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A Case Study on Korea Telecom Skylife's (KTS's) Business Model Innovation—Based on the Business Model Framework (BMF)

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The aim of this paper is to assess business performances of a satellite TV—Korea Telecom Skylife (KTS)—to innovate its business model related to current technical events such as hybrid platform, digital conversion, and Internet connected TV. For this, a theoretical logic is approached what levels of business model innovations there are, based on the “business model framework (BMF)” theory by Henry Chesbrough. Based on this theoretical backdrop, this study focuses on KTS's approach to utilize technical events to develop its business model and contribute to the company's earnings and operating cost expenditure. In conclusion, it will show the feasibility and the limitation to upgrade this firm's business model innovation in the smart media business ecosystem based on the last technical event, Internet connected TV.

Keywords: business model innovation, satellite TV, hybrid platform, digitalization, interactive TV

Introduction

Business leaders in pay TV industry should critically reexamine their business models and consider more comprehensive strategies to reflect changed industrial and technological environment such as market saturation, cord-cutting events, content portability, and borderless competition. In Korean, TV market, the industry competition to lure subscribers in the pay TV market is getting increasingly fierce compared to last few years. However, Korea Telecom Skylife's (KTS's) subscriber trend demonstrates the firm has one of the most superior sales and service capabilities in the industry.

With regards to the Internet connected TV event, KTS launched its smart pack service for subscriber retention. In terms of the hybrid platform, the most recent positive signal of technical event is that the Ministry of Science, ICT, and Future Planning is reportedly considering approving the introduction of dish convergence solutions through special act. Especially, the penetration is expected to rise on accelerating digital conversion on analog cable TV subscribers.

The aim of this paper is to assess the performances of KTS's business models related to the main technical events like hybrid platform, digital conversion, and Internet connected TV. For this, a theoretical logic is approached what levels of business model innovations there are in the business world, based on the “business model framework (BMF)” theory by Henry Chesbrough. Based on this theoretical backdrop, this study investigates KTS's strategy and actions to utilize main three technical events above mentioned, in order to

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develop its business model and contribute to the company's earnings and operating cost expenditure.

Research Background, Questions, and Methods

Theoretical Background

Today's platform competition goes beyond single networks and becomes a battle between the service domains, meaning the focus has changed from the network based to the UX based business model innovation. In this market, the competitiveness is more complicated in the whole value chain of media industry. Moreover, the service provided to the end user is determined by the effectiveness and efficiency of the technologies and also the cooperation of all related companies in the value chain.

The theoretical and empirical evidence of industry life cycles indicates that shake-out stage is a common phenomenon in the evolution of media industry (Hogenbirk & Kranenburg, 2006). Nowadays, new theories have been proposed to explain the extent of shake-out stage. One of them emphasized the role of precipitating events, like technological changes (Jovanovic & MacDonald, 1994). The new technology can offer low unit costs at a higher level of output. Firms that are able to implement the new large-scale technology can increase their output and produce efficiently. As a result, the exit rate rises sharply until the less efficient firms are forced out of the market.

Another group interprets shake-outs as part of a gradual evolutionary process (Klepper, 1996; Klepper & Graddy, 1990). These evolutionary theorists emphasized the differences in firm's innovative capabilities and the importance of firm size in appropriating the return from innovation to explain how entry, exit, growth, and market structure evolve over the life cycle of an industry. Innovations can be related to products or process. The majority of product innovations are introduced in the expanding phase of the industry life cycle by all firms, whereas process innovations, occurring in latter phases, are more likely to originate from large size firms.

Over the industry life cycle, the increase in competition forces firms to become more price and cost conscious, and as a consequence, the innovative activities of firms gradually shift from product to process innovations. Process innovations increase the firm's optimal scale and reduce production costs. The technological improvement compresses the profit of the less efficient firms. In general, the smaller firms, who are not able to imitate the new innovation, exit, generating the shake-out (Cohen & Klepper, 1996).

The premise that nature of business models must be dynamic, as the current level of competition puts pressure to shift from sales market to customer market (Vonderembse, Uppal, Huang, & Dismukes, 2006), a response to a changing market environment, requires shifting from legacy to new innovative business models. In practice, companies have opted to use some levels of business model innovations as alternative approach. It is strategic change from product innovation to process innovation.

