The negotiations currently cover six themes: enabling e-commerce, openness and e-commerce, trust and e-commerce, cross-cutting issues, telecommunications, and market access.¹⁰

⁸ The Work Programme on Electronic Commerce

⁹ 김민정, “디지털통상 규범 발전과 통상법 쟁점 연구”, 「통상법무정책 제 1 호」, 2021

¹⁰ https://www.wto.org/english/thewto_e/minist_e/mc12_e/briefing_notes_e/bfecom_e.htm

2. Regional

Due to various reasons, including the crisis in the dispute settlement system, discussion on digital trade in the multilateral system has stalled, but it nevertheless continued in different regional trade agreements. Interested countries, mainly the US, began including separate chapters on e-commerce or digital trade in their FTAs. The US has concluded many FTAs that contain chapters on electronic commerce or digital trade, including the CPTPP, the USMCA, and the Korea-US FTA. The Korea-US FTA is significant in that its e-commerce chapter is the first to recognize the importance of free flow of information and the protection of personal information.¹¹ The CPTPP, signed by 11 countries, has a chapter on e-commerce with 18 provisions, while the USMCA signed between the US, Canada, and Mexico has a chapter on digital trade, also with 18 provisions.

Traditional trade agreements sometimes include chapters on digital trade issues and tend to focus more on market access, while digital trade agreements push for domestic regulatory reforms and “soft” cross-border collaboration on issues like data innovation, digital identities, cybersecurity, and consumer protection.¹² For countries with relatively high digital competitiveness, agreements on the regional level can be a viable method to overcome digital trade barriers.

2-1. CPTPP

The CPTPP has a chapter on e-commerce made up of 18 provisions. The increase in the number of provisions compared to previous FTAs give a glimpse of the comprehensiveness of the chapter compared to previous regulations on e-commerce. The chapter contains provisions that make permanent the WTO

¹¹ Article 15.8 of the Korea-US FTA reads:

“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 borders.

¹² “Digital Economy Agreements Are a New Frontier for Trade – Here’s Why.” World Economic Forum, <https://www.weforum.org/agenda/2022/08/digital-economy-agreements-trade/>.

tariff-free principle between the signing parties. This principle is expected to continue to be the bedrock in future regional trade negotiations, and has already been established in the USMCA, KSDPA, and digital economy agreements. The CPTPP also has provisions that establish standards for ensuring free movement of data, considered to be one of the most important issues in digital trade discussions.

The CPTPP strengthened the level of enforcement by adopting essential provisions from the Korea-US FTA, like the above-mentioned freedom of movement of information and non-discrimination measures for digital products. In addition to relevant provisions in the Korea-US FTA, new provisions on personal information protection, prohibition of localization of computing facilities, and prohibition of the source code requirement were added, strengthening the free flow of data and laying the foundation for the international regulatory system for digital commerce. Furthermore, spam mail and cybersecurity cooperation provisions expanded the scope of digital trade. Making almost all provisions legally binding suggests a strong commitment to establishing a digital trade order. The South Korean government has displayed a strong will to join this mega trade deal as well.

2-2. USMCA

The USMCA promoted by the Trump administration evolved out of the NAFTA. While the NAFTA signed in 1992 did not include provisions on e-commerce, the USMCA had a chapter dedicated to the subject with 18 provisions. In the USMCA negotiations, for the first time, the term “digital trade” was used instead of “e-commerce”. Although “digital trade” was not explicitly defined in the chapter, the introduction of the new term is seen as an effort to implement a digital trade framework stronger than that of the CPTPP.

The system of the USMCA’s digital trade chapter is similar overall to that of the CPTPP, as the latter accommodated most of the provisions in the former. In terms of enforcement level, provisions that

stopped at an advisory level in the CPTPP were strengthened to mandatory provisions in the USMCA.

The agreement includes new topics such as interactive computer services and open government data.

Some minor deviations from the CPTPP should be taken note of. For example, regarding location of computing facilities, the USMCA does not include exceptions for measures intended “to achieve a

legitimate public policy objective”. Regarding protection of personal information, the USMCA

recognizes the principles and guidelines of international organizations like the APEC and the OECD.¹³

The introduction of provisions more specific than those in the CPTPP is seen as a breakthrough

development, one that was probably influenced by Europe's establishment of new international standards for strengthening data protection standards.

3. Digital Economy Agreements

A new type of digital trade agreements have been birthed to become the new frontier for trade.

Agreements that establish digital trade rules and digital economy collaborations between two or more countries are dubbed digital economy agreements (DEAs). They are “digital-only” agreements that seek to develop international frameworks to foster interoperability of standards and systems. Singapore has taken a somewhat leadership role in this department, having concluded four such agreements so far, the most numerous for a single country.

Businesses are expected to enjoy numerous benefits from the DEAs. For one, they can save time by digitizing administration. Technologies such as electronic contracts and electronic signatures can help sign contracts more quickly, cut paperwork, and provide more transparency. Businesses can also save money when there are no customs duties in place. They can import and export digital content without facing tariff restrictions. Businesses are also protected from unfair disclosure requirements. They can

¹³ USMCA Article 19.8.2

avoid forced transfer of source code or cryptographic information as a condition for entering the other party's market.

3-1. DEPA

The Digital Economy Partnership Agreement (DEPA) was signed between the small open economies of Singapore, Chile, and New Zealand. The three countries are known for being forward-thinking in their drafting of new treaties, as the Trans-Pacific Strategic Economic Partnership (P4) that they signed along with Brunei later became the basis for the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). The DEPA is worth noting for a few reasons. To begin with, it is the first agreement of its kind, establishing new approaches and collaborations in digital trade issues. It addresses issues that have not been dealt with before, such as digital identities, paperless trading, e-invoicing, and FinTech.

What merits close attention is the unique structure of the DEPA. It is made up of a series of modules that cover the wide range of topics mentioned above. There are 16 modules with about 70 provisions. The modules are like chapters in conventional free trade agreements in that they contain definitions of the terms used in each module, the purpose of each module, and then provisions. Meant to be building blocks, countries can choose to dock directly onto the DEPA and expand on the agreement with new members. Governments can also choose to pick up and use the modules in part or in whole. They can slot them into other agreements or opt to align domestic policies to the DEPA.¹⁴ Such ease of use allows interested countries to quickly start shaping rules and norms rather than go through the drawn-out process of formal trade negotiations.

¹⁴ Elms, D. (2020, January 28). *Unpacking the Digital Economy Partnership Agreement (DEPA)*. Asian Trade Centre. Retrieved December 3, 2022, from <https://asiantradecentre.org/talkingtrade/unpacking-the-digital-economy-partnership-agreement-depa>

As can be expected from the first multinational trade deal dedicated solely to digital trade with provisions numbering up to about 70, the scope of the DEPA is very comprehensive. It encompasses both provisions that adopt those of conventional trade agreements that govern the electronic aspects of customs, e-commerce, and goods and services trade and provisions that deal with the new issues in trade in the field of digital technology or digital economy.

