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Growth of Global Over-the-Top and Korean Media Market: Competition and Regulatory Policy Issues

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**Growth of Global Over-the-Top and Korean Media Market:
Competition and Regulatory Policy Issues**

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ABSTRACT

Global markets for OTT (Over-the-Top) services are growing. Focusing on OTT services in Korean media markets, this study explores technological, industrial, and policy factors in OTT markets. Specifically, platform competition and regulatory classification for market entry regulation, global OTT players' negative impacts on national economy, reverse discrimination against domestic players and user protection issues are discussed. Based upon the discussion on competition and policy issues for OTT players, this study suggests future policy directions for Korean media markets.

Keywords: Global Over-the-Top; Regulatory Policy; Korea; Platform Competition

Continuous innovations in the media and telecommunication industry marked by technological convergence enable consumers to access video content through various broadband networks. With the diffusion of new technologies, online video reaches consumers via multiple devices, including computers, smartphones, tablets, gaming consoles, television sets, and other equipment connected to the Internet (Federal Communication Commission, 2012). As evidence of this trend, Internet-based video services like over-the-top (OTT), the most recent and potentially disruptive development in the media industry, have shown a rapid growth in many countries.

In spite of growth of OTT service, it seems that there is no single, generally agreed definition of OTT services. In general, OTT service is understood as “content, a service or an application that is provided to the end user over the open Internet” (Body of European Regulators for Electronic Commerce, 2015). In a broad sense, OTT services include the provision of content and applications such as voice services provided over the Internet, web-based content, search engines, hosting services, email services, instant messaging, and video and multimedia content (BEREC, 2015).

OTT service providers such as Skype and Netflix compete with traditional telecommunications and broadcasting services. Therefore, an OTT player is considered as any Content and Applications Provider (CAP) providing online services that can be regarded as potentially substituting for traditional telecommunications and broadcasting services such as voice telephony and television (European Union, 2015).

In broadcasting markets, IPTV and OTT service providers offer similar Internet-based video services. However, in most cases unlike IPTV providers, OTT video providers do not provide the first and last mile broadband connections to physically

transmit video to consumers (Frieden, 2014). IPTV is generally offered by telecommunication operators like AT&T U-Verse in the US over managed network with guaranteed quality of service, while OTT services are provided by content owners such as BBC in the UK, or dedicated start-up players such as Netflix in the US without the Internet service provider (ISP) or network operator being involved either in the control of the content or its access by viewers (OECD, 2013a).

Currently traditional regulatory frameworks are not imposed on global OTT service providers such as Netflix and Hulu in many countries. For instance, network operators must get licenses from the government for telecommunication and broadcasting services. However, for OTT players licensing is often exempted. In the United States, the Federal Communications Commission (FCC) released a Notice of Proposed Rulemaking (NPRM) proposing to give OTT video programming providers certain legacy negotiating and carriage rights with respect to both cable programming and broadcast television programming (FCC, 2014). Like other countries, Korean OTT markets are growing and diverse regulatory policy issues were addressed for OTT service providers including global OTT providers.

To better understand the OTT services in Korean media markets, this study employs an analytical framework, which reviews the roles of a diverse set of factors such as technological factor, industrial factor, and policy factor in Korean OTT markets. Specifically this study focuses on competition and regulatory policy issues for global OTT players. Based upon the discussion on competition and regulatory policy issues for OTT players, this study suggests future policy directions for Korean media markets.

Growth of Global Over-the-Top in Media Industry

Growth of global over-the-top

Global markets for OTT services are growing. As of September 2015, Netflix, one of the global OTT service providers, had 43 million domestic and 26 million international streaming subscribers (Statista, 2016) (See Figure 1). Forecast estimates that the number of households subscribing to Netflix worldwide in 2020 will reach nearly 114.9 million (Statista, 2016). In the United States, in 2014, 65.6 percent of TV watchers used Netflix (Statista, 2016). In terms of the subscription revenue, forecast estimates that OTT TV and video subscription revenue will increase from 0.96 billion to 21.65 billion U.S. dollars between 2010 and 2020 (Digital TV Research, 2015).

While the diffusion of OTT service is expanding globally, there will be a major shift in the geographical split of OTT revenues. Currently the US accounts for over 75% of revenues, but that will drop to less than 60% in 2017 as Europe and Asia grow more quickly (Informa Telecoms & Media, 2012). It is also estimated that OTT will take 7 percent of total TV and video revenues by 2016 (Informa Telecoms & Media, 2012).