In this environment, a model of BMF initiated by Henry Chesbrough has been chosen to assess the KTS's business performance. It refers to a theory that sequences possible business models from very basic to far more advanced models. According to him, by using this BMF, companies can assess where their current business model stands in relation to its potential and then can define appropriate next steps for the further advancement of that model with regards to the environmental factors like the technology, regulation, etc.. He introduced six types of business model innovation based on the sequence from the basic to the advanced (Chesbrough, 2007, pp. 13-15).

The type one refers to "undifferentiated business model" from other companies in the same market. It means, in the most cases of the static market, the vast majority of companies does not articulate a distinct

business model. They usually compete on price and availability, and serve customers who buy on those criteria. Those utilizing the type one business model are selling commodities, and are doing so in ways that are not different from many other firms. They often are caught in the “commodity trap”.

The type two refers to “differentiated business model”. Those companies using the this type have created some degree of differentiation in its products or services. This differentiation can lead to a different business model allowing the company to target a customer other than those that buy simply upon price and availability. This allows them to serve a different and less congested market segment from that served by its type one counterpart. They may lack the resources and staying power to invest in the supporting innovations to sustain its differentiated position. This gives rise to the pattern of so-called “one hit wonders”, where a company has a successful first product, but is unable to follow up this success with additional products of similar success. Many technology startup companies fall into this type.

The type three refers to “segmented business model”. The company can compete in different segments simultaneously. Then, more of the market is served and more profit is extracted from the market as well. The price sensitive segment provides the volume base for high volume, low cost production. The performance segment supplies high margins for the business. The firm's business model is more distinctive and profitable, which supports its ability to plan for its future via technology roadmaps. While its greater level of planning helps the type three firm avert the one-hit wonder syndrome, problems still remain. The type three firm remains vulnerable to any major new technical shift beyond the scope of their current business and innovation activities, and also to major shifts in the market. A mature, vertically integrated industrial company could be an example of this kind.

The type four refers to “externally aware business model”. In this, the company starts to open itself to external ideas and technologies in the development and execution of its business. This unlocks a significantly greater set of resources available to such a company. The roadmaps of the type four firm provide a shopping list of needs within the firm for external ideas and technologies. Relationships with outsiders help identify external projects that fulfill some of these needs. This reduces the cost of serving the business, reduces the time it takes to get new offerings to market, and shares the risks of new products and processes with external parties. Internal roadmaps are shared with suppliers and customers on a frequent basis. It enables the firm to make much more systematic use of innovative ideas and technologies from suppliers and customers. It allows them to plan their own activities in concert with the innovative activities of the type four firm. Companies that make it a practice to share real-time information with their suppliers exemplifying this approach.

The type five refers to “integrated business model”. In this, the company's business model plays a key integrative role within the company. Suppliers and customers enjoy formalized institutional access to type five firm's innovation process, and this access is reciprocated by the suppliers and customers. They share their own roadmaps with the type five firm, giving this much better visibility into the customers' future requirements. This type takes the time to understand the supply chain all the way back to the basic raw materials, as it looks for technical shifts. This type invests substantial resources to study “the customer's customer” to learn about the deeper unmet needs. Some experimentation is conducted on alternative distribution channels. Companies that are moving from offering products to offering services, and are bringing in external technologies to support this new approach are examples of the type five models.

The type six refers to “platform leadership business model”. It is a more open and adaptive model than

type five. This ability requires a commitment to experimentation with more business model variants. This experimentation can take a number of different forms. Some companies utilize corporate venture capital as a means to explore business models in small startup companies. Some utilize spin-offs and joint ventures as means to commercialize technologies outside of their own business model. Some have created internal incubators to cultivate promising ideas that are not yet ready for high volume commercialization.

In this type six firms, key suppliers and customers become business partners, entering into relationships in which both technical and business risk may be shared. The business models of suppliers are integrated into the planning processes of the type six company. The company in turn has integrated its business model into the business model of its key customers. Intel, Microsoft, and Wal-Mart have been good examples in the past. One important capability that enables this integration of business models throughout a value chain is the ability of the company to establish its technologies as the basis for a platform of innovation for that value chain. In this way, the company can attract other companies to invest their resources, expanding the value of the platform without consuming extra investment by the platform maker.

