

## **Business Strategies of Korean TV Players in the Age of Over-The-Top (OTT) Video Service**

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This article is a comparative analysis of business models and strategies employed by firms in the South Korean digital video marketplace facing competition from over-the-top (OTT) content services. It analyzes the strategies of South Korean firms, including traditional access providers (e.g., telecom companies) deploying content, traditional content providers (cable networks) seeking new delivery channels, and terrestrial content and access providers (terrestrial broadcasters). Unlike third-party services, such as Netflix, that came up in competition with existing broadcasters and upended traditional paradigms of pay TV markets, South Korean OTT has emerged as extensions of established pay TV services. Thus, OTT services in Korea became an extension of established players' offerings and part of their N-screen strategy, further entrenching their market position.

*Keywords: over-the-top, OTT video, business models, Korea TV players*

The entry of low-cost, subscription-based over-the-top (OTT) video streaming services has shaken up the complex, vertically integrated television distribution industry that has long been dominated by the traditional multichannel pay TV providers: In Korea, these include cable, satellite, and telco operators (Skot, 2014). OTT video services may be defined as those provided by an online content provider (such as Netflix) over the infrastructure of a last-mile broadband access provider unaffiliated with the online content provider. A market research report forecasts rapid growth of global OTT video markets: Revenues were \$16.3 billion in 2015 and are estimated to reach \$27.8 billion by 2019 (PwC, 2016).

Consumers are increasingly streaming or downloading long-form video programming (mainly movies and TV shows) by using OTT video services and sometimes unsubscribing from traditional video providers (Arolovitch, 2015). This phenomenon—described as “video cord-cutting” or “over-the-top (OTT) bypass”—suggests that the business models of traditional TV service providers are under threat (Banerjee, Rappoport, & Alleman, 2014).

OTT services were initially provided by specialized OTT video content providers such as Netflix, unaffiliated with traditional TV providers. As a result, traditional pay TV service providers have experienced

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subscriber losses and revenue slowdowns, as OTT providers have gained market share. In December 2016, according to comScore data, more than 49 million homes accessed at least one OTT service. There are now 11 OTT services in the United States that reach one million or more homes in a given month (Rich, 2017). Meanwhile, the top pay TV operators, tracked by the media research firm Leichtman, had 93.3 million subscribers in the first quarter of 2017—a 1% dip from the same period a year earlier (Rodriguez, 2017).

Pay TV providers are responding to this new threat by experimenting with new services such as (1) multiscreen (N-screen): “everywhere, anywhere” services; (2) monetizing content beyond the subscription; (3) online pay TV packages: a fully OTT model; (4) “cloud pay TV,” accessed through an application on smart TV sets; and (5) hybrid broadcast/broadband services (Gartner, 2013, cited in Song, 2013). Not only pay TV providers, but also all types of service providers, including terrestrial broadcasters, IT companies, and device manufacturers wishing to enter the TV media business, have begun to provide services in OTT form (Crandall, 2014; Korea Information Society Development Institute [KISDI], 2013; Song, 2014).

Despite the criticality of OTT video services, not many studies have been conducted on business models and strategic positioning of TV players, except in consulting firm reports or company trade reports (ABI Research, 2014; Aidi et al., 2013; Ross & Erasmus, 2013; Song, 2013). Therefore, this study aims to compare and contrast the business models and strategies of South Korean TV players as a case study. As a case study, this article examines a phenomenon, namely the responses of established Korean video providers to OTT, within the context of a broadcasting/telecommunications ecosystem. We use Schumpeter’s theory of innovation, as discussed next, to help identify the critical variables in the case—the identity of the innovating entrepreneurs and the market structure in which they operate. The case investigation is open-ended and involves both quantitative and qualitative data from a variety of sources, including government publications, industry reports, trade press articles, and news media reports. The case covers the period from the introduction of OTT services to the present.

First, it should be explained why we focused on the South Korean market for the case study. South Korea has emerged as a leader in broadband and telecommunications (OECD, 2017a). South Korea was also one of the first markets to see the emergence of a highly competitive online video market in which many competitors such as YouTube, Olleh TV mobile, Oksusu (previously Btv Mobile and Hoppin), LG U+HDTV, POOQ, and Tving. Thus, it may legitimately be asked whether this is the future of OTT markets everywhere. Third, compared with many other markets, a more diverse set of providers are operating in South Korea, including telecom providers, mobile companies, terrestrial broadcasting companies, and cable TV systems. Using the South Korean market as a case study allows the responses of a broader set of video providers to be examined. Therefore, this article, as an analysis of business models and strategies employed by firms in the digital video marketplace facing competition from OTT content services, focuses on the Korean TV market. It analyzes the strategies of all players, including traditional over-the-air broadcasters, pay TV providers, telecommunication network providers, and the new OTT service providers.

The article is structured as follows. In the next section, the theoretical foundation of the article, Joseph Schumpeter’s theories of creative destruction and innovation, is discussed. Next, the section titled “Defining OTT Video” defines OTT video to make a clear distinction from other OTT services, such as mobile VoIP. In the section titled “Impact of OTT Video,” the impacts of OTT video are addressed, and the response

of traditional communications service companies to the threat are discussed. The following section examines the Korean firms' responses to the emergence of OTT services. Finally, in the conclusion, we return to the article's theoretical concerns and present and discuss its main conclusions.

### **Schumpeter's Creative Destruction and Innovation**

It is commonly observed that markets are in a constant process of change, with products, firms, and business models entering the market and keeping pace with changes in consumer tastes and preferences, technology, and regulation. Economists have put forward many explanations for these changes, which often occur in business cycles (for a survey, see Arnold, 2002), including interest rate, credit availability, and technology. In contrast to these "exogenous" explanations, Joseph Schumpeter (1883–1940), an influential theorist on markets and market evolution, posited that economic change is almost exclusively driven by endogenous factors, specifically, innovation within firms. According to a recent summary of Schumpeter's thought, "economic development was an emergent property arising from endogenous systemic change and not a response to external stimuli" (Juma, 2014, p. 6). Schumpeter's seminal work developed the notions of creative destruction and disruptive innovation (Schumpeter, 1942), making it a useful framework for the analysis of a market-disrupting innovation like OTT.