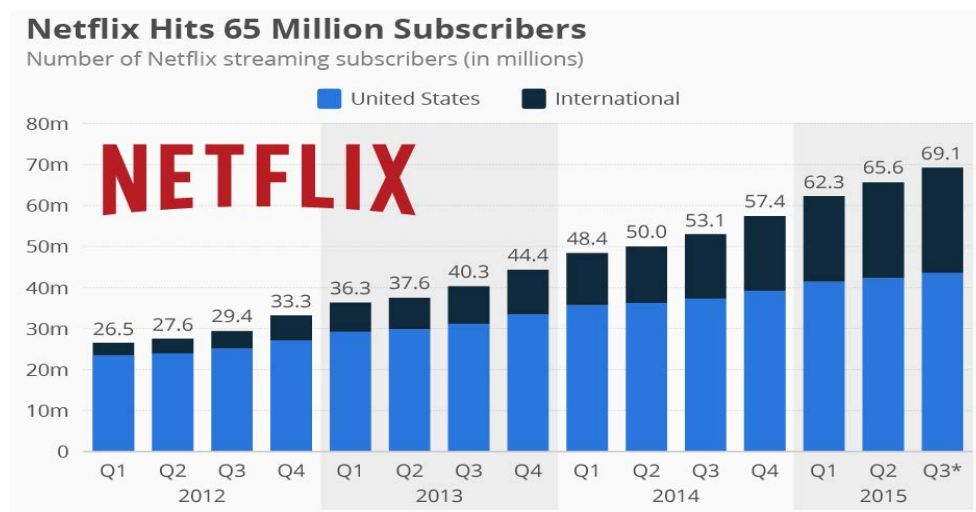


Figure 1. Growth of Netflix streaming subscribers (Source: Statista)

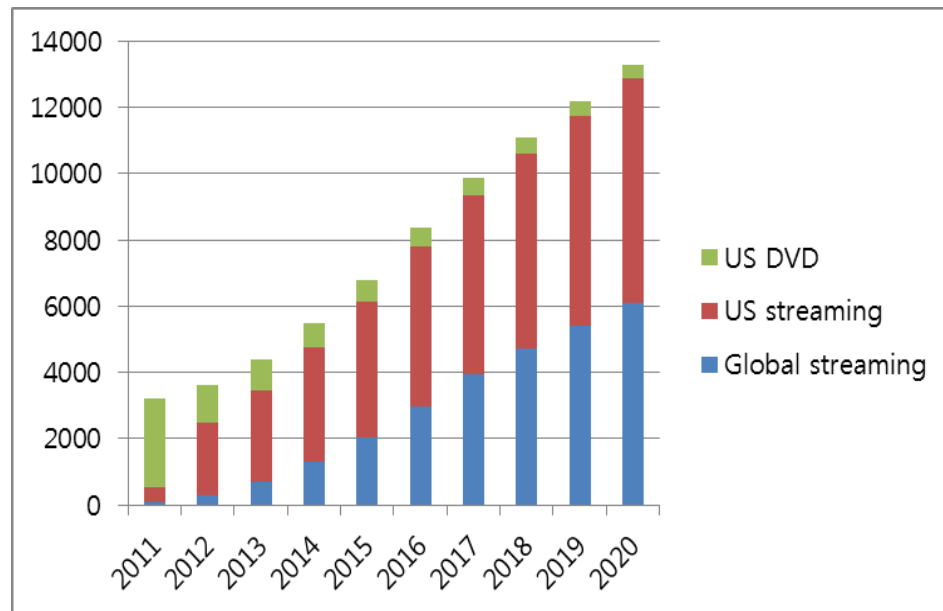


Figure 2. Growth of Netflix revenue and revenue structure (2011-2020) (Source: Trefis)

Figure 2 provides the growth of Netflix revenue and revenue structure. Figure 2 demonstrates that Netflix's revenue from global streaming services shows steady growth. The portion of global streaming services in the total Netflix revenue increased from 2.6 percent in 2010 to 29.94 percent in 2015. Forecasts predict that portion of global streaming services in the total Netflix revenue will reach 45.98 percent by 2020.

Thus, Netflix launched its service globally. Netflix's global streaming services are currently available in more than 190 countries around the world including Korea. In 2016 Netflix will invest as much as \$5 billion on programming, making it the second biggest spender on content buyer after ESPN (Yarow, 2015).