Research Questions and Methodology

In most countries, satellite TVs may strive to redefine their own paths because of the technical limitation, but not in isolation especially subject to main technical events such as hybrid platform, digital conversion, and Internet connected TV. The TV evolutions in market and technology conditions are promoting changes and disruptive innovations that significantly affect the future competitiveness for TV operators. In fact, satellite TV operators have more limitations than cable TV or IPTV competitors, in terms of the available technologies. The above mentioned technical events are favorable to satellite TV operators to develop their business models.

The first technical event is the hybrid platform for the delivery of limited linear TV that has been accepted by ITU-T in 2008, and it is favorable to off-air TV delivery network based companies like satellite TV and terrestrial TV to enable the users' hybrid device to receive the broadcast signal from the broadcaster, e.g., via digital satellite TV. This will be further combined with on-demand content delivered over the network.

The second big technical event is terrestrial TV's digital conversion. In case of the US, this switch to digital offered the satellite TV an additional technical opportunity to widen its customer base. In fact, the US cable TV operators have been losing their market share as analog subscribers switch to digital, whereas IPTV and satellite TVs have been gaining ground. As of 2010, satellite TVs in the US have hold roughly 30% to 40% of the market and the cable operators' share at about 70% should continue to shrink.

The last technical event is connected TV manufacturing. TV operators are moving to enter into partnering with connected TV manufacturers like Samsung Electronics (SS), LG Electronics (LG), and so on. For instance, Comcast, Time Warner Cable (TWC), and DirecTV are trying to contract with SS to enable device access to pay TV content via a common UI on the Internet. Especially, the aggressive expansion of online entertainment platforms into pay TV spaces shows that satellite TV operators should recognize the need to work with TV manufacturers or Operation System operators like Google, on the development of next generation enhancements. These include multi-device access, the blending of web and TV content, advanced search/discovery, and delivery of content through application store environments.

The most pay TV operators still are worry about the collaboration with other players which would dilute their conventional service revenues and margins. In the long term, TV operators need to consider adapting

organically to changes in the competitive landscape by evolving their business models and service capabilities. A change in pay TV operators' DNA will be necessary for them to remain competitive in certain areas, as the focus for differentiation shifts towards optimizing user experience (UX) in connected, cross-platform, multi-device environment.

KTS firstly served as a guideline to better understanding hybrid networks and user practices with technological changes of hybrid platform and digital conversion. As mentioned above, the hybrid platform has been accepted by ITU-T and it helps KTS increase user practices, whilst eliminating expensive duplication in network infrastructure investment since adapting the hybrid business model. Regarding digital conversion, the analog broadcasting is supposed to end on December 31, 2012 with all terrestrial broadcasting converting to digital in Korea. Moreover, KTS initiated a new set-top-box for Internet connected TV named as "smart pack" with additional \$1 monthly fee from May, 2013.

The hybrid platform adaptation, proactive marketing activities using digitalization period, and making joint venture to work with non-TV operators are kinds of business model innovation activities within the BMF. In Korea, the competition across TV industry is fierce. Recently, it has been evaluated, as the best positioned to enjoy the fruits of technological changes like hybrid IPTV platform and further expected to utilize the emerging technical opportunities like digitalization and smart media efforts, because KTS has Korea Telecom as its parent company. In fact, after adopting the hybrid platform, KTS has been perceived to be superior to cable TV or competitors' IPTV platforms.

It is expected that KTS would use the digitalization opportunity. Its Olleh TV Skylife (OTS) (a bundled package from KT IPTV and satellite TV), which offers both digital satellite TV and IPTV, OllehTV has appeared attractive with the largest TV programming, biggest VOD library, and high picture quality since September 2009 and its number of subscribers skyrocketed to 1.1mn (among them, 0.2mn IPTV VOD only) at the end of 2011 (Song, 2011). For assessing the KTS's business performance after the business model innovation, three research questions are generated as follows:

Question I. What performances are accomplished after KTS's adoption of hybrid platform based on the BMF model?

Question II. What performances are accomplished after KTS's effort to use the digitalization chance based on the BMF model?

Question III. What performances are accomplished after KTS's change of Internet connected STB based on the BMF model?

The BMF initiated by Chesbrough (2007) is selected to analyze KTS's business innovation activities and three technical shifts, hybrid platform, digital conversion and Internet connected TV has been selected after data searching of financial information, company data, and media trend reports, press releases, analysis reports by domestic research institutions like FnGuide, Atlas, Strabase, Korea Information Society Development Institute (KISDI), and also foreign research papers like IDC, OVUM, Gartner and so on. For selecting the theoretical background, the papers of management schools like Harvard, MIT, and Stanford have been searched and some regional interviews have been done.

