ABSTRACT

This paper presents analysis on CSPs (Communication Service Providers) current business situation with potential opportunities and threats from OTT (Over The Top) players and initial assessment on CSPs’ possibilities to implement two-sided markets model using literature review of both academic journals and business reports. There are quite some contrasts between two-sided markets model and its opposite value chain model and it will be interesting to discuss why and how OTT Players can successfully implement two-sided markets model while CSPs are not successful in adopting this model. However, given the extraordinary growth of OTT business which also affects CSPs’ revenue, CSPs should really consider the possibilities of implementing two-sided markets model and seek some opportunities for their future businesses by using it as a new paradigm. The opportunities to gain business success from two-sided markets model implementation are still open for CSPs but the challenges are also huge due to the risks of losing current revenue streams. To embrace OTT services, CSPs are facing three prominent options: acquisition, partnership or creating the business.

KEYWORDS—Two-sided markets model, Communication Service Providers (CSP), Over The Top Players (OTT Players)

I. INTRODUCTION

Recent development of Internet and applications have put Communication Service Providers (CSP) under serious threats from Over-The-Top (OTT) players. CSPs are experiencing a totally new business game with the existence of OTT Players. According to Gartner Report (Dewnarain, 2014), the presence of OTT Players is causing CSPs to suffer three pressures:

1. Revenue decline by substituting CSPs’ core services with Internet Protocol (IP) alternatives.

2. Increase the load on the network without proportional increase of revenue from data connection, which means CSPs have to increase their network capacity but there is no guarantee that they will earn incremental revenue proportionally.

3. Losing current and future CSPs’ consumer mind share because users will pay more attention to the applications they are using instead of the CSPs which provide the connectivity.

In addition to those three pressures, particular OTT Player such as Google starts to put their interest in providing the connection through similar or alternative technologies. Such initiatives directly threaten CSPs’ revenue stream because in this case, the OTT Players no longer act as complements but as substitutes to the CSPs.

Other than technologies and services, the primary differences between CSPs and OTT Players are also the business model they are using. CSPs charge their customers using multi-tiers tariff, subscription fees and usage fees which could be charged monthly (postpaid) or upfront (prepaid). In this sense, CSPs implement one-sided value chain model in which all the vendors supply the CSPs to get direct payment and the CSPs then charge the customers per subscription and per usage basis. This model has two primary disadvantages. The first disadvantage is the easiness to duplicate the model. This is very true especially for a commodity business where emotional benefits such as brand perception give just little influence. Competitors can just find a way to lower the price and reduce the margin significantly. Therefore, without the presence of OTT Players, CSPs are already suffering price war among themselves. Even worse for CSPs, they are also experiencing the second disadvantage which is they cannot provide the service for free. Since CSPs use one-sided value chain model, the available option to return the investment is by charging the customers.

Many OTT Playerson the other hand, have been smartly deploying two-sided markets model to succeed whereas they are utilizing CSPs network, the core investment and competencies of all CSPs around
the world. By implementing two-sided markets model, OTT Players can get more sustainable competitiveness once the two sides of the market are developed. Until that critical mass is achieved, the OTT Players must minimize their expenses but this shouldn’t be a big problem since they don’t have to invest in the network, the largest cost component in the effort to deliver the service.Once the critical mass is achieved, the OTT Players can start earning revenues from advertising, charging small amount per transaction, charging for more premium content or they can just sell the business. Using this business model, the OTT Players can provide their service for free to the customers forever or at least until certain levels. In all of those cases, the CSPs suffer the burden but the OTT Players get the potentials.

Many analysts suggest CSPs to get new revenue from new business either directly or indirectly related to their existing core business. There are many initiatives conducted by CSPs all over the world to generate those new revenues but very few of them seems to give significant results. Interestingly, among those CSPs’ initiatives, most of them were not very well thought in a two-sided markets context and CSPs are stuck with their initial one-sided value-chain model. In the value-chain model, a business gets supply (in form of raw material, equipment, workforce etc.) from one side and pay for it directly. The business then uses this supply to produce final goods and sell it to the buyers using various channels. The buyers pay for the goods to the business and the channels get some portion of the payment to cover their service.