According to Schumpeter, four key elements drive market evolution (Juma, 2014). First, market developments are driven by innovation, "the creation of new combinations including new products, new production methods or processes, new organizational forms, new markets, and new sources of raw materials and inputs" (Juma, 2014, p. 6). OTT video services fit the mold of innovation in this definition because they represent the combination of new modes of delivery and new business models, albeit often with existing media content. The second element is entrepreneurship: Entrepreneurs develop and/or implement the innovation in response to the market opportunities they identify. Third, entrepreneurs as change agents "disturb the equilibrium of the steady-state and cause economic discontinuities" (Juma, 2014, pp. 7–8). He argued that the quest for profit (or surplus value) encourages investment in the creation of new technologies. These investments eventually will lead to the obsolescence, or destruction, of older technologies and any business models that are dependent on them. These discontinuities are evident in the case of OTT, based on data provided later in the article. The fourth element of market evolution consists of financial institutions and credit-providing agencies, which support entrepreneurs and indirectly assume the risk of innovation.

A critical concern in applying Schumpeter's framework to the OTT case is the identity of the entrepreneur. The conflict may be traced back to Schumpeter's own writing. In *The Theory of Economic Development* (Schumpeter, 1949), Schumpeter argued that innovation would arise from new firms outside the dominant core of an industry, stating that "in general it is not the owner of stage-coaches who builds railways" (Schumpeter, quoted in Juma, 2014, p. 7). However, elsewhere, Schumpeter has also stated that innovation happens in large firms that have surpluses to invest in R&D (Schumpeter, 1942). This sort of innovation happens within business models and tends to confirm the dominance of large firms. Smaller firms, according to this latter view, do not have the investible surpluses, technical know-how, or managerial expertise to produce market-challenging innovations. Established firms tend to avoid disruptive innovations,

or actively oppose them. They tend not to change business models, even when the business models face threats.

In the years since Schumpeter, many scholars have examined the locus of innovation in markets (Acs & Audretsch, 1987; Agrawal, Cockburn, Galasso, & Oettl, 2014; Koeller, 1995; Rogers, 2004), specifically examining if there is a relationship between firm size and innovation. Acs and Audretsch (1987) found that the innovative advantage of large versus small firms is dependent on market structure. They stated that "large firms have an innovative advantage in markets characterized by imperfect competition, but small firms have the innovative advantage in markets more closely approximating the competitive model" (p. 567). As we will show, market structure is a critical factor to explain the evolutionary path taken by the Korean OTT markets.

### **Defining OTT Video**

For the purposes of this article, OTT video services may be defined as those provided by an online content provider (such as Netflix) over the infrastructure of a last-mile broadband access provider unaffiliated with the online content provider. "Unaffiliated" here means that there is no vertical integration or other joint ownership between the content provider and the broadband access provider. Therefore, any video service, including communications or video, provided to consumers by third parties unaffiliated with the entity providing the Internet access might be considered an OTT video service. OTT services may be provided to a variety of user platforms (computers, tablets, smartphones, and other mobile devices), and over a variety of broadband connections (fixed and mobile). Some OTT providers have negotiated carriage arrangements with content distribution networks or with last-mile Internet Access Points (IAPs) to make it easier for end users to access their content (Wyatt & Cohen, 2014). For the purposes of a working definition in this article, we do not consider such arrangements as violating the "nonaffiliation" condition; third parties are negotiating fee-based arrangements with ISPs for transmission of their data to end users as OTT video services.

OTT is a promising model for content distribution that takes advantage of current network infrastructure to deliver television and movie programming over the Internet, rather than through a traditional cable or satellite connection. Although the OTT video service originated from the wired broadband market, it has been rapidly migrating to the mobile video market. The migration has made pay TV providers—cable TV, satellite TV, and Internet protocol television (IPTV) providers—feel threatened about their ability to sustain their pay TV service. The U.S. Federal Communications Commission (FCC) categorized such OTT providers as online video distributors (OVDs), differentiating them from existing over-the-air broadcasters and multichannel video programming distributors (MVPDs)—mostly cable operators and satellite TV providers. However, the FCC recognizes that some companies may offer more than one type of video service, such as an MVPD service and an OVD service (for example, DISH Network/Sling TV), or an MVPD service and broadcast service (Comcast/NBCU; Federal Communications Commission [FCC], 2015). In effect, the legal distinction between content providers, on the basis of their online versus offline status, may erode. Accordingly, the FCC proposed in 2014 that OVDs providing linear streams of programming shall be defined as MVPDs (FCC, 2014). However, the FCC's "linear" definition implied prescheduled, continuous streams of video programming, which none of the dominant U.S. OTT services provided—services such as

Netflix are on-demand services. Therefore, as of the current writing, the FCC continues to draw a distinction between broadcast stations, MVPDs, and nonlinear OVDs (FCC, 2017).

South Korea too is not exceptional in this sense; both existing telecom and media companies have been active OTT providers. However, it can be seen in the article that South Korean OTT services exist in a wider ecosystem of smart media business models (KISDI, 2014), where they compete with close substitutes that do not technically fit the Body of European Regulators of Electronic Communications' (2016) definition of OTT services. For example, many Korean video providers have deployed N-screen strategies, which are often conflated with OTT in the Korean media and policy discourse. N-screen refers to "the user interface in which users can seamlessly access to the same contents—pictures, music, data, and video—through many different platforms and devices connected to the Internet" (Choi, 2011, p. 11). N-screen overcomes the restriction of time, space, and devices,<sup>2</sup> and compete effectively with OTT. But these services are closely associated with the pay TV subscription offered by dominant telcos and cable companies and are often consumed as part of a pay TV package.