This paper's primary value is that it is an independent analysis of the emerging pay TV operator's competitive situation thanks to a coalition with the telecom company, KT offering IPTV service. Furthermore, this case study provides a unique sequence view of several kinds of the business model innovation from basic, not actually differentiated to more valuable business models in the recent business ecosystem.

Research Findings

Assessment of KTS's Performance After Business Model Innovation of Hybrid Platform

The hybrid technology adoption is based on the feasibilities requiring new kind of competition and business strategies. With regards to the BMF, type three can serve multiple market segments by adopting the technological favor like hybrid platform. Even if the firm is still internally focused, the extended market means more profit with relative low cost. Furthermore, the type three is more distinctive because it supports the firm's capability to plan for its future via technology roadmap. KTS needs to think about how to sustain and upgrade its business model. Before adopting hybrid platform, KTS struggled against subscriber stagnation (1.5 million subscribers) and cost increase due to the oversaturated pay TV market. Even in fierce competition, this couldn't offer real interactive services because of technological limitation of no return path network.

The adoption of hybrid platform with KT's IPTV is firstly assessed to take type two, "differentiation", because KTS lacks the return-path resource and the KT-KTS coalition make KTS technological upgrade by creating some degree of differentiation in its set top box (STB) and service as well with bundling package with broadband and VoIP services (Song, 2011). In fact, KTS lacked network resources and staying power to invest in technological innovations to sustain its differentiated position. It was doubtful that KTS could follow up this upgrade with additional products of similar success. That means, it gives rise to the pattern of "one hit wonders". With this dilemma, it is hard for KTS to sustain the benefits of type two business model, even if the type two company can serve a less congested market segment from that served by its type one counterpart company. It allows the type two company to target a customer other than those that buy simply upon price and availability.

In joint marketing with KT, KTS can extend to serve more of market, more of subscriber, by adopting type three, "segmented business model". Especially, the pay TV price sensitive segment provides the volume base for high volume, low cost. The performance segment can supply high margins and this business model is more profitable, which supports the firm's ability to plan for its future via technology roadmaps (Song, 2011). Its greater level of planning helps type three firm avert the one-hit wonder. With the coalition, KT and KTS can enjoy not only the largest pay TV market share, but also more profit from the extended market. Thanks to the success of hybrid platform, KTS went public on June 2011, since the joint marketing with KT could reduce per-subscriber acquisition costs (SAC). KT-KTS has been a new powerful player in the pay TV market after adopting hybrid platform. The number of coalition's subscribers stood at 4.98mn, amounted to 23% of 21.34mn pay TV subscribers in the third quarter (Q) 2011. Before it, KTS's standalone service had difficulty attracting new subscribers. Along with KT, in 4th Q 2009, they introduced OllehTVSkyLife (OTS). KTS's subscribers have grown to 3.19mn in 3rd Q 2011. If combined, they enjoyed the largest market share in the pay TV market (Song, 2011). Even KTS boasts the third largest subscriber number, following CJ HelloVision and T-broad.

The OTS subscriber growth has significantly contributed to KTS's earnings. In fact, the Satellite-Only's average revenue per user (ARPU) is KRW9,400, while OTS's ARPU is KRW8,000, about 15% less than Satellite-Only. However, OTS' break-even point (BEP) is 5.5 months in comparison to the BEP of 9.4 months at the Satellite-Only, thanks to the marketing expense savings in joint marketing with KT. The OTS has been enjoying earning contribution such as shorter time to BEP, KT's broadband subscriber growth as synergy, revenue expansion, net subscriber market share growth, and lower cancellations, and so on (Song, 2011). By

adopting the types two and three of BMF, KTS can secure KT's strong network, brand power, distribution channels, and interactive services such as VOD (Video on Demand). After adapting hybrid platform technology and market expansion in cooperation with IPTV, there are three main performances and synergy with KT as follows:

Subscriber growth functioning as total revenue driver. KTS generated the largest portion of its revenues from subscriptions. In 2011, 70% of total revenues were attributable to monthly subscriptions. The subscriber growth is the primary revenue growth driver. The bundled products (including broadband and telephone services) are priced at KRW32,000~40,000 per month (3-year contract), based on the number of available channels. Although the ARPU for bundled products has been less than that of Satellite-Only, this has been sufficiently offset by subscriber growth. It is worth noting that KT shares the SAC (Subscriber acquisition cost) and investment costs related to the STB. As of April 2013, KTS's number of subscribers totaled 3.9mn.