Provisions on paperless trade, domestic electronic transactions framework, logistics, electronic invoicing, express shipments, and electronic payments are meant to encourage adherence to existing WTO regulations on trade facilitation. They require parties to maintain legal frameworks consistent with the principles of the UNCITRAL.¹⁵ Module 3 and 4 consist of provisions that build on existing WTO and FTA e-commerce treaties. They make permanent the WTO tariff-free principle while reinforcing non-discriminatory treatment of digital products. The obligations for ICT products that use cryptography, introduced as part of CPTPP and USMCA TBT regulations, are present in Module 3.

The DEPA embraces all of the core principles of digital trade agreements that came before such as protection of personal information, cross-border transfer of information by electronic means, and location of computing facilities.¹⁶ Prompting cooperation for cybersecurity to promote secure digital trade, requiring suppliers to maintain measures regarding unsolicited messages, and setting principles on access to and use of the Internet are all provisions present in the DEPA that were adapted from the CPTPP and the USMCA.

The provisions that deal with the new issues in digital trade are less about regulating trade and more about encouraging cooperation on themes that all parties may be unfamiliar with. They are particularly noteworthy because they were not included in previous e-commerce and digital trade frameworks. Key provisions are those on digital identities, FinTech, artificial intelligence, data innovation, and open

¹⁵ DEPA Article 2.3

¹⁶ DEPA Module 4

government data.¹⁷ They require parties to develop domestic legal frameworks and standards and collaborate on interoperability. Other new issues that are dealt with are cooperation to enhance trade and investment opportunities for SMEs, and digital inclusion.¹⁸

3-2. KSPDA

In December 2021, South Korea's Trade Minister Yeo Han-Koo and Singapore's Second Minister for Trade and Industry Tan See Leng announced the conclusion of the Korea-Singapore Digital Partnership Agreement (KSDPA), the first digital trade agreement for South Korea. It was followed by a legal examination of the treaty and deliberation process. The agreement comes after 10 rounds of negotiations conducted through video conferencing, following their launching in June 2020.

Covered areas and issues closely follow those in the DEPA and the SADEA. Its wide range incorporates many issues in the digital economy sector, including location of computing facilities, personal information protection, and open government data. Just as the SADEA replaced Chapter 14 of the Singapore-Australia FTA with its Annex A, the KSDPA replaced Chapter 14 of the Korea-Singapore FTA with its own Annex A. The KSDPA consists of 34 provisions.

The KSDPA holds significance for South Korea for a number of reasons. To begin with, it is South Korea's first ever digital trade agreement. Despite its reputation as one of the most technology-driven nations in the world, Korea had not been a part of any digital trade agreement. The country has announced in early 2021 its intention to join the DEPA pact, and is also looking to sign separate digital trade agreements with the UK and the EU. The KSDPA became the first to be concluded. South Korea plans to seek closer cooperation in establishing the digital trade order across the Asia-Pacific region by expanding

¹⁷ DEPA Module 7, Module 8, Module 9.

¹⁸ 김민정, "디지털통상 규범 발전과 통상법 쟁점 연구", 「통상법무정책 제 1 호」, 2021

the Digital Economy Partnership Agreement (DEPA) network and engaging in negotiations on digital areas of the Indo-Pacific Economic Framework for Prosperity (IPEF).¹⁹

Furthermore, Singapore is widely regarded as a digital technology hub and aggressively pursues digital cooperation initiatives to cement such status. All three co-conveners of the negotiations on e-commerce in the WTO – Australia, Japan, and Singapore – have concluded digital trade agreements. Australia has signed such an agreement with Singapore and Japan has signed the US-Japan Digital Trade Agreement. Singapore has signed the most digital-only trade agreements so far. Along with the KSDPA, Singapore has signed four digital trade agreements, including the DEPA, the Singapore-Australia Digital Economy Agreement (SADEA), and the United Kingdom-Singapore Digital Economy Agreement (UKSDEA). So in effect, digital trade agreements signed with Singapore become the standard for subsequent similar agreements. Examining legal issues present in the KSDPA and how they will affect business for the video gaming industry in South Korea is therefore a valid method of analyzing how the global trend in digital commerce will relate to the domestic industry.

With the KSDPA, Korean businesses hope to boost their ASEAN market penetration. They expect to benefit from tapping into e-commerce platforms like Shopee and Lazada. The digitized trade and clearance process will reduce transaction costs and lower entry barriers for SMEs and startups. Singapore's reputation as an ideal testbed for startups due to its free and open business environment should appeal to those engaging in trade.

The two countries rank in the top 10 of the IMD World Digital Competitiveness ranking. Singapore is a CPTPP member as of 2021 and Korea has applied to join the trade deal. Considering such future readiness in the digital trade area, it can be assumed that the KSDPA negotiations began with the intention of establishing and spearheading digital trade norms.

¹⁹ MOTIE press release

Accordingly, the provisions in the KSDPA reflect the latest issues. For example, provisions on location of computing facilities for financial services, not included in the CPTPP, were included. While the source code provisions in the SADEA were a strengthened version of those in the CPTPP, the KSDPA again introduced a more streamlined adaptation.²⁰ It looks as though such provisions are still in the process of developing, each iteration being modified to suit interested parties' specific needs.

The trend of incorporating provision related to the digital economy from conventional trade agreements into digital trade agreements seems to continue. Like in the SADEA, TBT provisions on ICT products that use cryptography were included in the KSDPA.²¹ Unlike the SADEA, provisions on internet interconnection charge sharing or submarine telecommunications cable systems are missing.

One of the main characteristics of the KSDPA is that it emphasizes interoperability. The importance of standards may be emphasized in digital trade agreements generally, but South Korea and Singapore go beyond simply recognizing such importance, having many of the provisions support the development of standards and obligate participation in the development of international standards. For example, regarding data innovation, the two countries agree to cooperate on the development of policies and standards for data portability.²² Furthermore, in the field of artificial intelligence, the two countries agree to collaborate on the development of frameworks through relevant regional and international fora, while at the same time obligating each other to consider internationally-recognized principles or guidelines when developing such systems.²³ Another example may be the provision on digital identities, which encourage the establishment or maintenance of frameworks to foster interoperability or common standards in the field.

²⁰ KSDPA Article 14.19

²¹ KSDPA Article 14.18

²² KSDPA Article 14.25

²³ KSDPA Article 14.28

The KSDPA follows the example of SADEA to introduce provisions on standards and conformity assessment procedures for the digital economy. Some view this as a de facto beginning of TBT discussions in digital trade treaties.²⁴ Of course, substantive regulations to remove technical barriers have yet to be introduced, but provisions have been written to promote cooperation in the development of standards.