The Korean OTT market overview

Various OTT services are currently available in Korean OTT market. PandoraTV launched Internet video sharing website that hosts user-generated content (UCC) in 2004. Africa TV launched Internet individual broadcasting service in 2006. Daum launched,

one of the free OTT services, Daum TVPot service in 2007.

With the diffusion of smartphones, CJ HelloVision launched paid OTT service Tving, which provides real time broadcasting service, in 2010. In 2011, Terrestrial broadcasters such as MBC and SBS launched Pooq, a terrestrial broadcasting N screen service platform. Also, IPTV service providers such as KT and LG U+ offer paid OTT services from 2011.

It is estimated that total revenue Korean OTT and Internet video is 223.9 million U.S. dollars in 2014 (KISDI, 2015a). In Korea, Nearly 10 percent of OTT service users subscribed paid OTT service by 2014 (KISDI, 2015a). Table 1 provides main Korean OTT services and business model.

Table 1. Major Korean OTT services and business model (Source: KISDI)

OTT Service Provider	Service	Launching Date	Business Model	Contents
MBC/SBS	Pooq	Oct. 2011	Paid	43 Channels (Real time broadcasting)/VOD
CJ HelloVision	Tving	Nov. 2010	Paid	200 Channels (Real time broadcasting)/VOD
Hyundai HCN	Everyon TV	May 2012	Free/Advertising	250 Channels (Real time broadcasting)
KT	Olleh TV Now	July 2011	Paid	58 Channels (Real time broadcasting)/VOD
SKT/SKB	Oksusu	Jan. 2016	Paid	98 Channels (Real time broadcasting)/VOD
LGU+	U+ HDTV	Oct. 2011	Paid	70 Channels (Real time broadcasting)/VOD
DAUM	Daum TVPot	Jan. 2007	Free/Advertising	90 Channels (Real time broadcasting)/VOD

Netflix launched its first Asian service in Japan in September 2015 and launched its OTT service in Korea in January 2016. Also, recently Chinese Weilai TV launched its OTT service in Korea from May 2016. Weilai OTT service provides more than 20 major Chinese real time broadcasting channels (Edaily, 2016). It is expected that Netflix and

Weilai TV OTT service launching in Korea will promote competitiveness and deployment of OTT service in Korean OTT markets.

Analysis

Technological factor

Network technologies

Well established high-speed broadband infrastructure is essential condition for the growth of the OTT service (OECD, 2013a). International Telecommunication Union (ITU) defines broadband as a network offering a combined speed of equal to, or greater than, 256 kilobits per second in one or both directions (ITU, 2005). There are two forms of broadband infrastructure: fixed and mobile. Fixed broadband network usually has transmission capacity with sufficient bandwidth enough to deliver voice, data, and video at the same time over the fixed line like DSL or cable modem (ITU, 2003). Mobile broadband network provides the system being able to transmit data at least at 256 kbit/s rate for all radio environments (ITU, 2003).

For the fixed broadband network, Korea has recorded fifth highest in OECD countries in 2015, with 39.56 subscribers per 100 inhabitants (OECD, 2015). Regarding fixed broadband technologies, Korea has the highest share of fiber at 71% in 2014 (OECD, 2014). Fiber to the home (FTTH) technology enables to provide vastly higher bandwidth to consumers and businesses, rather than telephone wires and coaxial cable. It can provide two-way transmission speeds of up to 100 megabits per second (OECD 2013b). Korea has kept leading in mobile broadband penetration (OECD, 2015b). In 2015, the penetration rate of mobile broadband was 107.8% already (OECD average,

90.3%), and the diffusion rate of long-term evolution (LTE, 4G) was 97% as of 3Q 2015 with the world's best performance in transmitting data at overall, all offering download speeds over 25 Mbps (OpenSignal, 2015)

The network gives access to the Internet. Over the Internet, all kinds of links such as communications, services, applications, and contents are provided. In a sense, OECD (2015) considers “all of the Internet is an OTT offering.” As the capacity of broadband network becomes larger, the network enables to deliver enhanced services or contents with high-volume capacity (Lee et al., 2011). The OTT services arise as the fixed broadband network has been diffused widely. People can get an access to Internet at home, at workplaces, and in public and use communication services online including telephony and video, called OTT services (OECD, 2015a). FCC (2013) defines an online video distributor (OVD), another name of an OTT provider, as “any entity that offers video content by means of the Internet or other Internet Protocol (IP)–based transmission path provided by a person or entity other than the OVD.”