In the two-sided markets model, the business acts more like an intermediary. The business attracts market from both supply side and demand side and facilitates their interaction (and transaction) through a platform (which could be application, system, network or combination of those). Recently, many OTT Players such as Google, Facebook, and Apple have been successfully implementing two-sided markets model and impacting the CSPs’ business.

II. RELATED LITERATURE

Two-sided markets model consists of a platform which is provided by a business or company, a supply-side market and a demand-side market. Supply-side market provides something to be consumed by the demand-side market. There are agents in both supply-side and demand-side markets who interact each other through the platform. Figure 1 describes the structure of two-sided markets model. Wugang Zhao argue that value chain model faces diminishing issues because value chain model is a competition of product which focus in one of the following three porter generic strategies: cost leadership, differentiation and focus (Zhao, 2011). Zhao explains that two-sided markets model use both of product competition and customer-focused competition and therefore it can overcome the diminishing issue. If Zhao is correct, then isn’t it more attractive to implement two-sided markets model? The real questions are which business can enter two-sided markets and how to impellent it. To answer the first question, any markets involve transactions between two (or more) parties are potential two-sided markets (Rochet and Tirole, 2006). And to answer the second question, any businesses try to implement two-sided markets must successfully attract both side of the market to join and reach the critical mass from both side of the market (Rysman, 2009).

Unlike the one-sided market which merely depends on supply and demand on one side of the market, two-sided markets rely on both sides of the market and even more, the success of attracting one side of the market could influence the other. In a positively correlate markets, the more a business can attract a market from one side will determine its success to attract the market from the other side.

CSPs are providing network connection to many of their customers. This kind of service definitely involves a lot of externalities. Most markets with network externalities are potentially two-sided (Rochet and Tirole, 2003). In a two-sided markets model, a platform (which is supposedly provided by a company) connects two sides of the market, one on a supply side and one on a demand side. Let us take a look on two distinct examples of two-sided markets, video game console and credit card. In video game console business, a console (as the platform in this case) provider must attract the game developers from
supply side and gamers on the other side. Similarly, in credit card business, the card (as the platform in this case) provider must attract merchants from supply side and cardholders from demand side. The tricky part is that in the two-sided markets, the number of agents (suppliers) on one side will affect the number of agents (consumers) on the other side. The effect can be positive or negative. In a positively affected market, more agents join on one side will stimulate more agents on the other side. In contrary, in a negatively affected market, more agents join on one side will stimulate less agents on the other side. To be competitive in two-sided markets, the platform can adjust the way it treats each side of the market. For instance, in a positively affected market, the platform may not charge the supply side to attract more suppliers and therefore it can attract more consumers which will be charged higher to subsidize the supply side and vice versa. In a negatively affected market, the platform may limit the maximum amount of agents on one side to keep optimum level of agents on the other side. This phenomenon reflects the network effects of two-sided markets (Armstrong, 2006).

There are four categories of two-sided markets: intermediation markets in which platform act as matchmakers between two sides, audience-making markets in which platform act as market makers for one side of the market, shared input markets in which users from the other side must acquire a bottleneck input before they can use the products offered by the opposite side, and finally transaction-based markets where all transaction can be measured and used for the basis of charge (Hagiu, 2004). Hagiu argue that mobile communication service provider (one type of CSPs) belongs to the transaction-based markets and therefore faces two-stage problems: the first stage is to get both sides on board and the second stage is to stimulate both sides to interact.