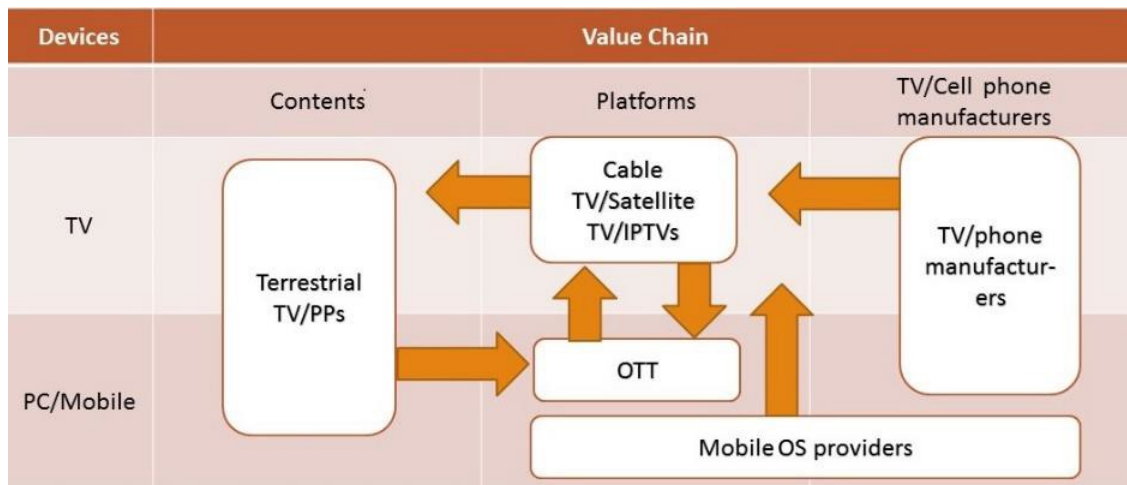
Therefore, in this article, we draw a distinction between "pure OTTs," as multiplatform content delivery services combining wired broadband, mobile, and traditional platforms delivered on demand by content providers over nonaffiliated access providers (telcos and cable broadband companies), and "OTT-like services," such as N-screen strategies, that are often deployed by dominant carriers to preempt new entrants providing OTT services.

### **Impact of OTT Video**

The breakthrough convergence phenomenon has been changing the traditional value chain (Figure 1). The impacts of the new OTT services are felt at all levels of the value chain, but it is most useful to focus separately on the impacts on traditional video providers and viewers. Regarding impacts on video providers, aggregators and content producers are pursuing direct-to-consumer opportunities, distributors are moving into content production, and hardware producers are offering integrated solutions—combining devices, operating systems, and content access on one platform (McKinsey & Company, 2014). Even though each player started its business from all different sectors, they have converged in the same direction to the areas of content, platform, network, and device (CPND; Song, 2014).

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<sup>2</sup> According to K. Hong (n.d.), N-screen is defined a "unified entertainment experience across several devices," meaning that one can flit between watching the same program on one's TV, tablet, or smartphone, with the software automatically adapting the programming to the various formats.



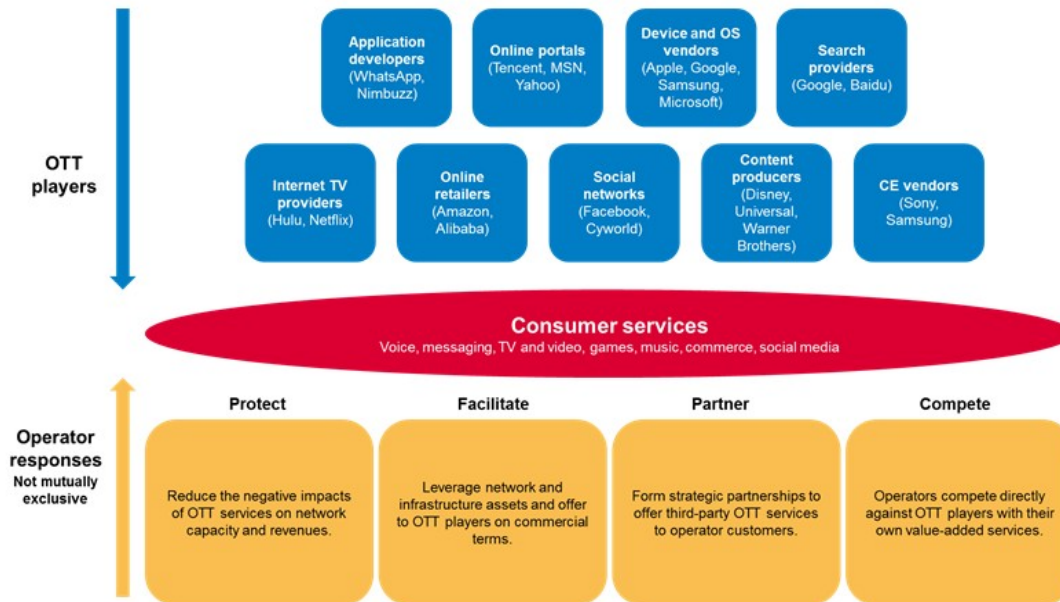
Source: Song, 2014.

**Figure 1. Changing value chain.**

On the other hand, from the users' perspective, OTT services appear to be as good as previous equivalents even as they offer the additional functionality of being free of a particular network and device, and are provided for free (Song, 2013). It means a reduction in revenues for access providers because of cord-cutting (unsubscribing from pay TV because of the availability of online content) or cord-shaving (downgrading the subscription to the basic plan and buying OTT service instead). "Cord-nevers" are those who have never subscribed to multichannel pay TV services—for example, millennials setting up their first homes and deciding to forgo subscribing to cable in favor of accessing all their video programming from OTTs and other online providers (Alleman, Fontaine, Katz, & Le Champion, 2013; Skot, 2014).