4. Digital Trade Agreements and Korea's Video Game Industry

The characteristics of South Korea's video game industry make it likely to be susceptible to digital trade agreements. Due to the country's high-speed internet connection, PC and mobile markets make up the bulk of its video game industry. As these platforms inherently involve data transfers, the industry can only be highly sensitive to pertinent regulations. Furthermore, the game industry is the biggest content industry in South Korea in terms of export value. The domestic market consists of a population of just 50 million people, and it is one that is aging and not likely to see significant growth. So domestic companies have no choice but to reach out for foreign markets, making discussion of the possible impact of trade agreements even more necessary.

V. Prospective Legal Issues

1. Cross-Border Data Flow

The issue of uninhibited cross-border data flow is dealt with in every digital trade agreement, whether it is included in a separate chapter on digital trade in a traditional trade agreement or in a digital economy

²⁴ 김민정, "디지털통상 규범 발전과 통상법 쟁점 연구", 「통상법무정책 제 1 호」, 2021

agreement. Just as removing tariffs on commodities is at the essence of FTAs, abolishing inhibitions on trade of digital products is at the essence of digital trade agreements.

The second paragraph of Article 14.14 in the KSDPA reads that “Neither Party shall prohibit or restrict the cross-border transfer of information by electronic means, including personal information, if this activity is for the conduct of business of a covered person.”²⁵ It is clear from this paragraph that the Agreement is intended to make the transfer of data as free as possible. Being able to share more data without restrictions reduces administrative and financial compliance costs and makes it easier for organizations and businesses to trade and operate in participating countries. New markets are then available to digital trade - from startups to multinationals - and consumers benefit in the form of lower prices.²⁶

Allowing free cross-border data flow is to reduce administrative burdens and having to protect sensitive data are two sides of the same coin. The article on cross-border transfer of information in the KSDPA follows that in the DEPA almost word for word. The first paragraph of Article 14.14 reads that “the Parties recognise that each Party may have its own regulatory requirements concerning the transfer of information by electronic means”.²⁷ Here, the agreement leaves the establishing of a regulatory framework on the flow of digital information up to each Party.

In South Korea, the so-called “3 data bills” govern the use of data. The bills refer to the revised versions of 3 existing acts: the Personal Information Protection Act (PIPA), the Credit Information Use and Protection Act, and the Act on Promotion of Information and Communications Network Utilization and

²⁵ KSDPA Article 14.14.2.

²⁶ Department for Digital, C. (2022, July 5). *New Data Agreement with the Republic of Korea to Spark New Era of Digital Trade*. GOV.UK. Retrieved December 8, 2022, from <https://www.gov.uk/government/news/new-data-agreement-with-the-republic-of-korea-to-spark-new-era-of-digital-trade>

²⁷ Article 14.14 of the KSDPA reads:

“The Parties recognise that each Party may have its own regulatory requirements concerning the transfer of information by electronic means, provided that requirements are not arbitrary or a disguised restriction on trade and are proportionate.”

Information Protection. Their aim is to facilitate the use of data for business purposes. As these latest revisions lean toward making it easier for businesses to use data and thereby usher in the Fourth Industrial Revolution for the country, it remains to be seen whether precautions implemented in the process are enough to satisfy the level of protection aspired in the KSDPA.

For Singapore, the Personal Data Protection Act (PDPA) provides the regulatory framework over transfer of information by electronic means. It recognizes both the need to protect individuals' personal data and the need of organizations to collect and use such data for legitimate purposes. Designed to complement Singapore's sector-specific legislative and regulatory frameworks such as the Banking Act and the Insurance Act, it also provides for the establishment of a national Do Not Call Registry.²⁸

The third paragraph of the same article provides room for potential disputes. It reads that as long as measures are "not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade" and "does not impose restrictions on transfers of information greater than are required to achieve the objective", nothing shall prevent a Party from adopting or maintaining measures inconsistent with the second paragraph.²⁹ Apparently, when these caveats are met, countries can adopt measures that run against the non-restrictive nature of the Agreement.

Provisions that prohibit arbitrary discrimination have often been used by complainant countries in WTO disputes. In DS495 regarding South Korea's import bans and testing and certification requirements for radionuclides, Japan challenged such measures for being more trade-restrictive than necessary, and for arbitrarily or unjustifiably discriminating against Japanese food products and constituting a disguised

²⁸ "PDPC: PDPA Overview." Personal Data Protection Commission, <https://www.pdpc.gov.sg/Overview-of-PDPA/The-Legislation/Personal-Data-Protection-Act>.

²⁹ KSDPA Article 14.14.3.

restriction on international trade.³⁰ The Agreement on the Application of Sanitary and Phytosanitary (SPS) Measures, on which this dispute was based, explicitly states against restrictive practice.³¹

China is currently the biggest market for South Korea's games by far.³² Both China and South Korea have shown interest in joining the DEPA, and if they both accede to the agreement, the licensing of Korean games could finally be made easier. South Korean video game developers and publishers have had notorious difficulty having their games approved by the Chinese government for service. South Korean companies have been attempting various ways to circumvent Chinese censoring. They range from collaborating with Chinese developers to establishing independent firms in China. In the case of the former, South Korean firms often co-develop video games with Chinese developers using IP that has already seen success in Korea. The strategy guarantees at least partial success because it uses established IP, while at the same time avoiding harsh Chinese censorship because the game will be registered as local in China. In some cases, companies opt to downright found new companies in China. Video games developed by such companies will all be registered as China-made. Nexon, for instance, founded the company Century Tiancheng in China's mainland using Chinese capital for this purpose.

Coupled with the provision on non-discrimination of digital products, the opening up of cross-border data flow may mean significant gains for South Korean video game companies. The non-discrimination principle means that once it comes into practice the Chinese government will be hard put to deny service to Korean games when they allow service for locally developed games. The obligation to allow cross-

³⁰ *World Trade Organization*. WTO. (n.d.). Retrieved December 4, 2022, from https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds495_e.htm

³¹ Article 2.3 of the SPS Agreement reads:

"Members shall ensure that their sanitary and phytosanitary measures do not arbitrarily or unjustifiably discriminate between Members where identical or similar conditions prevail, including between their own territory and that of other Members. Sanitary and phytosanitary measures shall not be applied in a manner which would constitute a disguised restriction on international trade."

Article 5.6 of the same agreement reads:

"Without prejudice to paragraph 2 of Article 3, when establishing or maintaining sanitary or phytosanitary measures to achieve the appropriate level of sanitary or phytosanitary protection, Members shall ensure that such measures are not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection, taking into account technical and economic feasibility."

³² 2021 WHITE PAPER ON KOREAN GAMES.

border data flow will mean that Korean firms will be able to use data gathered from their Chinese services to target advertisements at specified Chinese users. Of course, such auspicious forecasts are qualified by the clause allowing inconsistent measures intended for “a legitimate public policy objective”. There is no knowing what kind of rationale the Chinese government will use to justify differential treatment, as it has cited inclusion of cults, politics, or even appearance of ghouls in games as reasons for blocking Korean games.