Just like in the one-sided market, two sided-markets also face competition among platforms. However, since in the two-sided markets agent from one side is attached to agent from the other side, they cannot easily leave the platform. This condition make competing platforms can coexist if they differentiate from each other (Chou and Shy, 1990; Church and Gandal, 1992). Another important piece of work comes from Julian Wright who contrasts the difference between one-sided market with two-sided markets and rationalizes the danger of using one-sided logic into two-sided markets. There are eight fallacies in using one-sided logic into two-sided markets model which are efficient price structure, high price-cost margin, price below marginal cost, necessity of competition increase, more balanced price structure due to competition, mature market price structure, the use of subsidy from the other side, and neutrality of price regulation (Wright 2004).

In overall, most papers on two-sided markets model pay quite much attention on constructing mathematical model and do not very much cover the implementation of two-sided markets model such as how can it be successfully implemented, what are the critical factors, and how to accelerate the success of two-sided markets model in the real practice.

In summary, the discussion on two-sided markets model can be categorized into ten interrelated topics as follow: conceptual descriptions, conditions to apply the model, contrast with one-sided market, externalities and network effect, fee structure, single or multi-homing, categorization, platform competition, optimization strategy and fallacies. Brief descriptions on each topic are depicted on the Figure 2 below.

<table>
<thead>
<tr>
<th>Two-sided markets model topics coverage</th>
<th>Description</th>
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<tbody>
<tr>
<td>Conceptual descriptions</td>
<td>Definitions of two-sided markets and some explanation of the concept.</td>
</tr>
<tr>
<td>Conditions to apply the model</td>
<td>Circumstances under which two-sided markets model will apply.</td>
</tr>
<tr>
<td>Contrast with one-sided market</td>
<td>Essential differences between two-sided markets and one-sided markets.</td>
</tr>
<tr>
<td>Externalities and network effect</td>
<td>Relationships among parties involved in the two-sided markets and the effect of one side of the market to the other.</td>
</tr>
<tr>
<td>Fee Structure</td>
<td>The use of subscription, membership transaction or usage fees.</td>
</tr>
<tr>
<td>Single or Multi-Homing</td>
<td>Either the agents can only participate in one platform or multi-platforms.</td>
</tr>
<tr>
<td>Categorization</td>
<td>Types of two-sided markets model.</td>
</tr>
<tr>
<td>Platform Competition</td>
<td>Competition types of the platform such as competition, monopoly, exclusivity and the requirement to meet certain conditions (which act as bottleneck to the model).</td>
</tr>
<tr>
<td>Optimization Strategy</td>
<td>Options for platform to optimize its performance such as product focus, customer focus, differentiation, pricing, openness,</td>
</tr>
</tbody>
</table>
Fallacies Miss-use of one-sided logic into two-sided markets model.

Figure 2: Description on two-sided markets model topics

On the other hand, discussion on two-sided markets model very rarely uses CSPs as an example of two-sided markets model. One paper addresses mobile communication on two-sided markets discussion but the discussion merely on single or multi-homing (Armstrong, 2006). Another paper which addresses CSPs was about the inclusion of mobile communication service into transaction-based two-sided markets model (Hagiu, 2004).

Besides the topics as addressed earlier, authors of two-sided markets model also very often use examples of two-sided markets model in various business areas as described in the Figure 3 below. As we can see on the table, the examples being discussed in two-sided markets model come from various businesses but only mobile communication which relevant to represent the CSPs situation.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Business</th>
</tr>
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<tbody>
<tr>
<td>Internet/computer</td>
<td>Search engine, social network, web browser,</td>
</tr>
<tr>
<td>related</td>
<td>Internet market, online business, online</td>
</tr>
<tr>
<td></td>
<td>payment, operating system, software</td>
</tr>
<tr>
<td>Telecommunication</td>
<td>mobile communication</td>
</tr>
<tr>
<td>Advertising</td>
<td>Advertising on media platform, media, portal</td>
</tr>
<tr>
<td>Payment</td>
<td>Payment system, payment card</td>
</tr>
<tr>
<td>Retails</td>
<td>Supermarkets, mall</td>
</tr>
<tr>
<td>Other</td>
<td>Game console, B2B</td>
</tr>
</tbody>
</table>

Figure 3: Examples of business categories in two-sided markets

From the examples of the use of two-sided markets model as described above, there is no specific discussion in regards to two-sided markets model implementation in CSPs and in particular how CSPs can utilize two-sided markets model in response to the OTT Players.