Innovative and various service or contents can be provided where the broadband network is constructed thoroughly. Especially innovation of services or contents has been accomplished over the mobile broadband network, by being the fixed broadband networks as backhaul (OECD, 2015a). Innovation has come as all mobile communication technologies, from network, platform, device, to content, have been developed to the point that people can use mobile devices anytime anywhere.

Over the first and second generation mobile broadband network, the OTT services began as form of IP-based voice telephony, called voice over IP (hereafter, VoIP) (OECD, 2016). As the mobile broadband network has evolved into the third and fourth generation,

the capacity of the network exponentially increased enough to deliver OTT video applications that require for larger bandwidth (ITU, 2001). Korea was the first country to demonstrate commercial 3G network in the world in 2002 (OECD, 2007), and a leader in diffusing 4G generation mobile network (OpenSignal, 2015). Korean people can enjoy real time TV or streaming video seamlessly on their mobile device with no limitation of time and space (KISDI, 2015b; KISDI, 2016; OECD, 2016). In the near future high-resolution contents such as UHD or 3D could be transmitted successfully on the mobile system (OECD, 2015a).

Multiple Viewing Devices

Where people connect the Internet, they are able to use OTT services on Internet-connected devices such as computers, gaming consoles, smartphones, tablet PC, smart TVs, and so on (FCC, 2012). Traditionally people watched TV on a single TV screen mostly in the living room. However, with the introduction of OTT services, people can watch video everywhere on their own screen.

As the number of media device increases and more TV services are available online, people now can watch TV without subscribing pay TV services and use video anytime they want, not on a real-time basis (FCC, 2016). Furthermore, smartphone brought innovation in the communication market. Smartphone provides advanced computing ability, offering an access to the Internet, and diverse online applications which support creativity and customization. It changes how people communicate, socialize, and entertain in a revolutionary way (Lee & Lee, 2014).

Since smartphone was introduced in Korea in 2009, Korea has been a leader in world smartphone market. Pew Research Center released smartphone penetration data in

2015, and Korea ranks the first out of 40 developing countries in the world with the rate of penetration, 88%. Especially, Korea is the only country in the world having 100% of penetration rate in the age group between 18 and 34. After the introduction of smartphone, people can enjoy video freely on their move on their mobile device in Korea.

With the emergence of smartphone, N-screen platform contributes to a change in a way people watch video. In the N-Screen service environment, people can have unified entertainment experience across several devices, by watching the same content on multiple devices at the same time, or from one medium to another seamlessly (KISDI, 2011). N-Screen service emerged as AT&T firstly introduced three-screen service by launching “AT&T Video Share.” AT&T’s video share service provided subscribers with integrated video contents on three screens, i.e., TV, PC, and wireless phone (AT&T, 2007). The service permitted subscribers to watch video wireless phone outside, and to watch the same video content on TV set or PC screen at home by easily switching from one device to another. In Korea, CJ HelloVision firstly provided N-Screen service in 2010 (CJHV, 2014). Since then, N-Screen services, with the synergy of smartphone, help form an OTT favor environment by providing multi-screen based convenience with users.

In sum, Korea has formed solid technological environment for OTT growth in that the country has 1) well-established broadband infrastructure to deliver OTT services, 2) near ubiquitous smartphone coverage, and 3) N-screen services.

Industrial factor

OTT Platform Competition: From Online to Mobile

In Korea, OTT services were emerged by specific internet video service providers in the early 2000. Pandora TV firstly launched its video on demand (VoD) service online

in 2004 for free. Pandora constructed its own contents delivery network (CDN) to improve data transmission performance, and it adopted the revenue share model between an OTT platform and content providers in 2007. In 2005, YouTube opened its channel for users to upload various video contents, both VoD and real-time, for free. Since then, YouTube has been the most frequently using OTT platform in Korea, with the market share of 40.3% in May, 2015 (DMC Media, 2015). In 2006, Gom TV started to provide VoD and real-time video services. GomTV provides certain contents for free, or others being charged between 0.4 and 3 USD per content (Kocaa, 2015). As for Afreeca TV, it provided real-time video as form of one-man (called Broadcast Jockey) video show in 2006 for free. Afreeca TV is well known to its unique business model. Afreeca TV is basically supported by advertisers. Plus, Afreeca TV has collected money from users. That is, users used to give virtual coins to Broadcast Jockey, called Byulpoongsun, on watching one-man video show. Broadcast Jockeys can earn revenue up to around 8,000 USD per month (Tstory, 2016). Afreeca TV's one-man video show is very similar format to later that of YouTube creator's content.