Increased advertising rate and home shopping commissions as key profit drivers. Advertising sales should post steady growth with the increase in the number of subscribers raising advertising effectiveness. The advertising rates and home shopping commissions of KTS used to accounting for a small portion of total home shopping revenues from subscribers before the subscriber increase. Per-person advertising profits averaged KRW8,440 for cable TV operators (top six companies, based on 2009 earnings), nearly 40% higher than KTS's KRW5,900 (based on 2010 earnings). In 2011, home shopping revenue per subscriber per month came in at less than KRW10,000, below those of cable TV operators (KRW25,000 per subscriber per month) in comparison to the number of subscribers. However, those are expected to increase in line with subscriber growth. The number of subscribers is the key factor for home shopping channel commissions. According to finance research firm, Daishin Securities (March, 2012), it means KTS's home shopping commission income has room to rise to W100bn to match one-fifth of the Cable TV industry's home shopping commission income. In 2012, KTS has finished commission negotiation with five of the six home shopping PPs over new commission levels. With this increased market influence based on the expanding subscriber base, KTS's home shopping commission is expected to reach KRW50bn in 2012, outpacing 58% commission income growth of previous year. The firm is still negotiating commission fees with homeshopping channels which are the largest contribution to platform revenue.

Increased sales volume as less cost and more margin driver. Once the company achieves "economies of scale" through subscriber growth, expense declines, leading to margin improvement. The expenses of KTS include program usage fees (PUFs), marketing expenses, depreciation, satellite rental, and STB installation costs. Thanks to partnering with KT, KTS has an edge in expense control. Satellite rental costs are fixed, but installation costs display growth in line with robust subscriber growth. The total PUFs as a percentage of total revenues are 38.5% in 2011 and as KTS achieves economies of scale through subscriber growth, this percentage is declining. According to KDB Daewoo Securities (February, 2012), total PUF-related expenses increased to KRW128.8bn in 2012 and KRW134.7bn in 2013, in comparison to KRW125.6bn in 2011. In fact, the operating margin has been improved from 9% in 2011 to 12.3% in 2012. The marketing expenses were KRW59bn in 2011, 12.7% of revenues and would be lower because KTS can better control sales commissions and promotion cost per new subscriber. In fact, KTS spent KRW84,603 on sales commissions, KRW28,251 on promotions in 2010 to acquire each new subscriber, but these figures have dropped to KRW63,452 and KRW17,233 at the end of 2011. Marketing expenses came in at W59.0bn at the end 2011, equivalent to 12.7% of overall revenues. It is expected by KDB Daewoo Securities (February, 2012) that marketing expenses at

W78.4bn (14.2% of revenues) in 2012.

Assessment of KTS's Performance After Business Model Innovation of Digital Conversion

After adopting the hybrid platform technology, KTS has still remained vulnerable to other technical changes like digitalization. The number of digital pay TV subscriber households among pay TV subscribers increased 1.95mn in 2011. Of the 1.95mn, KTS's subscribers accounted for 22%, which surpasses the company's 15% share in the pay TV market. The satellite TV operators accepting the hybrid model have enjoyed "more market share, more profit, and more customer loyalty" with enhanced UX. However, new technical trend, digitalization is a chance again for the pay TV operators to innovate their business models.

In terms of digital conversion, analog terrestrial broadcasting ended at the end of 2012 with all terrestrial broadcasting converting to digital. As of 2Q 2011, 10.2mn households received digital broadcasting, putting digital broadcasting's penetration rate at 47.8%. KTS is 100% digital with digital pay TV subscribers comprising 30.1% of its customers. KT and KTS have together 46.1% digital pay TV market share. KTS had a big opportunity in the digital conversion period, because it started out as a high-quality digital broadcaster, and most of this company's necessary digital broadcasting related investments are believed to have been completed. According to company interview (January, 2012), KTS needs to spend only around KRW10bn per year for digitalization. Meanwhile, cable TV operators are currently bearing massive cost burdens related to digitalization. It is estimated at around KRW300bn per year, 30 times more than this of KTS. Within the year of 2012, the remaining 11mn analog cable TV subscribers had to switch to digital terrestrial TV. Therefore, cable TV operators have very aggressively gone after new subscribers, while trying to retain existing subscribers in 2012, with the end of analog terrestrial broadcasting.