On the other hand, articles in regards to CSPs and more specifically in relation to OTT services, do not very much cover the possibilities of implementing two-sided markets model. Most of the articles in CSP industry address the threats from OTT Players including recent OTT services and how CSPs can duplicate them. However, the essence and influence of two-sided markets model which have been the key success factor for the OTT Players are not further elaborated. For example, Dewnarain suggests that M2M (machine to machine) business has two-sided markets characteristics (Dewnarain, 2014b) but there is no further explanation on how the two-sided markets model should be implemented in the M2M business. Other articles being used as references do not even mention about two-sided markets model.

There are several possibilities to explain this situation such as the CSPs are unaware of two-sided markets model, CSPs presume two-sided markets model as something that can be implemented easily and therefore not need to discuss it, CSPs do not consider two-sided markets model as an attractive solution and CSPs do not consider two-sided markets model as a priority. The first reason seems not valid since for quite sometimes CSPs have been experiencing anxiety in responding to OTT Players and therefore they should have learned something about it. Besides, it is so obvious that many OTT Players have been deploying the two-sided markets model in many of their business. The second reason also seems not valid because if it is presumed as something easy, than many CSPs would have tried it and there will be more reports about that. There is no point of trying to find a difficult solution if the easy one is already fit to the problem in hand. The third and fourth reasons are more likely to be true. CSPs may not be interested in two-sided markets model because they will give their service for free to customers, which means they will loss most of their current revenues for unsecured new revenues. This dilemma could lead to the fourth reason, not considering two-sided markets model as a priority. Analysis and recommendation in regards to CSPs’ business are shown in the Figure 4.

<table>
<thead>
<tr>
<th>Business</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSPs’ connectivity</td>
<td>Current and primary source of revenue which continue to</td>
</tr>
<tr>
<td></td>
<td>decline due to OTT services</td>
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<tr>
<td>CSPs’ content</td>
<td>CSPs’ initiatives to add more value of its connectivity</td>
</tr>
<tr>
<td>CSP’s business</td>
<td>The way CSPs can earn revenue from its old and new</td>
</tr>
<tr>
<td>model</td>
<td>business</td>
</tr>
<tr>
<td>OTT content</td>
<td>Contents provided by OTT Players through CSPs’</td>
</tr>
<tr>
<td></td>
<td>connectivity</td>
</tr>
<tr>
<td>OTT strategies</td>
<td>The way OTT Players attack CSPs’ business</td>
</tr>
<tr>
<td>OTT’s threats</td>
<td>How OTT Players can potentially reduce CSPs’ revenues</td>
</tr>
<tr>
<td>toward CSPs</td>
<td>and take over CSPs’ competitive position</td>
</tr>
</tbody>
</table>
one-sided market. For example, Blackberry Messenger for iPhone is now offering free ads service with some additional payment. Other OTT Players just directly hit the CSPs’ revenue by providing substitute services for free. Fall into these categories are any type of communication services such as Skype, Blackberry Messengers, Whatsapp and Line.

Another OTT Players’ business model is to capitalize their share value by attracting as much users as possible and expecting some big companies to buy them. Well, it is still subject to further justification to conclude that kind of approach can also be devised as a business model. Perhaps it is merely just a coincidence between strategic corporate action decisions and the hype of those OTT Players in particular. Even though it sounds like a fairy tale but such long shot scenario can be prepared and once the fortune arrives, the previously zero-revenue start-up could change into a billions-worth enterprise. However, there are quite considerable risks if no one is interested to buy the initiatives and the start-up companies have loss some money during the investment and operation periods.