Furthermore, portal and SNS providers entered to the OTT market. Daum portal launched Daum TV Pot service in 2007 mostly offering user generated contents, short clips, and one-man video show. In 2014, Daum made a contract with broadcasting companies to transmit well-made broadcasting contents as the form of a 15-minute-shortclip. After Daum merged with Kakao, an SNS provider, in 2014, it launched Kakao TV targeting at mobile users (Korea Joonang Daily, 2016a). In addition, Naver, Korea's representative portal provider, launched Naver TV Cast in 2012. Naver has offensively made contracts with content providers, and uploads extensive genres of contents

including soap opera, webtoon, web drama, music, movies, game, etc. Recently Naver invests specially in buying all sport contents and distributing via its platform (Naver, 2015). Facebook transmits streaming video to its users as well. Facebook activates the 'autoplay' function that video contents keep playing without sound all the time on Facebook pages, which contributes to increases in the number of users' views (Techcrunch, 2013). Later, Facebook sets the algorithm that contents uploaded on Facebook can be shown much more frequently in users' newsfeed compared to contents uploaded on YouTube, and consequently Facebook users can enjoy uploading contents and sharing them to others (Facebook, 2016; Time, 2015). According to Comscore (2015), the number of uploading contents on Facebook has surpassed that of YouTube in 2015 although the most frequent use of OTT service is YouTube. Facebook users are linked to each other based on relationship among families and friends, and the very characteristic of Facebook would enable advertisers to find relevant target effectively (Facebook, 2016). Thus Facebook gradually emerges as a powerful advertising medium followed by YouTube.

All these OTT services are available via various devices such as PC, smartphone, tablet PC, and TV set on an N-screen basis, people have been accustomed to use video anywhere anytime they want. That is, people's viewing behavior has started to change with the emergence of OTT services : from viewing linear (live) TV on single TV set mostly in the living room to using non-linear video contents (VoD) on multiple device at their own places anytime they want.

The rapid growth of OTT services has attracted advertisers' attention. Unlike traditional media audiences' passiveness, OTT service users visit OTT websites by

themselves and enjoy services actively for their own needs (Cha, 2013). OTT platforms provides cost-effective ways of reaching advertising audiences and opportunities of targeting more relevant users with advertisers, compared to traditional media (Sharma et al, 2013). Due to these advantages, advertisers have kept increasing in their online advertising budget, which consequently results in cannibalization of advertising revenue of traditional media (Lee & Leung, 2008; Sharma et al, 2013).

Cheil Worldwide, the representative marketing company of Korea, revealed that online advertising revenue increased from 1.96 billion USD in 2012 to 2.85 billion USD in 2016, with an annual growth rate of 10%. Traditional advertising revenue increased from 3.72 billion USD in 2012 to 3.91 billion USD in 2016, with only with an annual growth rate of 1 % for four years. Online advertising threatens traditional one by taking its revenue proportion up to around 30%, while that of traditional advertising revenue stayed 39%. Thus a fast changing trend in the advertising market shows that online media have the greatest potential to grow and earn profits. Media firms, both traditional and new ones, have a strong incentive to enter the online video market, and compete for taking their shares for the future.

To compensate a continuous loss of advertising revenue, most of Korean traditional communication firms such as broadcast, cable, IPTV expand their business model to the OTT market. Broadcasting firms initially operated their OTT websites for audience to watch TV program both real-time or VoD in 2000. Later with the emergence of smartphone, they offered N-Screen services between TV set and PC, which contributes to a expansion of user coverage. In 2011, all of broadcasting firms (KBS, EBS, MBC, & SBS) jointly launched Pooq service to provide their contents altogether via a single

platform. Initially Pooq was provided for free, and then in 2012 the service was transformed to a paid service on a monthly basis in 2012. Pooq users pay around 8 USD to watch live broadcast TV and VoD.

A couple of cable system operators started to operate OTT platforms. In 2010, CJ HelloVision launched Tving service, with N-Screen service for the first time in Korea (CJHV, 2014). CJ E&M, a rising and powerful company in a content production field, has supported to provide various contents on Tving. CJ E&M is one of subsidiaries of CJ HelloVision's parent company, CJ. In 2015, when CJ HelloVision tried to merge with SK Broadband, which finally failed to do so, Tving was handed over CJ E&M (Korea Joongang Daily, 2015). CJ E&M now operates Tving as an independent website, or as a form of platform-in-platform (PIP). Other cable operator, HyunDae HCN, also entered the OTT market with everyonTV service in 2011. EveryonTV offers mostly real-time video for free.