KTS can out rival cable TV competitors in further subscriber acquisition, in terms of price, content and quality of digital TV offerings like High Definition (HD) and 3D. KTS already has the strength in digital content based on the largest number of HD channels available among the domestic digital TV service providers. In regards to the business model innovation in medium-to-long term, the first next important growth driver based on the first fast-growing customer base due to hybrid STB, is the preemptive investment to the master antenna facility for multiplex housing like apartments to accelerate the switch to digital and its customer base increase.

From 2013, terrestrial analog broadcasting has been entirely replaced by digital broadcasting in Korea. It means that the only households critically impacted by this switch to digital broadcasting would be those receiving free terrestrial broadcasting services through an analog receiver. Nevertheless, the switch to digital means also to create a strong drive for households watching analog TV on digital receivers to switch to digital TV. Market penetration of digital receivers in Korea has reached 64% nation-wide and above 70% in the Seoul metropolitan area as of June, 2011. That is, roughly half of all analog cable TV subscribers are watching analog cable TV on digital receivers at present.

At the moment, the problem is that with digital TV requiring a STB for each household, all households need to sign separate contracts for the services. Then, especially it is really difficult for satellite TV operator to enter into the collective agreements because in most multiplex housing like apartments, the collective agreement for analog cable TV service is usual. If it were possible to make digital conversion to separate contracts, KTS would post high subscription rates for its OTS based on the company's accessibility to KT's substantial broadband subscriber base as well as the product's attractive premium HD content and price. In this

market situation, KTS considered also the type two, three, and four of BMF. There are two main fundamental drivers for KTS's business model innovation and its good performances utilizing digitalization are as follows:

Collective agreement via Intermediate Frequency investment. The further subscriber growth of KTS can be driven by the penetrating into multiplex housing with collective agreement. This helps the company secure more subscribers during switching to digital broadcasting. Penetration into multiplex housing units jumped to 7.7% in 2010 and continued to grow, with the coalition's co-investment in "Intermediate Frequency (IF)" equipment for multiplex housing. KTS has planned to offer free installation IF equipment for multiplexes where more than 30% of the inhabitants subscribe to its services in 2012. Meanwhile, the revisions made to 2007 regulations regarding the installation of master antenna for common use (MATV) allow brand new multiplex housing to receive satellite and terrestrial digital TV through common receivers, thus eliminating the need for separate equipment. This revision further helps KTS as it seeks to secure subscribers in multiplex housing.

Digital content investment such as HD, 3D quality. The driver to use the termination of analog broadcasting is the bargaining power dealing with the digital content like HD, 3D quality. Not the digital transmission, but the HD broadcasting means "true digital". It is the type two, "differentiated business model", because KTS has the best HD quality. But the broadcasting quality is not the fundamental innovation factor to sustain subscribers. There are some driving factors to overcome the limitation of the technology upgrade. Firstly, sustaining the reputation of the HD offerings is important. The digital broadcasting means Standard Definition (SD). HD broadcasting provides a 5x higher resolution than analog and a 3x higher resolution than DVD (SD digital). Currently, Satellite-Only of KTS offers mostly HD channels among pay TV operators with 91 (58% of its 160 channels available in HD). Therefore, KTS is the closest thing to the government's vision of HD quality digital broadcasting with KTS's average percentage of 60%. Secondly, preemptive investment in 3D channels is important. KTS operates two 3D channels, real time 3D channel Sky3D and 3D movie channel SkyChoice. KTS's 3D content has been offered for 150 hours by 2012, increased from 80 hours in 2011. It is the country's only TV carrier that provides 24 hour 3D channels. 3D channels are important because 3D broadcasting is part of the future of TV and the government is heavily promoting 3D broadcasting as one of smart TV projects of KCC (Korea Communication Commission). KTS stands to benefit the most. Thirdly, co-marketing with 3DTV vendors is an option (type three of BMF). It makes KTS also "more profit, more volume, lower cost" like Hybrid STB platform and helps it to overcome "domestic market focused" dilemma and expand to global market in new relationships with non-traditional players like CEs (Consumer Electronics). Lastly, the most important thing is collaboration with HD/3D content production companies. As the premium content owners become more powerful with alternative distribution channels, the service differentiation is more difficult to maintain. To offset the homogeneity of TV offerings, KTS should adapt its portfolio through creative packaging and quality initiatives. In type four of BMF, external sources could routinely utilize to fuel the main HD and 3D channel offerings of KTS and it could allow internal ideas for channel packaging to flow outside to production companies' value creation. KTS should be a system integrator of internal knowhow and external content, in order to accommodate consumers' increasingly fragmented preferences.

