China's IPTV Industry, Status quo and Trend

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ABSTRACT
This paper presents an overview of China's IPTV industry. Especially the exploration of some business models based on China's reality is introduced and discussed. The bottlenecks of China's IPTV industry are analyzed. The future direction of development and then some measures are proposed at the end.

Keywords
IPTV, Business Model, Supervision Policy

1. MARKET OF CHINA'S IPTV
China has opened IPTV business since 2004, and achieved rapid development even under the discouraging and restrictive supervision policy. IPTV subscribers increased from 267,000 in 2005 to 4.7 million in 2009, subscribers increased more than tenfold [1].

IPTV combines some aspects of traditional television, radio, movie, internet and other telecommunications into one integrated form. Based on interactive broadband network, IPTV could provide internet browsing, multimedia, communications, live TV, and other services. Taking advantages of those, according to Point Topic, Inc., in 2009, the number of global IPTV users grew 47%, an increase of 10.8 million users, and the total number of users had reached 33 million. China's IPTV industry has made considerable progress following global development. Since 2008, though adverse effects caused by various unsettled key issues in the industry restructuring of telecommunications, IPTV subscribers in China has still maintained a sustained rapid growth. At the end of 2009, China mainland IPTV subscribers reached 4.7 million [1].

IPTV is operated mainly by China Telecom, China Unicom (formerly China Netcom) and China Digital TV Co. at present, which would be called "Big Three" in IPTV. In 2009, China Telecom's IPTV subscribers reached 3.62 million, in which Shanghai topped 1.01 million, followed by Jiangsu 780,000, Guangdong 710,000. The China Digital TV Co. which located in Hangzhou had developed 560,000 users. Most of them were in Zhejiang province, about 420,000 [2].

It is predicted that by the end of 2010, China's IPTV subscribers will be expected to reach 9 million [3], but compared with China's population, or even with the amount of cable TV users which is more than 100 million, there is still much room for growth. Though the market competition is fierce, China is still a big cake waiting for share for IPTV industry.

2. BUSINESS MODELS OF CHINA'S IPTV
2.1 Industry Chain
IPTV's industry chain constitutes of six participants: content providers, content and value-added application integrators, content and value-added application service providers, network and transmission operators, equipment suppliers and users. The relationship between telecommunication networks operators and content providers is the most critical [4]. Therefore, how to create cooperative business win-win models which are profitable to all participants became a real urgent need.

2.2 Business Models
IPTV is a set of Internet, telecommunications and entertainment in one of the new business, which involves the terminal PC and TV terminals. Therefore, the traditional single telecom management mode, to some extent, does not meet the needs of IPTV business development. Since 2003, after more than 6 years of operation, China's IPTV operators still face business model and ecosystem issues of the industry, such as content, business model, pricing model and the ecological chain. They are still facing the problem of sustainable development, but the operation operators are actively exploring its own development model. So far, it is hard to say some of them have found a completely suitable business model and profit model for the development of IPTV in China [5].

Similar to IPTV, a global point of view, including digital television services, the business models of all the integrative services are still in the exploratory stage. In addition to cost factors, the key of earnings must be the expansion of market scale and enhance its user ARPU [5]. The development of digital television is the case, only relying on traditional advertising profits has many problems.

In terms of companies' backgrounds, there are four kinds of IPTV business models in China:

(1) Co-operation Mode

IPTV in Shanghai, for example, is co-operated by Shanghai Media and China Telecom. The two sides carried out their services in accordance with their areas of expertise to provide. In the co-operating mode, the broadcasting side was responsible to provide content and content integration, while telecommunications were mainly responsible for the infrastructure and network of common business operations and benefit-sharing.

(2) Broadcast Group Self Operating Mode

Zhejiang, IPTV service providers have radio or television background. The IPTV business development includes the content producing, content integration, network transmission and a series of links. Self operating mode in radio and television companies can conduct live, on-demand TV program, in addition to the basic business.

(3) Telecommunication Self Operating Mode

Jiangsu and Henan, for example, the telecommunication company provides IPTV services on its own. Telecommunication network operators use their own network resources and also try to reach the front end of the profit chain. They established their own content integration divisions, to purchase content resources, then refining the content and services, to provide a full package of IPTV services.

(4) New Joint Company Operating Mode

This particular model was used in the early stage of development of Hangzhou IPTV. Initially, the joint was made in between Hangzhou Netcom IPTV and the Hangzhou Digital TV Limited, to promote the implementation of market operations. In this mode, the new entity was resulted from the market competition. The background of two partners was telecommunication and broadcasting, both had a large user of resources and network resources, rich experience in market operation.

As the IPTV industry in China is still at an early stage, so all the business models remain needing further market test.