IPTV providers entered the OTT video market as well. KT, the leading company in the pay TV market, launched OTM service in 2011 (Broadband TV News, 2013). OTM service can be defined as a version of mobile IPTV. SK broadband started to operate BTV mobile in 2012. SK Telecom, the leader of mobile communications service in Korea, launched hoppin service in 2011 (Korea Herald, 2011), and in 2015 newly launched Oksusu service that combines all OTT services both SK broadband and SK telecom operated (Korea Herald, 2016a). LGU+ has operated LTE Videoportal that provides all video content across the world at one place since 2014 (Business Korea, 2015a). All IPTV providers offer similar kinds of contents including real-time TV, VoD, PPV, videoclip, etc., with both subscribers and non-subscribers charging on a monthly

basis plus per content usage charge.

The difference between OTT services of IPTV providers and those of other broadcasting and cable firms is that IPTV providers pay more attention to a mobile arena. It is because IPTV service providers are originated in telcos, they would have an incentive either/both 1) to diffuse their mobile OTT services on their mobile subscriber base, or/and 2) to use OTT services to expand their installed base of mobile subscribers (KISDI, 2015b). KT makes efforts to diffuse its OTM service to its existing mobile subscribers. To do so, KT expects that it would enhance more content sales revenue and advertising revenue if the number of users of OTM reaches a certain level. SKT has made multiple exclusive contracts with popular content providers for the purpose of employing Oksusu to lock-in existing ones and attract new mobile subscribers (Korea Times, 2016). LGU+ provides extensive free video contents to generate data traffic and thus increase in data revenue.

Content is king

As IPTV providers invested huge resources in mobile OTT services, the OTT market expanded to the mobile field. Recently advertisers have paid more attention to the OTT services on mobile than that on PC. In Korea, mobile advertising revenue shows in a rapid rise from 0.19 billion USD in 2012 to 1.38 billion USD in 2016, with an annual growth rate of 64% while PC advertising revenue decreased by 5% from 1.77 billion in 2012 to 1.47 billion USD in 2016 (Cheil Worldwide, 2015). Content providers started to create content being suitable for mobile device, and platform providers designed mobile-optimizing user interface. People used to watch shortclip video on their smartphone. Ooyala (2015) found that 69% of all video users on smartphone watched short video

under 10 minutes on their smartphone. Netflix also conducted surveyed in 2014 and concluded that 87% of all mobile sessions last less than 10 minutes (GigaOm, 2014). Based on the survey result, Netflix added shortclip content to increase mobile usage. For a couple of years, content providers produces a number of shortclip contents optimizing mobile, which changes in a way of producing contents in terms of the planning and process of production, and the format and story of contents.

In this trend, YouTube creators who show their producing contents on their channels on YouTube have become explosively popular. YouTube has shared its advertising revenue with its creators since 2007(Tubular insights, 2007). Recognizing the opportunity of raising revenue on YouTube, the company which aggregates creators mainly on YouTube, called a multi-channel network (hereafter MCN), has emerged. In detail, the company makes contracts with a number of YouTube creators, assists creators “product, programming, funding, cross-promotion, partner management, digital rights management, monetization/sales, and/or audience development,” and share advertising revenue with creators (PWC, 2014). In the U.S., many MCNs such as Machinima (launched in 2007), Maker Studio (2009), Defy Media (2011), Awesomness TV (2012) have made innovation efforts on producing video contents and reaching users. In Korea, since CJ E&M firstly established a MCN company, Treasurehunter, in 2013, many MCNs such as Videovillage, Kongdoo Company, Dotti, Sandbox Network, etc., have generated various creative shortclip contents targeting at the age group between 19 and 34. Initially the business model of MCNs was advertising, and thus focused on the expansion of a user base. Yet, MCNs evolves to diversify their revenue stream by marketing products on their contents (i.e., product placement), or directly selling products

after releasing contents.