Assessment of KTS's Performance After Business Model Innovation of Internet Connected TV

In Korean pay TV market with very low subscription fees, it is still expected that the conventional pay TV STBs remains the primary way to deliver TV services to the household and it is unlikely to change last few years even though the connected TV is a big event since SS launched Smart TV. However, OTT (Over-the-top)

delivery is growing at a significantly faster than expected rate especially in North America and Europe. Therefore, it is assumed that new hybrid STB with Internet connection like an alliance case of Google TV and Dish Network would take a large share of the consumer market for delivery of OTT content to households with compatible broadband connections like WiFi (Wireless Fidelity).

KTS also should think of business model innovation like “being partner” with an increasingly broad range of players such as CEs like SS, global OS platforms like Google. The recent key word is “partnership”, which requires the type four of BMF, because the “partnership” is correlated to being “open to external ideas and technologies in the business development”. Adapting to the changes in the TV market requires operators to open themselves up to a wider set of relationships with non-traditional players.

The KTS's platform competitive advantage is firming along with a wider customer base. It has firstly accelerated efforts to attract subscribers for OTS, a bundled service of IPTV, satellite TV, broadband and VoIP, backed by the strong digital channel competitiveness like HD, 3D quality and joint marketing with KT. In platform sales, advertising revenue is supposed to surge on the cooperation with KT. Home shopping transmission revenue jumped 64% YoY in 2013 according to Korea Investment and Securities (May, 2013).

With regards to Internet connected TV, Skylife began to offer “Smart pack” based on Android OS with additional KRW1,000 fee and to offer a cloud-based personal video recorder (PVR), satellite on demand service for Satellite-Only subscribers in the second half of 2013 to raise ARPU and strengthen product competitiveness. KTS utilized the connected TV earlier than cable TV and IPTV. Meanwhile, cable TV operators like C&M, CJ HelloVision, and Tbroad also announced to take the hybrid STB based on Android OS from the 2nd Half of 2013 and one of IPTV player, LGU+ has launched “LGU+TVG (IPTV+Google TV)” in cooperation with Google from October, 2012. Therefore, the performance of KTS with Internet TV service “Smart pack” can't be assessed yet and the growth of its subscribers would depend on the coalition with KT.

Conclusions

In summary, the bottom line of the business model innovation, “hybrid platform” is “more subscribers and better profitability” for KTS (see Figure 1). This paper selected main activities such as hybrid STB, IF, HD/3D channel offering, and smart package based on the favorable technological events like hybrid platform, digital conversion, and Internet connected TV.

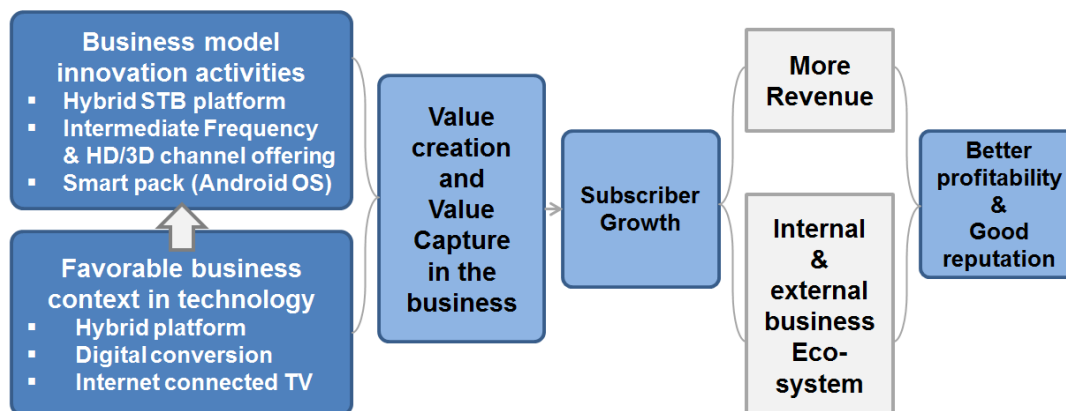


Figure 1. Outcome of business model innovation: “More subscribers and better profitability”.