CSPs’ concerns for OTT Players’ existence can be categorized into three situations as follow: revenue decrease due to free substitute OTT services, more bandwidth consumption but doesn’t correlate with revenue increase, and customers’ mind share is more occupied by the OTT service (Gartner report by Dewnarain, 2014). The regulation on these areas does not seems to settle this conflict of interests. What CSPs can do is to adapt to the new games played by the OTT Players and adjust their business models accordingly.

IV. CSPs’ STRATEGY OPTIONS

How could CSPs adapt to the new games played by the OTT Players? CSPs rely on per-subscription and per-transaction revenues while OTT Players provide substitute service for free. CSPs heavily invest in the network infrastructure while OTT Players just simply occupy it. Most users will have conversation about what application they are using to interact such a: “Are you using Skype?” or “Can you Whatsapp me?” and don’t really bother with the connection services provided by the CSPs unless they are having trouble with the connection. In that case, they will simply search for other connection services. For CSPs, it is a really thought business to be in.

To identify what kind of strategies which are feasible for CSPs to respond to OTT Players’ existence, we must first categorize OTT Players’ segments and

<table>
<thead>
<tr>
<th>CSP strategy options</th>
<th>Viable strategy options for CSP to respond to OTT Players</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSP two-sided markets model</td>
<td>CSPs’ potential in exploring two-sided markets opportunity</td>
</tr>
</tbody>
</table>

Figure 4: Analysis and recommendation in for CSPs

III. CSPS' OPPORTUNITIES AND THREATS

The existence of OTT Players has created significant increase in bandwidth usage which are provided by the CSPs. CSPs can monetize this increase if the increase comes from new subscribers or upgrade from existing subscribers. However, such increase cannot be monetized if the subscribers can still use their existing quota or if the CSPs have to decrease the price or increase the quota due to competition. Nevertheless, the CSPs already loss some of its revenue from per call basis in the voice service and per send basis in the text messaging service. This situation is frequently referred to the CSPs as a dumb-pipe network, meaning they can do nothing while the OTT Players are seizing their network to capture new business opportunities while also causing CSPs to lose some of their existing revenues.

On the other hand, OTT Players can easily play two-sided markets by using CSPs’ network equipped with their computer servers and applications to provide the platform. Google provide search engine platform to attract searchers (users) and as the number of searchers increase, Google becomes more attractive to the advertisers. Similarly Youtube provides video servers and attracts millions of videos across the world. The more videos are uploaded to Youtube, the more viewers attracted to view them and the more advertisers are also interested in placing their ads. Ebay, Amazon, and many others conduct two-sided approach and utilize CSPs’ network to deliver their service. The OTT Players occupy the network provided by the CSPs, they optimize it with some functions and attract both sides of the markets. Some OTT Players also offer freemium service which provide basic service for free and charge premium for additional service. Many online games use freemium as their business model. Gamers can download and play their games but to modify their avatars, they must buy some kind of costume and weapons using credit card or any other form of electronic payment. Interestingly, some OTT Players who have negative network effect, meaning that the more they can attract agents from one side will be less attractive their platforms are to the other side of the market, provide freemium service to eliminate this negative network effect and in essence change their business model to
assess their impacts. In Gartner Report, Dewnarain addresses four categories of OTT Players as follow:

1. The ecosystem players which provides platform for other parties to run their application and content or to interact and transact physical goods or electronic goods such as application and content. Fall into this category are Apple, Google, Amazon, Microsoft, Alibaba, Tencent, Baidu.

2. The voice over IP (VoIP) and messaging players which directly substitute the CSPs voice and messaging service by providing alternate voice and messaging solition. Examples of this OTT Players type are Skype, Viber, WhatsApp, Snapchat, Line, WeChat, KakaoTalk.

3. The content-streaming players which deliver contents (mostly movies or any video contents) through high speed broadband connection. The following are OTT Players in this category: Netflix, Hulu, Spotify, Deezer, Youku, Letv.

4. The contextual service providers which provide social network or sharing services among users. Example of this category are: Facebook, Twitter, Dropbox, Layar, Renren, Weibo.