From a business perspective, as OTT services grow and gain profitability while using the network for free, traditional access providers continue to experience a reduction in revenue and profitability.<sup>3</sup> They have opposed OTT services, accusing them of free-riding on their network resources—causing a big chunk of data traffic while generating no revenues for access providers. An industry research firm suggests that telecom companies and pay TV providers could choose from four OTT response strategies: (1) protecting, by blocking OTT services to reduce negative impact; (2) facilitating, by leveraging network assets to offer them to OTT providers for a price; (3) partnering, by offering OTT as third-party services to their own access customers; and (4) competing, by offering the same service (Figure 2).

<sup>3</sup> Global total broadcast TV advertising revenue, consisting of multichannel and terrestrial TV advertising revenue, accounted for 97.2% of global total TV advertising revenue in 2014. But as viewing continues to move away from traditional networks and toward digital alternatives, global total broadcast TV advertising revenue will make up a reduced 94.3% of global total TV advertising revenue by 2019 (PwC, 2015).



Source: Ovum, 2013, cited by Song, 2013.

**Figure 2. Telcos and pay TV providers' response strategies to the threat of OTT players.**

However, OTT services have increased in relative importance rapidly, and traditional access providers started to recognize that there might be greater prudence and opportunity in cooperation rather than in opposition (Ovum, 2013, cited in Song, 2013). For example, the Mobile World Congress held by the Global System for Mobile Communication Association in February 2014 fully embraced OTT providers in every part of the event and showed such a change of perception. Thus, the cooperation between telecom providers and OTT providers has been increasing (H. Hong, 2014; Song, 2013).

### **Korean Providers' Responses to OTT**

In South Korea, broadband and mobile penetration have risen faster than in most other countries (OECD, 2017b). The Internet usage rate is 82%, with 99% broadband penetration in the household. Since the introduction of smartphones in 2009 in South Korea, the penetration of mobile phones—smartphones (95.5%) and feature phones (4.2%)—has risen to 99.7% of the whole population. Users in their teens and 20s are almost universally likely to own cell phones, while users older than 60 have 78.3% penetration (National Information Society Agency [NIA], 2014). In this environment, cell phones with Internet access have been prospering as the platform for all kinds of communication applications, not only for interacting with people but also for watching videos. South Koreans' email and SMS usage have been decreasing thanks to the increasing use of the mobile messenger services. The

power shift toward the mobile market has made dominant video market players and telecommunication providers more focused on developing a mobile platform (NIA, 2014).

In such developed broadband and mobile platforms, OTT video services have developed and rapidly expanded their market share by double digits annually—by 57% in 2016 alone—reaching revenues of about \$430 million (Korea Communications Commission [KCC], 2016). Their share of advertising revenue also keeps increasing (5.8% of all advertisement spending). In streaming video services, the existing communications service providers using multiplatform (N-screen) services have been the innovation leaders. Users of streaming services already account for half of the population, reaching 23.7 million of 50.22 million (in 2013).

The essential requirements for providing OTT services are content, delivery networks (aggregating content), and access (single or multiplatform). But none of the traditional players in the media/telecommunications industries controls all three requirements, resulting in dynamic cross-media entry and partnerships (Lee, 2016). Traditional access providers (e.g., telecom companies) deploying content, traditional content providers (cable networks) seeking new delivery channels, and terrestrial content + access providers (terrestrial broadcasters) seeking additional delivery channels have actively participated in the OTT video service market. For example, traditional access providers (mainly broadband and mobile communication providers) SKT, KT, and LGU+ have launched their own OTT services and used them as a part of N-screen plans. Also, terrestrial broadcasters have offered services such as POOQ, and cable TV providers' offerings include Tving and EveryOn TV. In this context, TV set manufacturers like Samsung and LG, and main portal sites such as Naver and Daum, have added their presence in competition for OTT video services (Song, 2013). However, the existing video providers, including terrestrial broadcasters and pay TV providers, have still been prevalent in market size and power. OTT video services are often provided free with a subscription to a certain package plan level. Free OTT promotion events are often available (Jeon, 2017).

The percentage of total subscribers in the pay TV market is as follows.<sup>4</sup> Cable TV (system operators), at 48.7%; IPTV at 40.3%; satellite at 11%; and OTS (Olleh TV Skylife, KT's combined product of its satellite TV [Skylife] and IPTV [Olleh TV]) at 7.9%. While cable TV subscribers are more, they have been decreasing. Meanwhile, telecom companies' IPTV continues to grow, eroding the pay TV market. Thus, the pay TV market is getting more competitive. On the other hand, three main terrestrial broadcasters' power in programming and rating are still prevalent even with the growth of cable TV networks. Their combined rating (KBS, MBC, and SBS) was 20.1% in 2015, showing a big gap from the most popular cable channel's ratings, 1.61% (MBN). OTT video service users are more likely to subscribe for a pay TV broadcasting than non-OTT users. In a survey conducted by a government research institute, the majority of OTT service users (86%) responded that they would still keep pay TV services.

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<sup>4</sup> Pay TV includes analog cable, digital cable, satellite TV, and IPTV, with a total of 94 pay TV providers in 78 broadcasting regions. While cable TV's market share has been slowly decreasing, IPTV has increased its market share. The company with the biggest market share was KT, with its satellite TV (Skylife) and IPTV (Olleh TV) recording 29.3% (KCC, 2016, p. 34).



Such responses indicate that OTT video service is a complement to, rather than a substitute for, the existing pay TV services in South Korea (KCC, 2016).

Despite its rapid growth, likewise, OTT video service has not yet been a threatening force against the existing terrestrial broadcasting and pay TV markets; its market share was only 3.8% of the whole pay TV video market in 2016 (KCC, 2016). Telecom companies' IPTV led the growth of the pay TV market by adding more subscribers than other pay TV subscribers. OTT has been provided as a part of triple or quadruple services, combining video, Internet, telephone, and mobile services. Thus, such combined package subscribers recorded 41.7% of all pay TV subscribers in 2015, and OTT has been used as an attractive complement to the bundled package to make subscribers "stickier" (KCC, 2016).