From a platform's perspective, competition becomes severe to offer more extensive library of content to attract more users on its platform. OTT platform providers that only distribute contents such as IPTV, portal, and SNS providers, endeavor to attract and lock-in users by employing strategies such as 1) purchasing contents as many as possible, and 2) acquiring certain popular contents to provide only through their own platforms (Adweek, 2016; Business Korea, 2015b; Korea Times, 2016). Since Chinese investors participated in the Korean program production market after 2010, the power landscape between platform and content providers begin to change. In the past, platform providers had an absolute bargaining power over content providers due to severe imbalance between the number of platforms and that of contents, called a monopsony theory (Cooper, 2002; Noam, 2008). However after big fund from China has been flowed in the production arena, the content providers can create more popular contents attracting Asian users beyond Korean (Korea Herald, 2016b; Korea Times, 2016). Therefore, with the emergence of a number of OTT platforms, the content providers gradually gain bigger bargaining power than platform providers (Noam, 2008; Korea Joongang Daily, 2016b). This trend makes OTT platform providers to face with intense competition for acquiring contents.

Yet, OTT platform providers associated with content providers such as broadcasters and CJ E&M, try to maximize the efficiency and effectiveness of their contents. To do so, several companies recently cooperate altogether, and share revenue (Kim, 2015). They offer their platform containing their contents as a whole to portal platforms such as Naver and Daum, called a platform-in-platform mode to expand an

end-user base. In addition, Broadcasting firms (MBC and SBS) and program providers (CJ E&M, JTBC, Channel A, MBN and TV Chosun) established Smart Media Rep (hereafter, SMR) to earn new advertising revenue in 2014 (Cnet, 2014). SMR makes its member's content into a ten-minute-long-shortclip, and provides the shortclip video with its users via Naver and Daum portal for free to collect advertising revenue. SMR shares revenue with portals and its members. SMR has a clear goal that it absorbs the shortclip video watcher who has the greatest potential to bring SMR to advertising revenue.

In sum, as the OTT market has taken advertising revenue from the traditional video market, traditional video providers such as broadcasting, cable, and IPTV firms, expanded their business to the OTT market in Korea. In the OTT market, existing portal and SNS providers and traditional video firms compete altogether to attract users, which results in intense competition. Increasing number of OTT platforms, with involvement of Chinese funds in the content production market, contribute for weakening OTT platform providers' bargaining power over content providers. OTT platform providers employ various content acquiring strategies to attract users on their own platform. With the emergence of smartphone, the OTT market based on PC has extended to the mobile OTT market. As the mobile OTT market grows, content providers are creating mobile optimizing contents, and they bring innovative changes to the content generating arena.

Policy factor

OTT service regulatory environment

In Korean pay-TV markets, consumers can choose from a pool of broadcasting choices offered by pay-TV service operators, including cable TV operators, satellite broadcasters and IPTV operators (OECD, 2013). Currently, in many regions of the

country, people can choose from the services of at least 5 to 6 different providers, including one cable TV operator, three IPTV operators, and one satellite broadcaster (OECD, 2013). Among these different pay-TV platforms, using IP network, OTT and IPTV provide similar Internet-based video services. However, quality of service (QoS) is not guaranteed for OTT services. Therefore, in Korea, OTT service is not categorized as one of broadcasting services based on the Broadcasting Act. Instead, OTT service is categorized as one of the “value-added telecommunications services” based on the Telecommunication Business Act. In other words, comparatively strict regulatory frameworks are imposed on Pay-TV service operators such as cable TV operators, satellite broadcasters and IPTV operators based on the Broadcasting Act or the Internet Multi-media Broadcasting Business Act. However, light-touch regulation is imposed on OTT service providers. For instance, for market-entry, pay-TV service providers must get licenses. However, for OTT service providers, reporting is only requirement for market entry. Also, comparatively weak regulatory frameworks are imposed on OTT service providers in content regulation and advertising regulation. Thus, regulatory imbalance issues were addressed in Korean pay-TV markets.

Regulatory classification of OTT service providers and the FCC NPRM

As discussed before, even though IPTV and OTT offer similar Internet-based video services, there are regulatory imbalances between these two services. Based upon the current regulatory frameworks, global OTTs are also categorized as one of the “value-added telecommunication service providers” based on the Telecommunication Business Act. Recently Korean Ministry of Science, ICT and Future Planning (MSIP) suggested that OTT services can be continuously categorized as one of the “value-added

telecommunications services” based on the Telecommunication Business Act (MSIP, 2014). However, there are still a lot of criticisms and debates on current regulatory classification of OTT services in media industry.