2. Location of Computing Facilities

The issue regarding location of computing facilities has been another important matter in the discussion around freedom in digital trade against national sovereignty. Requiring firms to locate their computing facilities in the country where they provide service is inevitably a stumbling block to business. Data localization regulations, if implemented, require data collected on a country’s citizen to be retained in that country. The evolution and spread of cloud computing makes meeting such a requirement even more complicated.

The second paragraph of Article 14.15 reads that “Neither 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.”³³ Although the third paragraph allows exceptions for measures that seek to achieve legitimate public policy objectives, this second paragraph makes explicit the possibility of companies running service without having to locate their facilities in customer countries.

In principle, data should be allowed to be processed wherever, but there are instances where governments mandate localization of data for security purposes. Cases of privacy breach may have opened up eyes to the need for localization measures. Such cases range from incidents in the private sector like the 2013

³³ KSDPA Article 14.15.2.

Yahoo breach, estimated to have exposed 3 billion accounts, to incidents in the public sector like the highly controversial Snowden disclosures that involved governments of various nations. Nowadays, countries cite various reasons for requiring data to be localized. The reasons include national security, prevention of cybercrime, and protection of personal information. For instance, Europe’s General Data Protection Regulation(GDPR) creates de facto localization requirements by strictly regulating data transfers to “unsafe” geographies.³⁴

South Korea and India are advocates of data localization. Their motive may be based on security concerns, but it may be business-related as well. By requiring the presence of local data centers, they seek to prevent multinational IT firms like Google, Apple, and Meta from evading local taxes on the huge advertisement profits realized within their borders. The South Korean government also notes its special security concern as a divided nation, objecting to the disclosure of domestic map data lest it be used by belligerent forces of North Korea.

Notwithstanding such security concerns and business motives, data localization measures, just like other traditional barriers to trade, impose significant costs both on the economy and on innovation. Globally, half of all services trade depends on access to cross-border data flows. According to the 2015 study by Leviathan Security Group, data localization requirements raise the cost of hosting data by 30 to 60 percent.³⁵ Data localization laws inevitably raise the costs for firms, especially SMEs, that may be seeking to enter a new market. There is a need to balance the benign intentions behind the regulations with their detrimental effects on the economy.

The location of computer servers plays a crucial role in the performance of software or applications. For video gaming, such is even more the case as cloud computing is increasingly more utilized for seamless

³⁴ “Localization of Data Privacy Regulations Creates Competitive Opportunities.” McKinsey & Company, McKinsey & Company, 18 Aug. 2022, <https://www.mckinsey.com/capabilities/risk-and-resilience/our-insights/localization-of-data-privacy-regulations-creates-competitive-opportunities>.

³⁵ Quantifying the Cost of Forced Localization. <https://static1.squarespace.com/static/556340ece4b0869396f21099/t/559dad76e4b0899d97726a8b/1436396918881/quantifying+the+cost+of+forced+localization.pdf>.

service. Cloud computing is especially important in the context of the burgeoning esports industry. Just as fans of a particular sport love to watch their favorite players play in leagues, fans of an esports love to watch professional gamers play competitively. Millions of people are fans of esports, and those devoted players and fans create an ecosystem that generates huge amounts of revenue. As a testament to its popularity, the 2022 League of Legends World Championship Finals held in San Francisco drew a record viewership of 5.1 million people across multiple streaming platforms and channels. Twitch alone drew 2.8 million viewers according to Riot Games' official accounts.³⁶

As this ecosystem is inherently competitive, the slightest lag could ruin an event because slow connection can leave a player at a competitive disadvantage. Even without the context of a competitive environment, uninterrupted connection is necessary for immersive gameplay. Companies need data centers in strategic places so that they can handle the huge amount of information coming in and out of the event zone. Mandating localization of data could get in the way of companies' plans to do so. The rapid growth of the esports industry has companies investing in network infrastructure. For example, Nexon hires Microsoft Azure to service their cloud computing needs, while Riot Games partners with AWS for esports broadcasts. Ubisoft acquired the high-performance hosting specialist i3D.net to expand low-latency access to their content.

Mandating localization might even be a minus in terms of security. As a rule of thumb it is always prudent to disperse resources in multiple places, and not put all the eggs in one basket. When localization rules are implemented, companies may have to manage data in a small number of select data centers. The 2022 October fire at a Kakao data center in Pangyo, South Korea uncovered security blind spots for the domestic tech giant. On October 15, a fire broke out at SK C&C's Pangyo data center, which had been hosting data for Kakao, Naver, and SK Telecom. For users of the mobile video game *Odin: Valhalla Rising* with accounts connected to their Kakaotalk profiles, service was unavailable due to the fire. Kakao

³⁶ Person. (2022, November 6). *Worlds 2022 smashes viewership record*. Reuters. Retrieved January 11, 2023, from <https://www.reuters.com/article/esports-lol-worlds-viewership-idUSFLMGnBXF>

Games plans to announce individual compensation details for key games they service, like Odin: Valhalla Rising and Uma Musume.

Damages were not limited to just the video games. The fire disabled a large number of Kakao's community services like KakaoTalk and the Daum portal website, as well as a handful of Naver's services. Key mobility services like TMap and Kakao Taxi were disabled. E-commerce services Kakao Gift and Kakao Shopping experienced payment errors. Kakao Webtoon and the music streaming service Melon suffered revenue losses. An estimate suggests the firm will suffer 22 billion KRW as a result of the fire. Compensation for paid services are being discussed and an incurrence of unexpected costs seem inevitable.³⁷ Comparison with global tech companies in the way Kakao handled the emergency was inevitable in the aftermath of this incident. Companies like Google and Microsoft are known to put security at the forefront in their operation of data centers, and even mandate annual employee drills in case of natural disasters. Such was the mistake made by Kakao - putting all eggs in one basket. As the video game industry grows the demand for data centers will grow as well and localization mandates may force companies to make unwise decisions.

3. Protection of Personal Information

Article 14.17 lays out what the Parties agreed upon on the issue of protection of personal information.

Recognizing the economic and social benefits of protecting personal information, the Parties have decided on a legal method of achieving that goal.³⁸ The countries are required to either maintain relevant domestic regulations or adopt a legal framework that works to protect personal information.

³⁷ Sun-hwa, L. (2022, October 18). *Kakao: Key platforms crippled by Data Center fire*. Businesskorea. Retrieved January 12, 2023, from <http://www.businesskorea.co.kr/news/articleView.html?idxno=102306>

³⁸ Article 14.17.1 reads:

"The Parties recognise the economic and social benefits of protecting the personal information of persons who conduct or engage in electronic transactions and the contribution that such protection makes to enhancing consumer confidence in the digital economy and development of trade."