### ***Pursuing N-screens (Multiplatform)***

Unlike the case of the United States, where third-party players (e.g., Netflix) rather than pay TV providers dominate the OTT video service market, the Korean case draws a different picture. Domestic telecommunications service providers, terrestrial broadcasters, cable TV providers, and IPTV providers have led the online video market, vigorously launching OTT-like video services as part of their N-screen strategies. For instance, consumers buy one ID and use it across multiple devices to access content. While global companies like Netflix have focused on obtaining global platforms with market penetration and scale economies, Korean companies focus more on making connections to multiscreens and mobile devices (KISDI, 2013).

OTT video service does not yet have a specific definition in Korea. Online video content providers are large in number and keep evolving because the requirement to enter the market is just registering as a value-added provider. A government report estimates that the top 13 OTT video services occupied 97% of the OTT market in 2016 (KCC, 2016). Their business models include free service with advertisements (54.4%), subscription (15.9%), and a la carte VOD (10.2%; KCC, 2016; see Table 1). As for free services, YouTube and Naver TV Cast were the largest OTT providers. Next, traditional telecom service providers (KT's Olleh TV mobile, SKB's Oksusu, and LGU+'s video portal), terrestrial broadcasters (POOQ), and cable TV providers (Tving by CJ E&M and EveryOn TV by Hyundai HCN) led the market as subscription-based plans (KCC, 2016; KT Economics & Management Research Lab [KT], 2014). However, regarding the total ad revenue of OTT in 2016, YouTube was the top OTT video service. YouTube revenue is 2.5 times higher than Naver and five times higher than the combined OTT revenue of SBS, iMBC, and KBS (Im, 2017).

Furthermore, diversified devices have increased OTT video use on multiple platforms. Thanks to the diversified devices (smartphones and tablets), the total TV rating through traditional TV sets continues to decline—for instance, from 30% in 2008 to 27% in 2013, while N-screen users are rapidly increasing, from 29.8% in 2011 to 53.1% in 2012 (KISDI, 2013). The unique sociocultural factors of South Korea—the overwhelming prevalence of mobile devices and their high use, and an exceedingly mobile population in the urban environment—have contributed to the development of OTT video on N-screens (NIA, 2015). The latter factor is important because Koreans access video content using mobile

devices in nontraditional settings such as restaurants, subways, and public venues, making an N-screen strategy much more attractive and lucrative to service providers.

**Table 1. Comparison of Business Models.**

Category	Company	Content	Channel	Single or Multiplatform?	Revenue Model
<b>Telecom service providers (IPTV based)</b>	KT—Olleh TV mobile	Terrestrial TV programs, cable TV, movies, children's programs, sports, documentaries, and animations	80 real-time channels (terrestrial TV/cable TV programs) and 140,000 VODs 6 GB a day	Multiplatform (Olleh TV Skylife, Olleh TV live and Olleh TV mobile on PC, mobile, tablets, TV-based OTT, Telebee)	<b>—Flat rates based on packages</b> <b>—a la carte VOD</b> <b>—Ads before a content plays</b>
	SK Broadband—Oksusu (BTV Mobile +Hoppin)	A variety of real-time broadcasting, VOD, terrestrial TV programs, new blockbuster movies, popular American dramas, animations, educational programs for children, cable TV programs, etc.	—108 real-time channels (terrestrial TV/cable TV programs), 85,000 VODs, voice search, TV apps (YouTube/Chrome) and Web search —100% LTE data package	Multiplatform (HD VoD on mobile & tablets; full HD video streaming service using the LTE-A network; Oksusu on PC service launched in September 2017; B tv real time, B tv smart, B tv UHD)	<b>—Flat rates based on packages</b> <b>—a la carte VOD</b>
	LG U+HDTV—video portal	TV programs, HD broadcasting in real time, 20,000 VOD, etc.	120 real-time channels (70 real-time broadcasting channels), VOD, Google services	Multiplatform[U+TV G (IPTV+Google TV), IPTV U+TV on mobile, tablets]	<b>—Flat rates based on packages</b> <b>—a la carte VOD</b>
<b>Terrestrial broadcasters</b>	POOQ	TV programs (real-time and replay). N-screen service from an alliance of four TV broadcasters: MBC, SBS, KBS, and EBS	46 real-time terrestrial broadcasting channels, cable TV channels, VOD	Multiplatform (PC, mobile, tablets), POOQ started to collaborate with telecom IPTV providers for their real-time TV program broadcasting.	<b>—Flat rates based on packages</b> <b>—a la carte VOD</b>

<b>Cable TV network</b>	CJ E&M—Tving	Pay content created by terrestrial broadcasters and its cable subsidiary CJ E&M	150 real-time channels (terrestrial broadcasting programs/cable TV channels/foreign channels) and 50,000 movie and drama VODs. Only 80 channels are free.	Multiplatform (PC, mobile, tablets)	<ul style="list-style-type: none"> <li>—Free content</li> <li>—Ads before a content plays</li> <li>—Flat rates based on packages (diverse sets of plans depending on channels and content)</li> <li>—a la carte VOD</li> </ul>
	Hyundai HCN—EveryOn TV	Free N-screen TV service, 50 cable TV program providers' real-time programs	250 channels mostly based on cable TV program providers	Multiplatform with a dongle purchase (PC, mobile, tablets)	<ul style="list-style-type: none"> <li>—Free</li> <li>—Ads before a content plays</li> <li>—Based on a dongle for the service</li> </ul>
	Dlive	Netflix content by affiliation, Korean cable TV content, entertainment, hobbies, religion, education content	255 channels through Dlive plus OTT set-top box, Netflix content by an exclusive contract, VOD, and 12,000 free content	Multiplatform (OTT set-top box, mobile, tablet, smart TV)	<ul style="list-style-type: none"> <li>—Subscription for Dlive special (Cable + OTT)</li> </ul>
<b>Portal site based</b>	YouTube	UCC, TV content, movies, video clips	UCC, broadcasting content with ads, movie VOD	Multiplatform (PC, mobile, tablets)	<ul style="list-style-type: none"> <li>—Free</li> <li>—Ads before a content plays</li> <li>—Flat rate: YouTube Red (without ads)</li> </ul>
	Navercast—Naver TV/V Live	UCC, TV content, Web-only content (Web drama, Web entertainment)	<ul style="list-style-type: none"> <li>—UCC, TV content, movie VOD</li> <li>—Top 100 video clips (edited from TV programs)</li> </ul>	Multiplatform (PC, mobile, tablets)	<ul style="list-style-type: none"> <li>—Free</li> <li>—Ads before a content plays</li> </ul>
	Kakao TV (Daum TV Pot + Kakao TV)	UCC, TV content, Web-only content	<ul style="list-style-type: none"> <li>—Real-time TV/VOD</li> <li>—UCC</li> <li>—Memedial*</li> </ul>	Multiplatform (PC, mobile, tablets)	<ul style="list-style-type: none"> <li>—Free</li> <li>—Ads before a content plays</li> </ul>