From those four categories, we can recognize that several major OTT Players such as Apple, Google, Amazon, Microsoft, Alibaba, Hulu and Facebook implement two-sided markets model. Line, Netflix, HuluPlus and Dropbox offers freemium services. Both two-sided markets model and freemium are not directly charges their users and potentially threats CSPs usage-base revenue. Since OTT services are very flexible (mostly rely on application layer of the Internet Protocol network), they can just easily switch their business model into two-sided markets model or freemium model or play both models at the same time like what Hulu does.

If we pay more careful attention to those four categories as explained earlier, we could identify how each of them will impact CSPs business. Ecosystem players and contextual service providers will add more usage to the connection and not so much consume the bandwidth. So CSPs can consider them not as a substitute but as a complement. The VoIP and Messaging players are the worst. They directly substitute CSPs service and decrease the revenue. The content-streaming players will occupy a lot of CSPs’ bandwidth but not necessarily increase the revenue. They never threat the CSPs, but they utilize the network much more than others until the customers complaint about the speed and push the CSPs to increase the bandwidth and most likely keep the price remains the same.

Furthermore, Dewnarain suggests the following five main strategic options for CSPs when dealing with OTT Players:

1. The aggressive strategy. By aggressive means the CSPs directly position itself as a competitor to the OTT Players. This involves provocative action such as blocking the OTT Players.

2. The reactive strategy. This strategy is meant to reduce the impact of OTT services. CSPs are suggested to use techniques such as Wi-Fi offloading and throttling to reduce the impact of OTT Players on their network.

3. The opportunistic strategy. CSPs can create a dumping-like policy to set up some barriers for the OTT Players. For example, CSPs could charge a premium for third-party OTT services or zero-rate their own branded OTT services.

4. The collaborative strategy. In this strategy, CSPs are expected to embrace OTT Players and optimize the opportunities by partnering with selected OTT Players under a marketing agreement or a revenue share deal.

5. The competitive strategy. Basically CSPs must develop their own OTT capability by launching their own branded OTT services to compete head-on against OTT Players.

Considering the five strategies above, clearly strategy number 3, 4 and 5 suggest that CSPs also get involved in OTT services. Strategy number 3 implicitly suggests that CSPs create similar competing OTT services and charge lower price while pushing the OTT Players to charge premium. This strategy is very vulnerable to dumping or fair-competition regulation. Strategy number 4 recommends CSPs’ involvement in OTT service by collaborating with the OTT Players. However, if the CSPs do not possess the right competency, this kind of collaboration is very likely end-up with CSPs remind providing the pipe with some privilege such as network priority, but never really get involved into the OTT business other than billing settlement. Strategy number 5 is really challenging CSPs’ capabilities to really compete with the OTT Players and that could mean platform competition. This strategy also implies that CSPs could either build or buy the OTT services. The option to buy here could mean buy the OTT services only or buy the OTT companies as a whole. At this
point, CSPs may have to decide either they will keep using the one-sided value chain model or switch to the two-sided markets model.

V. SHOULD CSPs IMPLEMENT TWO-SIDED MARKETS MODEL?

Before we can answer that question, we should assess what CSPs have as its competitive edge. From there, we can draw if CSPs have the potential to deploy two-sided markets model and how to implement it. For many years, CSPs always thought to have readily network infrastructure which covers wide areas and in many cases usually the whole nation. This huge investment is of course worth notified as a big advantage. Should OTT Players develop its own network infrastructure, most of them will be out of business immediately and leave a few major OTT Players remain in the business. Even if a very large OTT Player such as Google is trying to roll out its network infrastructure, it still will take some time to be comparable with the CSPs’ coverage.