South Korea has such a legal framework in place in the form of the PIPA, one of the “3 data bills” discussed in the chapter for cross-border data flow. The original act was enacted in 2011 and passed with the purpose of prescribing “how personal data is processed in order to protect the rights and interests of all citizens and further realize the dignity and value of each individual.”³⁹ Furthermore, it “aims to protect personal data from unnecessary collection, unauthorized use or disclosure, and abuse.”⁴⁰ Singapore’s equivalent would be the PDPA. The PDPA was established in 2013 and came into force the next year.

A framework that needs to be remembered is the Asia Pacific Economic Cooperation (APEC) Cross Border Privacy Rules (CBPR) System. Singapore’s PDPA recognises it as one of the modes for transfers of data overseas. The CBPR establishes a network of trusted organizations in participating APEC nations to expedite trustworthy cross-border flow of data in the digital economy. The system is based on an approved set of requirements developed under the APEC Privacy Framework. If an overseas recipient is certified by the CBPR, the organization is obligated to provide protection for the personal data transferred from Singapore comparable to the PDPA. Organizations in Singapore, on the other hand, can easily send personal data to the overseas recipient without meeting additional requirements.⁴¹ Since 2017, South Korea has joined the system as well, which means Korean companies that have obtained CBPR certification in Singapore can transfer personal information from Korea to Singapore without obtaining user consent and without obtaining CBPR certification in Korea.

Furthermore, the non-discrimination principle that is a bedrock for conventional FTAs is present in digital trade norms as well and applies to the protection of personal information. The principle is present in the KSDPA and mandates the parties to implement their personal information protection systems based on

“The Parties recognise that each Party may have its own regulatory requirements concerning the transfer of information by electronic means, provided that requirements are not arbitrary or a disguised restriction on trade and are proportionate.”

³⁹ Personal Data Protection Laws in Korea, https://www.privacy.go.kr/eng/laws_view.do?nttId=8186&imgNo=33.

⁴⁰ *Ibid.*

⁴¹ *PDPC: APEC Cross Border Privacy Rules and privacy recognition for processors systems*. Personal Data Protection Commission. (n.d.). Retrieved December 4, 2022, from <https://www.pdpc.gov.sg/help-and-resources/2021/10/apec-cross-border-privacy-rules-and-privacy-recognition-for-processors-systems>

non-discriminatory practices. To reiterate, the principle states that those participating in digital trade should be protected from privacy infringement accidents occurring in their territory without discrimination.

The principle of non-discrimination regarding personal information protection in digital trade agreements has important implications for organizations. For example, if domestic consumers of digital products and services provided by foreign companies perceive that their personal information is not sufficiently protected, they may stop consuming and move consumption in preference of competitors. Such is the way non-discrimination policies can affect market competition. Moreover, fair market competition is difficult if the protection system of the importing country discriminates against foreign companies.

The issue of protecting personal information has become increasingly important in the video game industry. Gamers have begun to see personal information as a basic human right. In video games, and especially in MMORPGs, which are highly popular in both South Korea and Singapore, a player's character is considered a digital clone of the user. When their account is hacked, the sense of loss can be significant.

Furthermore, it is not unusual for a gamer to spend an exorbitant amount of money on their character. As an example, in September 2022, 380 players of the mobile game Lineage 2M developed by the South Korean publisher NCSOFT filed a lawsuit against the company for paying Youtubers to promote their game after claiming it would refrain from such practice. According to the claim, the gamers spent up to 60 billion KRW on the game over the previous 3 years.

Video game companies are less financially incentivized to exploit users' personal information. In the comparable e-commerce industry, businesses' monetization model relies on advertisements based on personal information collected through the web. Information is collected from as many consumers as possible which is then used to direct target-specific advertisements. Customer information is at the core of their profit model.

Such is not the case for video game companies. South Korean video game developers and publishers derive most of their profit from in-game purchases, not advertisements. Take the case of Lost Ark, the MMORPG developed and published by Smilegate RPG, for example. The game features no advertisements since the entire revenue stream depends on microtransactions for in-game items. Plus, Smilegate RPG earns royalties from overseas publishers. They have no reason to go out of their ways to obtain as much personal information as possible. Firms like NCSoft are thus moving to ensure as much autonomy for users over their personal information as demanded.

There is already a movement among the domestic video game companies to invest in protecting personal information for the long term. NCSoft established the Department for the Protection of Personal Data in 2020 and is making education on the subject mandatory for all employees. In June of 2022, the company signed an MOU with Korea University School of Cybersecurity to train students into becoming professionals in the area.⁴² Investing in protection of personal information may not lead to immediate profit for the companies, but they still have incentive to nurture the field if business and reputation are to be sustainable.

4. Online Consumer Protection

Traditional FTAs often include comprehensive chapters on consumer protection. As digital trade continues to grow, it is only natural to establish ways of protecting the online consumers as well. The KSDPA acknowledges that such regulations are needed to ensure electronic commerce develops without fear of fraud or deceit.⁴³

⁴² 선한결. “엔씨소프트, 고려대와 개인정보보호 인력 양성 맞손.” 한경닷컴, 17 June 2022, <https://www.hankyung.com/it/article/202206177818i>.

⁴³ Article 14.21.1 reads:

“The Parties recognise the importance of adopting and maintaining transparent and effective measures to protect consumers from fraudulent and deceptive commercial activities, unfair contract terms and unconscionable conduct when they engage in electronic commerce.”

Despite the largely aspirational nature of Article 14.21 on online consumer protection, the third paragraph of the article mandates that each Party have a legal framework to forbid fraudulent conduct. It reads “Each Party shall adopt or maintain laws or regulations to proscribe fraudulent, misleading or deceptive conduct that causes harm, or is likely to cause harm, to consumers engaged in online commercial activities.”⁴⁴ The second paragraph of the article goes on to describe what kind of behavior constitutes fraudulent or misleading conduct”. For example, “making misrepresentations or false claims as to material qualities, price, suitability for purpose, quantity or origin of goods or services” qualifies as such.⁴⁵

Video game firms over the years have faced accusations of excessively monetizing players, creating addictive gameplay loops, and conducting highly targeted data collection. Developers then use these data to set up paywall content that would have been on disk without charge, or even match up free players against players who have spent money on performance-enhancing in-game items. Such practices can be excused if they are used for better game production, legitimate price discrimination, or user compensations for those who have invested in game ecosystems.

4.1 Nexon’s Alleged Probability Manipulation

The freemium distribution model that many developers and publishers adopt nowadays come hand in hand with the microtransaction system which allows companies to sustain the economic viability of the free-to-play model, allow players to express themselves creatively through purchase of skins and cosmetic items, and deliver additional content to players in innovative ways. However, although the model developed as a mutually convenient monetization system for companies and players, certain

⁴⁴ KSDPA Article 14.21.3.

⁴⁵ *ibid.*

implementations of in-game purchasing methods have become increasingly controversial and therefore watched by regulators worldwide.