<b>Independent OTT company</b>	Pandora TV	UCC, TV content	UCC (memedia), online video sharing	Multiplatform (PC, mobile, tablets)	<ul style="list-style-type: none"> <li>—<b>Advertisement to user-submitted video clips</b></li> <li>—<b>Unlimited storage space for users to upload</b></li> </ul>
	Afreeca TV	UCC by opening a broadcasting room online	<ul style="list-style-type: none"> <li>—3,500 real-time channels provided online by individual users (Broadcasting Jockey)</li> <li>—Free Memedia</li> </ul>	Multiplatform (PC, mobile, tablets, smart TV application launched in 2017)	<ul style="list-style-type: none"> <li>—<b>Free</b></li> <li>—<b>Ads before a content plays</b></li> <li>—<b>Viewers can give virtual prizes to BJs</b></li> <li>—<b>Fee from BJs in changing the prizes to cash</b></li> </ul>
	Watcha play	25,000 movies, dramas, documentaries, etc.	—Movies, animation, TV broadcasting, music, game, entertainment content, and kids' programming.	Multiplatform (PC, mobile, tablets, smart TV application launched in 2017)	<ul style="list-style-type: none"> <li>—<b>Free for one month</b></li> <li>—<b>\$7 monthly thereafter</b></li> </ul>
	<b>GOM TV</b>	<b>UCC, TV content, movies</b>	<b>Online content on GOM player (movies, animation, TV broadcasting, music, games, adult and special entertainment content), free Tving TV</b>	<b>Multiplatform (PC, mobile, tablet, smart TV application launched in 2017)</b>	<ul style="list-style-type: none"> <li>—<b>Free content with ads/premium pay per view</b></li> <li>—<b>Flat rates based on packages (combination of channels)</b></li> </ul>

Source: KCC, 2016; company sites.

UCC: user-created content.

\*Memedia: a collective term for online services that allow a user to post his or her own content, such as blogs, photographs, and personal profiles, on the Internet (Collins English Dictionary).

As for the online streaming service, content service providers with N-screen strategies have been leading the market. At present, about 70% of the VOD market revenue is collected by broadcasters with content, and 30% by N-screen OTT providers. The N-screen service has more than 23 million users, almost half of the whole population. About 4 million of these users pay monthly fees for the service. Recently, more VOD users have switched to monthly subscriptions because of an increase in the a la carte VOD download prices (Song, 2014).

### ***Providing Catch-Up TV Programs on the Go***

Since a pay TV consortium, CJ E&M's Tving, began the OTT video service on an N-screen model—mostly to allow users on the go to catch up with TV programs they might have missed—this type of TV watching has sharply increased. Traditional access providers like mobile telecommunications operators SKT, KT, and LGU+ started to provide TV programs on N-screen service, and their paid mobile IPTV subscribers skyrocketed. A terrestrial broadcasters' consortium for OTT, POOQ also successfully increased subscribers underlining the attractiveness of the original content warehouse in Korea. The companies that started OTT video on N-screen for the first time were SK Planet (Telco), POOQ (terrestrial broadcasters' consortium), and Tving (cable TV consortium; Table 2), and their services included diverse functions such as continuous relay watching, program download reservation, and individualized favorite channels register.

**Table 2. The First OTT Pioneers and Their Services.**

<b>Telecom companies</b>	<b>Broadcasters</b>	<b>Pay TV providers</b>
SK Planet - Hoppin	MBC + SBS - POOQ	CJ HelloVision - Tving
<ul style="list-style-type: none"> <li>—VOD on TV through HDMI connection</li> <li>—Browsing using a Bluetooth remote controller.</li> <li>—Continuous watching, reserved download, 30-minute preview, fast upload after live TV shows</li> </ul>	<ul style="list-style-type: none"> <li>—Real-time TV: 30 channels</li> <li>—VOD content</li> <li>—Registering favorite channels and reserved download service</li> </ul>	<ul style="list-style-type: none"> <li>—Unique content (e.g., Game competition, <i>league of legend</i>)</li> <li>—Continuous watching on TV</li> </ul>

Source: NIA, 2014; Song, 2014.

### ***Bundling IPTV, Broadband, Mobile Communication, and OTT***

A significant element of the Korean OTT market has been the mobile OTT video services provided by IPTV providers, as previously mentioned. The 3G telecommunications operators have bundled such mobile OTT video services with their existing services such as IPTV, mobile communication, and broadband access services for a fixed monthly fee. The bundling enables consumers to use OTT video service for a small additional fee once the package is purchased (Table 3).

**Table 3. Mobile IPTV Service in South Korea.**

<b>Provider</b>	<b>Service name</b>	<b>No. of Subscribers (million)</b>	<b>Monthly fee</b>
KT	Olleh TV mobile	4.60 (1.30)*	5,000 won (USD \$4.29)
SKB	B tv mobile pack	5.60 (2.50)*	3,000 won (USD \$2.56)
LG U+	U+ HDTV	7.0 (1.80)*	5,000 won (USD \$4.29)

\*paid subscribers.