For regulatory classification of OTT services, in the United States, the FCC released a NPRM (Notice of Proposed Rulemaking) that proposes to classify OTT video programming providers as Multi-Channel Video Programming Distributors (MVPDs), if they deliver a linear programming (FCC, 2014). The FCC suggests that the NPRM will promote the availability of cable and broadcast television programming to OTT providers and enhance consumer choice and competition in the video market (FCC, 2014). The new plan would require OTT providers to carry certain programming and to comply with other regulations currently imposed on MVPDs such as cable providers (FCC, 2014). Also, the plan would also give OTT video providers certain legacy negotiating and carriage rights with respect to both cable and broadcast programming (FCC, 2014). Based on the proposal, individual OTT providers like linear Online video distributor (OVD) are able to elect to be classified as an MVPD or not, after considering the benefits and burdens of being classified as an MVPD. It appears that the FCC proposal opened the door for new plan for regulation of some OTT service providers.

Negative impacts on national economy

OTTs may have negative impacts on national economy. Global OTT players such as Netflix and YouTube may reduce costs of content storage and hosting, and are able to negotiate better content deals (Mnakri, 2015). Therefore, it is difficult for traditional and local companies to compete with the new global players and global OTT service providers take over the market share of offline and local entities (TRAI, 2015).

Also, global OTTs would be location-agnostic, they can take advantage of the variable tax rates across states globally (Mnakri, 2015). Therefore, economic benefits accrue only to the country in which global OTTs are located and national governments stand to lose tax revenues since users purchase goods and services from global players rather than local entities (TRAI, 2015). Thus, global OTT service providers have negative impacts on national economy and government may regulate global OTTs.

Other Issues: Reverse discrimination against domestic players and user protection

In addition, reverse discrimination against domestic players might be an issue. For instance, in Korea, both domestic and global OTT players are categorized as “value-added telecommunication service providers” based on the Telecommunication Business Act. However, if the Telecommunication Business Act applies domestic players only, issues of reverse discrimination against domestic players will be addressed.

Also, based on the Telecommunication Business Act, both domestic and global OTT service providers have an obligation to protect users. Based on the Act, OTT players should promptly address the reasonable opinions or dissatisfactions raised by users with respect to telecommunications services. However, global OTT players may not fulfill their obligation of user protection.

Future Policy Directions

Global OTTs are involved with diverse policy issues. As discussed before, despite OTTs and other pay-TV service providers offer similar video services, in Korea, there are regulatory imbalances issues between OTTs and other pay-TV service providers in media industry. What would be suitable policy solutions for future media industry?

Regarding regulatory classification of OTT service providers, Korean government need to reform regulatory framework for broadcasting services. The FCC NPRM proposed that linear online video distributor (OVD) can be classified as an MVPD (pay-TV providers in Korea). Based upon the NPRM linear OVDs are able to offer popular channels through program access rule and competition in the MVPD markets will be promoted. Also, using IP networks, cable operators and satellite broadcasters may consider employing OTT strategy in future media markets. Considering the FCC NPRM and media market situations in Korea, in the long-term, Korean government may categorize some OTTs as “the “value-added broadcasting service providers”, which needs existing Broadcasting Act reform. Also, considering that dynamic innovations are necessary in media markets, Korean government consider “light-touch regulation,” for OTTs including global OTT players.

Through future regulatory policy reform, effective platform competition among diverse broadcasting platforms in pay-TV markets should be achieved. Platform competition may lead to lower user prices and promotes dynamic innovations in new media industry (ITU, 2003). For effective platform competition, technology neutral-regulation is essential. More discussions are necessary for specific forms of regulation for OTT service providers in future studies.

Regarding global OTTs’ negative impacts on national economy, recovering tax losses, government may consider special reporting obligation for global OTT players. If the global OTT players are categorized as one of “the “value-added broadcasting service providers,” based on the new regulations, global OTTs can be located in Korea. Also, if the special reporting obligation can be institutionalized, reverse discrimination

issues against domestic players might be reduced.

In addition, for promoting user protection, Korean government can employ the Telecommunication Business Act and implement existing regulation effectively. For instance, based upon the interpretation of Telecommunication Business Act (Article 50), global OTTs should not commit any acts which substantially undermine telecommunications users' interests. If the global OTTs violated Article 50, the Korea Communications Commission may order global OTT players amendment to the terms and conditions use, suspension of prohibited acts and prohibition against the recruitment of new users for up to three months.

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