With this study, it is known that business model innovation is a mix of one and another with the method of collaboration to beat the same enemy. This mix is related to the internal products and process within the same corporate governance. The business activities of KTS are hybrid STB, IF, 3D content and smart package. Thanks to OTS, KTS changed the pay TV market structure. It is expected to use its strong competitive edge, the customer value to take analog cable TV subscribers. It is also helpful to take a collaboration model to extend the scope of consumers, even though the counterpart could be the direct competitor in near future. The case is HD/3D channel offering via 3D TV. The reason is very rational. Korean conventional pay TV market is saturated with penetration rate of 125% as of 2011 and it could be cord-cut by new emerging operators like global OTT or smart TV operators. All circumstances imply that the growth potential of related services is somewhat limited.

It is emphasized that the favorable business contexts are coming from the conversion of analog to digital TV services, but along with this transition, HD and 3D content means real digitalization. Major content providers like SBS, MBC are demanding price increase. A collaboration model with HD and 3D production companies can be alternatives to offset the bargaining power from the price increases. The collaboration model is less risky than acquisition of the production company. However, a kind of acquisition is another option in the long term. For instance, in 2011, Comcast showed a strategic stance by acquiring NBC Universal.

Thanks to the first business model innovation, hybrid platform, KTS has remarkable market performance and operating synergy with the parent company, KT. Then, KTS could be well-positioned to be leading the pay TV market. It has the growth potential in home shopping commissions and advertising rates, backed by the steady increase in its total subscriber base. As a result, its total subscriber has been reached to 3.9mn by April, 2013 and providing a sufficient subscriber base for home shopping and advertising. Moreover, it can not only improve sales, but also decrease the cost. It can save on advertising and marketing. It can also share the SAC with KT. As a result, KTS can better control sales commissions and promotion costs per new subscriber. The company also completed its investment in digital broadcast equipment in 2010 and the eased burden is set to bolster profitability.

During digital conversion of terrestrial TV, it has been expected that a considerable number would migrate between platforms, when analog viewers start switching to digital services. KTS already made preemptive IF facility investment for multiplex housing to accelerate the switch to digital. On the basis of stabilized subscriber number, it has more room to sharpen its own competitive edge of HD/3D capacity and offerings when it comes to channel and content choices.

In terms of connected TV, this paper has a limitation to investigate the performance of KTS's connected STB, because it has been launched since midterm of 2013. In fact, telco's IPTV services displayed the fastest subscriber growth and there are some factors contributed to this strong growth. First one is consumers' preferences for digital features like VOD rather than live TV schedule thanks to the multi-smart devices environment (N-screen). KT also recently focuses on sales of stand-alone IPTV, rather than OTS just after spin-off of the unit, Olleh TV. Moreover, IPTV and cable TV also thrive to take the hybrid platform with Internet connection enabling OS like android OS.

It is concluded that the hybrid platform, digital transition, and connected TV based on Android OS have brought about fundamental change of KTS performance and are expected to gradually increase the market share of this company at least in the near and medium term. The fundamental rule in pay TV industry is, subscriber growth is the first biggest factor determining value of pay TV and the best example of this is KTS.

Once a subscriber base becomes large enough to enable to achieve economies of scale, profit margins tend to trend up. Especially the digital conversion presented competitive pay TV operators with opportunities to expand their subscriber base more positively. As of end 2012, IPTV operators accounted for 26% of pay TV subscribers, and also 15% for satellite TV operators. Moreover, pay TV operators attaining a critical number of subscribers can prop up their profit margin via ancillary revenue sources such as home shopping, advertisements, VOD, etc..

In that sense, major cable system operator (SO), CJ HelloVision and Tbroad are supposed to make efforts to acquire smaller SOs, to be in the process of converting to digital broadcasting, and also to adapt the new TV environment of Internet connection. Therefore, further investigation is needed from a more long-term perspective considering the impact of regulations. The recent themes for pay TV industry to long term are still the digital transition (It takes usually 10 years) and deregulation. These should be considered for long-term viewed research.

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