Specifically, the loot box, a virtual container of randomized in-game items, has come under intense scrutiny as a mechanism that could potentially cause harm to children or those with gambling addiction issues. Accordingly, governments around the world have taken to implementing regulations governing the sale of loot boxes. The game industry itself has also taken meaningful steps to self-regulate the loot box system and demonstrate to governments that it is acting responsibly and show that further firm hand of the law is unnecessary. For example, in an effort to self-regulate their systems, in 2018 both the Pan European Game Information (PEGI) and the Entertainment Software Rating Board (ESRB) added descriptor icons depicting in-game purchases and loot box content.

In 2021, Korea's video game firm Nexon Korea was investigated by the Korea Fair Trade Commission(KFTC) over its controversial alleged manipulation of "probability-type" items. In its flagship video game MapleStory, the so-called "additional options" affect a game character's ability or an item's performance. Preferred options vary depending on the user, so they want to come by the options they want by continuously drawing straws. Of course, each draw requires payment. Although suspicion had been raised by video game YouTubers that Nexon had been manipulating the probability of each additional option to make each draw less successful, the firm had held its stance that equal probability was being applied. Then, Nexon released details of a balance patch on February 18, notifying "We have corrected an error so that gamers can obtain additional options given to an item with the same probability".⁴⁶ For the users, the notice was as good as an admittance of manipulation.

Consumers were understandably furious. Feeling like they had been duped, users demanded reparations from Nexon. The firm only worsened the situation by releasing a series of apologies that seemed

⁴⁶ Moon-hee, C. (2021, February 23). Nexon's probability manipulation upsets users. Businesskorea. Retrieved January 12, 2023, from <http://www.businesskorea.co.kr/news/articleView.html?idxno=60927>

inadequate in the users' eyes. Even the compensations that the firm soon proposed were received as being lacking compared to the damages already caused. Coupled with criticism directed towards another one of Nexon's games, Mabinogi, negative sentiment of the firm reached its climax and users took online action by boycotting the games as well as offline action by protesting aboard trucks in front of its main offices in Pangyo near Seoul.

Several changes were brought about in the South Korean video game industry in the aftermath of this probability incident. As a direct result of the loss of faith in MapleStory and its developer Nexon, users of the game emigrated en masse to other MMORPGs, namely Lost Ark developed by Smilegate. Smilegate was the beneficiary of similar happenings, as users of other MMORPGs like NCSOFT's Lineage joined the exodus as well.

Most importantly, the movement to legislate regulations on the probability model was accelerated. The South Korean government has moved to address the long-standing complaint that video game firms are forcing excessive monetization of in-game items. It had been up to the voluntary will of video game companies to disclose information on their probability items, but now the government started taking the matter into its own hands. At a plenary session of the Culture, Sports, and Tourism Committee held at the National Assembly on April 19, "a partial revision of the Game Industry Promotion Act" was proposed. The proposed amendments called for mandatory disclosing of probability-type items information and banning the "complete gacha"⁴⁷ system. It also called for a fine to be imposed in case of violation of obligation to publish information regarding probability-type items.

The controversial probability model issue even appeared in the 20th presidential election. In his run for the presidency, the incumbent Yoon Suk-yeol pledged to legislate regulations requiring more

⁴⁷ The term refers to a monetization model in which users are enticed to buy items through the probability model, which is then used again to buy probability-type items. The system was outlawed in Japan for being problematically addictive.

transparency for the probability model in the video game industry. Such presidential backing can only provide momentum to the push for reformation.

Another change that came about as an indirect result of the MapleStory incident was a change in the popular form of in-game monetization in the industry. The much-discussed probability model, also called the loot box model or the gacha model, had been the backbone of South Korea's biggest game companies. The model is most often implemented in role-playing games(RPGs), and they account for 70% of the revenue for Nexon and NCSoft.⁴⁸

When players' discontent with the probability model was reaching a new height, the video game Dota 2 introduced a new monetization system in 2013 in the form of the "battle pass". A "battle pass" provides additional content and items, usually through a tiered system, rewarding the player with in-game items for progressing through the game and completing specific challenges. The system began to gain traction beginning in the late 2010s as an alternative to the loot box model. Battle passes are usually divided into two categories: free passes are available to all users, while premium passes require annual or seasonal charges to obtain enhanced items and cosmetics. The model was perfect for users who had been looking for ways to obtain the items they want without probability coming into play.

The popularity of the battle pass began to catch up with South Korean video games. In 2018, PUBG Mobile, the mobile version of PUBG: Battlegrounds developed by PUBG Studios, a subsidiary of Krafton, introduced the "Royale Pass", its own version of the "battle pass". Other notable games that followed suit include Sudden Attack, Dungeon & Fighter, KartRider Rush+, A3: Still Alive, Guardian Tales, Cookie Run: Ovenbreak, and Cookie Run: Kingdom. While the system may have its weaknesses, consumer fatigue over loot box controversies is likely to keep the battle pass system popular.

⁴⁸ 조선비즈. (n.d.). *자율에 맡겼던 '확률형 아이템' 정보 공개 법으로 강제한다*. 조선비즈. Retrieved December 5, 2022, from <https://biz.chosun.com/it-science/ict/2022/10/06/WCOHX46HZFDOJOQ4D4RXOD2Q6I/>

The trend for the loot box system is changing worldwide. In North America, the Entertainment Software Association(ESA) announced many of their largest members will voluntarily disclose, or allow games to be published on their platforms if games disclose the odds for a player winning in-game items by paying for loot boxes. Google and Apple have taken similar stances for their app stores. In the US, a bill was placed before the Senate on May 23, 2019 that would prohibit sales of loot boxes to children.

In Europe, Belgium and the Netherlands have already found some forms of the loot box system as in violation of existing gambling laws, whereas in the UK, the Digital, Culture, Media and Sport Committee and the Gambling Commission have expressed concern about the issues raised by loot boxes.

In short, it is clear that the landscape for loot boxes is dramatically changing, and what is acceptable in certain jurisdictions today may be unacceptable in the near future as the rate of change is very swift, either through state imposed regulation, or industry standards of acceptable behavior. Businesses should therefore keep abreast of both the current position in the jurisdictions where their games are available and future trends as the public eye is firmly on loot boxes.

4.2 The Game Rating and Administration Committee Controversy

Apps and games that are marketed to children, who are considered to be particularly vulnerable consumers, have come under increasingly intense scrutiny. Reflecting such enhanced caution is the way app store operators have been responding to consumer complaints. Google Play now requires developers to clearly identify whether children are part of the target audience. Similarly, the Apple App Store now bans third-party ads or data analytics software in apps that target children.

Various other methods have also been implemented to protect young consumers from unwanted game content. One of those methods is to apply appropriate ratings to video games. In South Korea, the Game Rating and Administration Committee(GRAC) is the governmental organization responsible for rating

video games to inform customers of the nature of game contents. By law, games sold in the country must be rated by GRAC prior to sale.