3. BOTTLENECKS OF IPTV IN CHINA AND ITS POLICY REASONS

China's IPTV industry has, despite considerable progress, still many problems:

(1) Monotonous content

IPTV competitive edge comes from its personalized contents and interactive forms of programs. Content is one of the fundamental driving forces for IPTV and other digital new media to attract users. With the explosive growth of digital new media and increased per capita consumption of media, the day that content is king is coming. However, the main operation bodies of IPTV in China - China Telecom, China Mobile and China Unicom and other state-owned telecommunications companies do not have the competitive advantage of content. China's Internet, the copyright status of chaos and free service business form, exerts a greater pressure on the value of contents of the IPTV. IPTV operators are encountering some intellectual property issues such as excessive costs of copyrights. Current IPTV contents are mainly based on traditional television programs. IPTV content now has three main sources: radio and television, Internet and content providers. Unfortunately, without IPTV, people still can access most of these resources by other means. A survey has revealed that is the reason why most people have no motivation to pay extra to launch IPTV [6]. Innovative, attractive digital new media content is still quite lacking. In fact, our traditional TV programs can not satisfy the audience's thirst for media content, only 15% of home-brewed television programs are broadcast content [5].

For telecom companies, to provide unique content is not so easy. They are lack of operational experience in the media industry. And media production in China subject to strict supervision of radio and television administration.

(2) Supervision policy

China's IPTV market is mainly supervised by three administrative departments: the Ministry of Industry, SARFT (state administration of radio film and television) and the Ministry of Culture. Three departments have many conflictions in their supervisions since they represent different sectors of the industry with their own interests.

IPTV has the characteristics of regional market. From the competition point of view, every IPTV operator faces competition first, the local radio and television system which is SARFT's play ground.

The TV and media industry is not a free market in China. Domestic media producers in radio and television are largely supervised by SARFT. Any policy change would bring about a great impact on the development of IPTV. More seriously, in 2010, restriction on IPTV seems even harsher than before. There are always headlines of that SARFT just stopped a local IPTV business without permit. And for some reasons, the permit is very hard to get.

4. THE DEVELOPMENT TREND OF CHINA'S IPTV

Interactive features of the Internet allow easier delivery of IPTV video on demand, such as interactive games, interactive value-added services. IPTV represents the direction of triple play. The overall size of IPTV user group in China is still small. However, the market potential is immeasurable. Currently, China has more than 340 million domestic broadband users. Therefore, the large broadband user base is a solid foundation for sustainable development IPTV. How to develop the IPTV users in the broadband subscribers is the main problem that telecommunications companies and other IPTV operators in China need to urgently address.

It is a trend that China's radio and television, telecommunications and the Internet, the network infrastructure industry, are accelerating their paces from the separation to integration of the industry. In this context, after a new round of political reform and related policy adjustments in 2008, the triple play of services, including IPTV, is entering an age of rapid development.

With the increasing popularity and the expansion of the market scale, IPTV market will attract more content providers, content aggregators and value-added service providers to enter. They will provide innovative contents, and bring about a broader exploration of business models. With large-scale commercial TD-SCDMA and the completion of a new round of telecom restructuring, 3G has already entered the mass market. From the user point of view, 3G terminals can be mobile IPTV user terminals. With personalized 3G terminal, IPTV user-oriented development goals will be finally realized.

Five licensed IPTV operators have, taken the chance of 2008 Beijing Olympic Games, started to kick off IPTV movement. For the three telecom operators, IPTV will be very important to its business portfolio. While two radio and TV operators are also

transform their business models to digital new media by updating the network with two-way and interactive digital TV technology.

The barriers from IPTV policy will be gradually eased. In April 2009, the State Department released "Electronic information industry restructuring and revitalization plan". The document firmly declares support to IPTV, mobile TV and other emerging service industry.

Win-win is the only way for the development of the IPTV industry and digital TV. IPTV's media properties require operators to be market-based, network -oriented, user-centered, actively cooperated with the media, entertainment and information content services. IPTV is one of the most important businesses in the next generation network (NGN). It is also a very important business form in the future digital home. With the development of ICT, it is an inevitable trend that telecommunications networks, Internet, cable TV become converge. Development of triple play requires TV terminal and PC terminal can both connect to the Internet and cable television networks, access to the Internet and receive digital TV broadcasts at the same time. The coexistence of multiple access methods ensure an optimal manner of unicast, multicast, broadcast and two-way interactive service, to meet the needs of digital new media, to realize the integration of telecommunications and broadcasting industry value chain. IPTV and digital TV operators should abandon their prejudices and learn from each other, the strategies of development, and the operational experiences, to jointly promote the triple play, to form a win-win situation.

5. CONCLUSIONS AND PROPOSED MEASURES TO PROMOTE CHINA'S IPTV

The IPTV operators should provide more unique content and applications, consistently improve the quality of user experiences with more user-friendly interaction, to enlarge their user groups.

In addition to full use of market mechanism, Chinese government should reinforce the policies of triple play, foster competing and clustering among the telecommunications and broadcasting, digital television and other media.

5.1 Proposed Measures

1. To amend the standards of issuing "information dissemination networks audio-visual programs permit". IPTV broadcasting administration of government should increase the scope of license applicants and license number. To issue more national IPTV operator licenses. To encourage state-owned strategic investors to invest in IPTV digital content related businesses.

2. To coordinate the relevant policies of triple play, eliminate the institutional and political obstacles for triple play. Triple play will be the goal to promote the IPTV industry operations.

3. To foster competing effect, according to regulatory of IPTV market. To restrict unfair competition and monopoly (particularly administrative monopoly) behavior. To enhance technology, business, marketing and strategic level cooperation.

4. To promote the renovation of the digital TV access network and backbone network, speed up the pace of digital TV industry, and IPTV services such as Internet audio and video programs, co-enlarge digital new media business market.

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