Source: KISDI, 2014.

A national survey found that 53.8% of OTT users used the service as a part of a bundling package that could include broadband access, mobile phone, IPTV, or cable TV (KISDI, 2016a). Interestingly, this survey found that pay TV subscribers were more likely to use OTT than non-pay TV subscribers and agreed more that OTT could replace the existing pay TV service as compared with other groups. Thus, it can be speculated that OTT video service is not competing with the existing broadcast or telecom services, but is used as a means to have customers hold the subscribed service plan in Korea. In this scenario, it seems uncertain how an independent OTT video service provider like Netflix can survive.

However, the mobile TV services provided by mobile telecommunications operators, including SKT, KT, and LGU+, can be used only with 4G LTE services. For 3G smartphones, the service is available only with Wi-Fi and not with 3G. Furthermore, with the recent introduction of the LTE-A service, which supports a high speed of 150 Mbps, the environment of the mobile OTT video service was improved (NIA, 2014). Considering the rapidly increasing number of 4G LTE users in Korea, OTT video service as a value-added service will keep growing.

### ***Collaborating With Content Powerhouses***

The dilemma of traditional access providers (e.g., telecom companies) is always how to secure quality content. As OTT emerges, the market value of original quality video products has gone up just like the value of original music skyrocketed in the music industry after online piracy. Large media companies that provide an umbrella for diversified types of content creation are poised to remain strong regardless of overall industry dynamics, as long as they produce compelling content (Gimpel, 2013). Traditional access providers and IPTV companies—KT, SKT, and LG—quickly entered into partnerships with broadcasters and, since 2014, have collaboratively offered POOQ as part of their array of services that stream terrestrial broadcasters' original content (KISDI, 2014). However, the relationship between content providers and OTTs continues to be confrontational. In 2017, real-time terrestrial TV streaming on mobile networks was briefly halted and then revived in May 2017; negotiations over pricing between broadcasters and mobile providers broke down and were then resolved (Ju, 2017; H. J. Park, 2016). Continuing conflicts between telecom service providers (IPTV mobile OTT providers) and terrestrial broadcasters stem from the broadcasters' price increases and IPTV providers' growing clout in negotiation. Recently, IPTV providers have increased their content power by securing much original content through business partnerships (Ju, 2017).

South Korean terrestrial broadcasters have played a dominant role in providing original and live TV content, and loading POOQ, their own OTT, on the platform will be an attractive strategy for telecom

companies. Real-time TV shows are extremely popular in many countries, not to mention big sporting events, which tend to have powerful audience appeal and strong brand impact. Thus, it is advised that "where possible, media companies should take advantage of the 'live' phenomenon and provide consumers with unique and premium experiences connected to their propositions—experiences that are difficult to replicate in the digital world" (McKinsey & Company, 2014, p. 6). Thus, in the markets where terrestrial TV broadcasters have dominant market power in providing live TV programs, collaborating with such content powerhouses seems inevitable. Some OTT companies provide the platform for real-time programs and gain a major share of their revenue from the rental of their platform, like Hyundai HCN/Pandora TV's EveryOn TV (KISDI, 2014).

### ***Developing Their Own STB***

Traditional pay TV companies have been leading the development of an OTT set-top box (STB), a so-called smart STB device similar to Google TV, to enter the device market. For instance, EveryOn TV developed EveryOn Cast, which can be connected to a TV HDMI unit to receive TV 250 channels. CJ HelloVision's "helloTV smart" and Tbroad's "smart plus" were released in 2013. Prominent IPTV players have also developed an Android OS/HTML5/Google TV/Samsung Smart TV platform based smart STBs that could provide OTT streaming service. For example, KT's "olleh TV smart," SK Broadband's "B TV smart," and LG U+'s Google TV-based "U+ tv G" are STBs released since 2012 (NIA, 2014). Device manufacturers such as Samsung and LG have also developed smart TV sets and simultaneously developed smart and social applications in their classic TV sets. In the absence of independent OTTs that can compete against traditional communications service providers, Korean OTT players have kept the device manufacturers in check (Song, 2014). Samsung and LG have focused on platform leadership and application development, and for a while, they allied with major apps developers; however, currently they seem to be reverting to their original business: manufacturing advanced smart TV/UHDTV sets with the upgraded user experience.

### **Conclusions**

This article is an analysis of business models and strategies employed by South Korean firms in the digital video marketplace facing competition from OTT content services, using Schumpeter's model of innovation. It analyzed the strategies of all players, including traditional access providers (e.g., telecom companies) deploying content, traditional content providers (cable networks) seeking new delivery channels, and terrestrial content and access providers (terrestrial broadcasters).

The Schumpeterian model draws attention to four factors in market evolution: the nature of innovation; entrepreneurship; market disruption and obsolescence of older business models; and the role of financial resources and incentives. The impact of each of these factors was evident in the Korean case. OTT as an innovation emerged earlier in South Korea because of the technology and business environment prevailing in that country. A unique aspect of Korea was the much faster diffusion of mobile devices and the higher speed of broadband networks (OECD, 2017b). As a result, Korean viewers switched to online media consumption, forcing established players and new entrants to deploy their content to wired and mobile broadband platforms, following the viewers. However, OTT as innovation was enabled only by ancillary innovations in technologies (e.g., set-top boxes), content, and business models (e.g., N-screen strategies).

A critical concern in applying Schumpeter's framework to the OTT case is the identity of the entrepreneur. Schumpeter himself argued in different places that innovation will arise from new firms outside the dominant core of industry, or in large firms that have surpluses to invest in R&D. Other scholars who examined the locus of innovation have also found contrasting results (Acs & Audretsch, 1987; Agrawal et al., 2014; Koeller, 1995; Rogers, 2004). Acs and Audretsch (1987) found that the innovative advantage of large versus small firms is dependent on market structure, with large firms having an advantage in imperfectly competitive markets and smaller firms in competitive industries. The Korean case discussed in this article provides confirmatory evidence for this view: Specifically, the audiovisual market, characterized by large oligopolistic firms, witnessed the emergence of OTT under the control of traditional video content providers, and OTT deployment tended to strengthen the market positions of traditional players. In contrast, the emergence of Netflix as a third-party OTT video provider challenged traditional broadcasters in the United States.