Recently, the organization has come under fire for contributing to the problem of excessive Internet censorship in the country. A recent controversy over GRAC's remarks directed at games published on the Korean server of the Steam gaming platform only added fuel to players' frustration with the GRAC.

Censorship in the Korean game industry had begun to intensify rapidly when certain forces filed collective complaints with the GRAC demanding stronger censorship, and subsequently used such action for power struggles. The incident broke surface when the organization's rating for the popular mobile video game Blue Archive was announced.

The incident was also dealt with at the national audit of the National Assembly's Culture, Sports and Tourism Committee and further accelerated the controversy. A day before the parliamentary audit in 2022, someone believed to be an employee at the GRAC posted a message on the employment-focused social media Blind. The comment caused a stir as it referred to players as "Pots (assumed to be a derogatory terms for users) lol", ridiculing gamers.

The remarks made at the organization's press conference on the morning of November 10th, 2022 also drew anger from users. A person from GRAC who attended the meeting said, "Steam has many porn-level games. When we ask the game companies to stop Korean services, most of them listen," he said. "Gamers will criticize us, but we couldn't wait to see such games enter Korea."

For businesses, being prevented from publishing games on Google Play or the Apple App Store would mean a huge loss of market access, and for many would even mean termination of service. Developers and publishers therefore have to ensure their games conform to the child-protection requirements.

4.3 KFTC's Decision

Under the Act on the Consumer Protection in Electronic Commerce in South Korea, video game firms are sanctioned if they falsely or deceptively induce consumers into paying for probability-type items. In 2018, even before the MapleStory incident, the KFTC had imposed a 25 million KRW administrative fine and 984 million KRW penalty surcharges against Korean publishers Nexon, Netmarble, and Netfloor for selling loot box items through false, exaggerated, and deceptive means. The basis behind the decision was the finding that the firms had been selling such items by providing false information regarding the chances and periods of obtaining certain items.

The global debate over whether loot boxes should be considered as gambling and become a subject of heavy regulation is fierce. Regardless of the verdict, it is clear that consumer dissatisfaction with the model is high, which is why game developers nowadays try to avoid any kind of monetization that could come across as predatory. The significance of the KFTC's decision is that the commission's action gives a clear signal that the game developers have the responsibility not to mislead consumers with false or exaggerated labels and advertisement items, especially when selling loot box items. As the KSDPA prohibits fraudulent commercial practices in digital trade between the Parties and future digital trade agreements are likely to do so, domestic video game publishers will have to keep applying precautions.

4.4 WeMade and Cryptocurrency

The market for cryptocurrency in the gaming industry is growing at a rapid rate. Cryptocurrency games are video games that use cryptocurrency as the foundation of their in-game economies. Such games use blockchain technology to support digital tokens traded in and outside the game by its players. Since blockchain technology allows for a decentralized store of information, the tokens used in cryptocurrency games can be less vulnerable to the risks involved with other in-game currencies, such as in the case of a

closure of a game developer. Axie Infinity, Decentraland, Enjin Coin, and Forest Knight are prominent examples of cryptocurrency games.

Also called play-to-earn(P2E) games because players can trade currencies earned in the game for real money value, Mir4 is an example of such a type of game that has attracted recent global attention.

Developed and published by the South Korean company WeMade, and released on PC and mobile, the game garnered significant attention at the 2022 Game Developers Conference(GDC) held in San Francisco's Moscone Center. WeMade is participating in the 2023 GDC as a Diamond Partner along with tech giants Meta, AWS, and Microsoft and has been assigned space of up to 60 booths for the event.

By nature, legislation usually occurs after the need for particular regulations are recognized. Billions of dollars are spent on virtual goods and currencies within games, yet there is uncertainty as to the legal status of these goods. The legal status of virtual goods and currency is yet to be paved, but it is clear the issue is one that extends beyond games for legal systems in the digital age. In November of 2019 the UK Jurisdiction Taskforce, set up to help develop and transform the UK legal sector through technology, looked at the legal status of cryptoassets and smart contracts under English law. The Taskforce granted that cryptoassets are capable of being property under English law. Consumers, however, will often lack awareness of the legal status of such virtual goods and currency.

Although such case laws endorse cryptocurrency as property, still there is an absence of further guidance on the status of virtual goods and currency. The best preparation for businesses to take in anticipation of a disgruntled player expressing complaints over the legal status of their purchases of virtual assets is to state very clearly early in the terms of service that their purchase of virtual goods or currencies can be removed at the discretion of the developer or publisher. Businesses should also consider having practical measures in place that can provide discounted refunds, or the transfer of virtual goods or currencies to other games once games close down.

4.5 Other Issues

Various other issues have attracted the watching eyes of regulators. Take the issue of auto-renewals. For subscription-based games, auto-renewal of contracts is mutually convenient for gaming companies and consumers. Businesses can save cost and time by not engaging in repetitive transactions for the same service, while players enjoy continuity of service without hassle.

However, it is a practice that is kept under close watch. In 2019, the UK's Competition and Markets Authority (CMA) launched a probe into the way auto-renewal contracts for Switch, PlayStation and Xbox subscriptions were being conducted. The investigation is intended to determine if the contract terms are unfair, whether it is too difficult to cancel or obtain a refund, and if the auto-renewal process is transparent.⁴⁹

The issue of refunds is also a hot potato. In 2019, France's Directorate-General for Competition, Consumer Affairs and Fraud Prevention(DGCCRF) fined video game publishers Valve and Ubisoft over their refund policies. Valve had a 14-day refund policy, but it applied only to games that had been played for less than two hours. Ubisoft had no refund policy at all for its Ubisoft store. Both companies were found by DGCCRF to be at odds with French law which mandates that consumers have 14 days to demand a refund for digital services.

In Australia, the Australia Competition and Consumer Commission(ACCC) found Sony Europe at fault for allegedly refusing to provide refunds for faulty games that had been downloaded. The company's customer service representatives told complaining customers over the phone that Sony Europe was not required to refund the game once it had been downloaded, or if 14 days had passed since it was purchased. The ACCC also stated refunds under the consumer guarantees must be given in cash or money

⁴⁹ Guardian News and Media. (2019, April 5). Sony, Nintendo and Microsoft investigated over online games. The Guardian. Retrieved January 22, 2023, from <https://www.theguardian.com/business/2019/apr/05/watchdog-investigates-nintendo-switch-playstation-xbox-auto-renewal-terms>

transfer if the consumer originally paid in one of those two ways, unless they choose to receive in the form of store credit.⁵⁰

What does this imply for businesses? It is important that gamers are provided with clear and plain information about the contract at the time of purchase of the gaming services to avoid the risk that an auto-renewal term or refund policy is deemed unfair under the target country's consumer protection regulations. Keeping abreast of regulatory trends both at home and abroad may be wise since regulators tend to monitor developments elsewhere and may adopt a similar line to their overseas contemporaries. Refund policies should be clear and not only conform to the black letter of the law, but also give players choices on how to receive the refund which will work to keep them in the ecosystem.