Another thing that CSPs have to compete with OTT Players is customer data. In general, we can categorize customer data into two types: static and dynamic. Static data includes permanent customer information such as name, gender, birth date and ethnicity. Some static data may change in the long run such as address, occupation, education and hobbies. The dynamic data on the other hand include customer behavior while using the service such as number of calls, most frequently called numbers, average call durations, most recently visited websites and so on. Potentially, CSPs can also get all customer behavior data while using any OTT services since all those data also go through the CSPs’ network. Should this action be allowed, CSPs will have much larger relevant data in particular region than any OTT Players.

Accordingly, CSPs also must consider its limitation. Among those are people’s mindset, people’s skills and foot print. For a very long time, CSPs have trained their people to follow one-sided value chain model. They act as buyers to the network equipment manufacturers and use distribution channels to sell their products. CSPs are also perceived as having slow time to market. Despite intensive competition among CSPs, all of them devise time to market in months or years as something normal since network roll out take many years and due to the huge investment involved, CSPs have to calculate everything accurately since the beginning. OTT Players on the other hand, deploy their service in a matter of months or even weeks and they always work in beta because changes can be done instantly and their platforms always change.

Foot print is also an issue for CSPs. Historically, CSPs operated within certain geographical boundaries (usually country) which seems very huge when they talk about number of line in service (LIS). While, in contrast, OTT Players operate on the Internet, a boundary-less world-wide platform. OTT Players can serve global needs without having to present themselves in any particular country. For CSPs, to maintain their service coverage, it is very likely they need to present in all of their service area. If CSPs put their service on the Internet or rent the network from a network provider such in the case of Mobile Virtual Network Operator (MVNO), they may still need to have abroad representatives to guarantee the service delivery in any given location. That means, CSPs must meet certain legal conditions such as permit and license.

According to several points raised in this discussion, it is very clear that if CSPs operate as the way it is, it will be very difficult to face the OTT Players. The chance to win against the OTT Players is bigger if CSPs change its business and operation model to make them paralleled with the OTT Players. This means, CSPs should consider two-sided markets model as a new possibility to recover from OTT Players’ attack.

VI. HOW CAN CSPs IMPLEMENT TWO-SIDED MARKETS MODEL SUCCESSFULLY?

Back to the early discussion on two-sided markets model requirements, we can highlight that ability to attract both side of the markets and make them interact are the key critical factors. In other words, to be able to implement two-sided markets successfully, CSPs must figure out what is the thing they have that can attract both sides of the market and how will they stimulate the two sides of the market to interact. However, before even CSPs ask those questions, CSPs has a prerequisite question to answer. Referring back to the game console example, the network equipment manufacturers are not like game maker. Instead, the network equipment manufacturers are more like the console parts suppliers who sell parts of the console (console elements) to the console makers. So, in essence, the network equipment manufacturers do not add more value to the communication network (as platform), it just makes the network works properly. In other words, the network equipment manufacturers are not on one side of the market, they are part of the platform makers. This discussion raises the prerequisite question: if CSPs’ customer is on one
side of the market, who is on the other side of the market? CSPs must firmly recognize who are on the other side of the market in order to start their two-sided markets model correctly.

VII. CONCLUSIONS

CSPs are facing a dilemma with the existence of OTT Players. On one hand, the needs for network bandwidth increase due to more users and applications but on the other hand, CSPs’ revenue per user may not increase or even decrease due to the substitute services provided by OTT Players for free. CSPs have several strategy options to encounter this situation. Among them, strategy to create OTT services on their own is very promising to maintain CSPs’ competitiveness in the long run and will equip their network infrastructure legacy (frequently referred to as dump-pipe) with applications and contents. By providing its own OTT services, CSPs will be able to attract more customers, extend customer loyalty and increase more revenues.

To obtain its own OTT services, CSPs have three options: partnership with OTT Players, create its own business or acquire it. The option to acquire could mean buy the OTT services only or buy the OTT companies as a whole. However, the main concern remains. How the CSPs could successfully operate OTT service? The answer lies on either CSPs can play two-sided markets model or not. But to get to that answer, CSPs must firstly recognize who are on the other side of the market. From there, CSPs can start to formulate a strategy to attract both side of the market and make them interact.

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