Several reasons might be cited for this phenomenon. First, reinforcing the oligopolistic nature of the Korean market, terrestrial broadcasting content continues to be popular in the country, although it has gradually decreased over the years because of growth in the pay TV market: The three primary terrestrial broadcasters recorded 20.1% in combined ratings, and pay TV channels 16.9% in 2015 (KCC, 2016). Even on OTTs, Korean audiences continue to be loyal to broadcast content: An international consumer survey of online video viewing habits in France, Germany, India, the Philippines, Singapore, South Korea, the United Kingdom, and the United States found that South Koreans preferred TV shows to movies, unlike most countries, where movies were the most viewed content (Limelight Networks, 2017).

A second factor is that cable prices are comparatively lower in South Korea than elsewhere in the world, reducing the incentives for cord-cutting and cord-shaving. Compared with a "cable TV only" price of above \$100 in the United States, for example (Pressman, 2016), Koreans pay a monthly average of only about \$47 for bundled packages that include Internet, TV, and landline phone; \$20 for "Internet only"; and as little as \$10 for "pay TV only" service (KISDI, 2016b).

For these reasons, OTT has been offered as an inexpensive addition to the main service pack rather than as a substitute for the traditional pay TV service. Although users are likely to consider OTT as a similar service to pay TV, it is not yet considered a substitute for pay TV (KISDI, 2014). Thus, in South Korea, the advent of OTT video has not triggered a process of Schumpeterian market disruption/creative destruction—a period in which radical innovations and new technological combinations destroy "old" economic structures and create "new" ones, as Schumpeter suggested (Schumpeter, 1942; cited in Evens, 2013).

Schumpeterian creative destruction is more evident in the Netflix case, where dominant commercial broadcasters potentially perceived the threat from OTT TV but were unable to change their business models. As Acs and Audretsch (1987) have argued, the more competitive U.S. market may have generated fewer surpluses that could have been invested to confront OTTs, or given more allowance to experiment with new business models. Korea's public-television-dominant oligopolistic broadcast model might have given its providers greater freedom to experiment.



The role of finance and financial institutions (Schumpeter's fourth factor) may also be examined. Two factors contributed to the continued dominance of the traditional video content providers: greater access to investible financial resources, and the nature of financial incentives Korea's public service dominated the broadcast system. First, as shown, broadcasters' content continued to be popular in Korea for much longer, and traditional content providers did not witness the erosion of broadcast market shares that characterized most other markets. The most attractive and popular content in Korea was broadcast programming and shows, which the established broadcasters were able to control more effectively. Retransmission of broadcast content (terrestrial and cable networks) has been most popular in Korean OTT. "Real-time broadcasting" and "Replay on the go" have been widespread due to a couple of factors: First, some OTT services are deployed by existing traditional television providers as part of their multiscreen strategies, and second, the urban culture of high smartphone use creates a large installed base of mobile handsets that makes mobile streaming an attractive proposition for broadcasters. Korean traditional content providers, therefore, had greater investible internal resources than providers in other countries. Thus, OTT services in Korea became an extension of established players' offerings and part of their N-screen strategy, further entrenching their market position. In the United States, by contrast, services such as Netflix had gained a significant market share of viewership and scale economies before the traditional audiovisual providers woke up to the threat.

Despite the popularity of their own content, South Korean telecom players have been actively collaborating with content providers (KT Olleh TV + POOQ). More diverse suppliers of video programs naturally led to growing importance of content, and content differentiation and development of exclusive content on each platform are growing in importance. Thus, building solid partnerships with companies that own complementary resources is considered to create a competitive advantage in this broadband television environment. Thus, such strategic alliances seem inevitable to share distinctive resources and competencies (Liu & Chan-Olmsted, 2003). Heightened competition for platform leadership—competition and collaboration on multiple fronts—has stimulated the development of OTT and associated devices.

The second economic factor is the nature of financial incentives. In Korea, public broadcasters have less incentive to avoid or oppose disruptive innovations because their business models do not involve the profit motive to the same extent as the commercial broadcasters that were Netflix's primary competitors. The United States is dominated by commercial broadcasters, whereas Japan and Korea still have dominant public broadcasters. The "public service" mandate might be interpreted as a call to serve audiences where they exist (if audiences are going online, public broadcasters might follow them there).

In effect, South Korean public TV broadcasters were "platform agnostic," preferring to preserve their audience shares, whatever the consequences for revenue and profits (E.-A. Park, 2017). This allowed them to defend their audience share against new entrants, whereas in the United States, the broadcasters' stubborn defense of their platform was ultimately counterproductive. In the Schumpeterian model, established firms tend to avoid disruptive innovations, or actively oppose them. They tend not to change business models, even when the business models face threats. Paradoxically, Korean traditional broadcasters' less commercial orientation enabled them to avoid this trap: They embraced the new OTT technology, which in the long term enabled them to stave off competition from emergent players.

As a result of the combined impact of these factors, the early innovations in OTT services in the South Korean market came from established media and telecom companies. In other countries where audience losses for traditional broadcasters were slower to manifest, established players did not deploy OTT services early enough, leaving the space open to upstart providers such as Netflix. The Korean case suggests some responses from traditional audiovisual providers facing competition from OTT services. Korean traditional broadcasters were able to successfully incorporate OTT into their business models—at least to date—because they creatively, dynamically, and proactively deployed their own offerings in a way that did not cannibalize their existing content offerings, but extended them to new platforms. Paradoxically, facing a threat from new media earlier than in other countries seems to have helped Korean broadcasters in the long run. Whether broadcasters in other countries can emulate the Korean strategies remains to be seen.

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