5. Cybersecurity

As a result of the impact of digitalization on financial services, healthcare, and SMEs, there has been an increase in cyberattacks. The video game industry is not immune to this trend. In its infancy, cybersecurity was never a concern when playing video games. A player would take the cartridge - and then later, the CD-ROM - and put it in the console. Although meant to be fun, it has become impossible to neglect cybersecurity, especially when safe gaming is unthinkable without a secure online environment. Not only should the environment be free from technical inconsistencies like lags in Internet connection, but it should also be free from outside attacks like hostile hacking attempts. Unfortunate but inevitable, coupled with the growth in size of the video game industry is the growth in size of attempted hacking. In the third quarter of 2022, global cyberattacks increased by 28% compared to the same period in 2021.⁵¹

⁵⁰ Australian Competition and Consumer Commission. (2022, December 25). Sony to pay \$3.5 million penalty for misrepresenting PlayStation Gamers' rights. Australian Competition and Consumer Commission. Retrieved January 22, 2023, from <https://www.accc.gov.au/media-release/sony-to-pay-35-million-penalty-for-misrepresenting-playstation-gamers-rights>

⁵¹ Etal. "Check Point Research: Third Quarter of 2022 Reveals Increase in Cyberattacks and Unexpected Developments in Global Trends." Check Point Software, 26 Oct. 2022, <https://blog.checkpoint.com/2022/10/26/third-quarter-of-2022-reveals-increase-in-cyberattacks/>.

Types of targets sought after by cybercriminals range from in-game items to financial information and personal information, and in-game items. Such rate of growth is alarming considering that significant financial transactions are involved in today's video games.

Hacking is becoming a serious source of concern in the domestic video game industry as well. South Korean video game publishers like Nexon and Smilegate have suffered from such attacks. On September 25 2022, Smilegate announced that random user accounts for the mobile game Wildborn on its video game distribution service Stove were hacked. Users of the MMORPG Lost Ark were affected as well, with the game being distributed on the same platform. In-game goods and items worth millions in KRW were lost. Security measures were ineffective even with two-factor authentication methods like the OTP in place. Hackers made use of the fact that log-ins on mobile devices did not require OTP authentication. In response, Smilegate Stove strengthened its security system via updates and blocked OTP bypassing, while preparing reparations for owners of accounts that were harmed.⁵² Apparently, businesses need to educate themselves on the hazards of cybercrime and how to protect themselves from it.

Businesses and governments need to work together to enhance cybersecurity education and research for the general population, while cooperating on the development of effective trade regulations. It is vitally important that cybersecurity measures become complex enough to deal with attacks that evolve in its boldness and elaborateness. Despite the level of sophistication needed for effective protection, the articles on online security in the KSDPA are aspirational at best. Article 14.22 reads that the “Parties have a shared vision to promote secure digital trade to achieve global prosperity and recognise that cybersecurity underpins the digital economy.”⁵³ One can only hope that these provisions will become more detailed in the future.

⁵² ' 로스트아크 ' 해킹 속출...보안 약한 모바일 로그인 노려. 로스트아크 해킹 속출보안 약한 모바일 로그인 노려 | 한국경제 TV. (2022, September 28). Retrieved January 15, 2023, from <https://m.wowtv.co.kr/NewsCenter/News/Read?articleId=AKR20220928054000017>

⁵³ KSDPA Article 14.22.1.

VI. Conclusion

The KSDPA has become a new frontier for digital trade in South Korea, but that is not to say that it is not without limitations. For one, it is lacking a definitive dispute settlement system. Text-wise, discussion regarding dispute settlement stalls at an aspirational level. For instance, the sixth paragraph of Article 14.21 states that “(the) Parties recognise the benefits of mechanisms, including alternative dispute resolution, to facilitate the resolution of claims over electronic commerce transactions”.⁵⁴ Conventional FTAs, often signed between WTO member states, usually allow Parties to take matters to a forum of their choice, most often the multilateral dispute resolution system presided over by the WTO DSB. The system was what had made the WTO-led order so effective over the years, as it encouraged countries to resolve disputes early at the consultations stage, and, if the disputes progressed through to legal decisions, provided incentive against straying from such decisions. For digital trade, however, there is no such system to have recourse to. The KSDPA simply states that it recognises the benefits of mechanisms to facilitate the resolutions of claims. Furthermore, there has not yet been an international trade dispute over digital trade, so it remains to be seen which forum such dispute might take place in.

As is with the existing conventional international trade system, points of ambiguity that can be fundamentally difficult to resolve in reality exist with digital trade agreements. Uncertainty with basic concepts, the exact scope of application, and difficulty of ascertaining the responsible party may be examples of some. However, it can be unwise to blindly chase after specificity in the texts of these agreements, as the more specific the text becomes, the more likely that it would not sufficiently capture potential future issues in digital trade. Digitalization of the international economy has accelerated in recent years and is still in full swing, and such transition will continue to be reflected in digital trade

⁵⁴ KSDPA Article 14.21.6.

negotiations. Nevertheless, efforts to identify and prepare for issues that may arise in terms of norms should continue.⁵⁵

It is up to both businesses and governments to be vigilant amid the ever transformative digital trade environment. As companies are rule-followers rather than rule-makers, they should take precautions to avoid potential points of dispute when they develop and execute business plans.

Governments have the responsibility to expedite efforts to tidy up the frameworks on digital trade regulations. Regulations that are ambiguous or confusing can entangle efforts by well-meaning businesses in its mess of counterproductive rules. At the same time, exploitative businesses can use the lack of clear directions to expand their spheres of influence in overseas territories using ways that other businesses might not have the resources to access.

⁵⁵ 김민정, “디지털통상 규범 발전과 통상법 쟁점 연구”, 「통상법무정책 제 1 호」, 2021

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국문초록

디지털 통상 협정과 국내 게임 산업

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코로나 19 는 사업의 디지털화를 가속화했다. 특히 게임 산업과 같은 디지털 산업이 크게 활성화 되었다. 한국 게임 산업은 2020 년 세계 시장 점유율 4 위를 기록하며 성장세를 이어가고 있다. 동시에 통상 부문에서는 디지털 무역 협정이 새로운 화두로 떠오르고 있다. 여기에는 디지털 경제 협정, 그리고 지역 무역 협정의 디지털 무역에 대한 별도의 장이 포함된다. 한국은 최근 최초의 디지털 무역 협정인 한국-싱가포르 디지털 동반자 협정에 서명했다. 이 협정은 향후 디지털 무역 협정의 대표적인 것으로, 몇몇 조항은 한국 비디오 게임 산업이 무시할 수 없는 시사점을 가지고 있다.

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