

# **The Development and Regulation of International Terrestrial TV Industry**

## **I. Preface**

The world of terrestrial broadcasting is undergoing fundamental changes, precipitated by the introduction of multimedia content production and broadcasting technology. Consumers have more choices for receiving program service and more media content consumption. Over these years, digital terrestrial TV has ushered in a transformation of broadcast television – its programming and services, its revenue sources, its corporate partnerships and ownership structures. The new transmission technology invites a wide reassessment of established programming practices, business strategies and regulatory requirements, including the public interest obligations that have long been considered fundamental to broadcast television.

The themes of this research focus on the terrestrial TV's public good properties and resource-based view as the study analysis framework. What is the public role of terrestrial TV in the era of convergence? And through the resource-based theory, what is the current status of terrestrial TV industry development after the analog switch-over period? As well as the industry's development with respect to digital economy, how should we change the status quo and improve operational efficiency?

This study employed literature analysis method and the system comparison method to conduct the international research among 8 major countries, including UK, France, USA, Canada, Japan, South Korea, New Zealand, and China. In order to offer an overview of these countries' terrestrial broadcasting current status and their media regulations, in a first step, detailed domestic industry data was collected. Then, through the discussion of the focus group symposium, different fields of experts' opinions relevant to the research topics were gathered. Subsequently, a SWOT simulation analysis was conducted and put forward what the terrestrial TV industry in Taiwan should respond to the forecast of digital economic development. Finally integrating the above research results (including the focus group's discussion and policy recommendations), with 5G development process into the core thinking, this study provided separately short-term, medium-term and long-term policy suggestions in 5, 10 and 20 years.

## **II. The Impact of Convergence on the Structure of the Terrestrial TV Industry**

Since 1990, the communication market has undergone major changes. The original analog technology has been replaced by digital technology. With spectrum scarcity, it would be more challenging to commit private broadcasters to public interest goals in exchange for a license.

The broadcasting landscape worldwide has been undergoing significant transformations (OECD, 2013). The traditional broadcasting sector with advertising income as main revenue has been derived from

other forms of online content. In addition to this, the usage of Internet and development of broadband technology have given consumers access to a greater variety of communications and media services than ever before. Hence, the popularity and the market share of each platform among broadcasting sector became more competitive. Face this current situation, authorities throughout the world have become more active in launching regulatory policies.

### **III. International Terrestrial TV Research**

This study offers the current status of audio-visual markets, regulations, spectrum policies and technology concerning the development of terrestrial TV in abovementioned countries' context. Major findings summarize as follows:

#### **1. The United Kingdom**

In the United Kingdom, the terrestrial TV is supported by government's regulation, therefore it still occupies the leadership of market today.

Ofcom report released in 2018 shows that from 2012 to 2017, the proportion of TV and multichannel services in the UK is more than 93% per year. This shows that British TV development has been guided by their regulation, unlike other countries directly into the business model and market competition. As the traditional broadcasting sector basically maintains the original proportion, or slows down year by year, while the

online media/content is increasing, especially the rapid growth of online TV industry revenue, under the influence of the convergence trend.

Public service broadcasting (PSB) nevertheless plays the major role for guiding the audio-visual industry in the UK. The service of subscription video on demand (SVoD) gradually takes over the paid-TV market.

## **2. France**

The French government attaches great importance to the development of digital terrestrial TV. In 2017, the regulatory authorities held a series of open hearing to formulate proposals and reports on future TV development. After the digital convergence, the French terrestrial TV policy is committed to modern technology upgrades, including high-definition TV program transmission and new applications of DAB+. In the era of convergence, according to CSA annual report, multichannel platform entered the market, the ratings were still lead by "traditional" channels, which still account for more than half of the population (58.5%), while the IPTV is growing rapidly. It is obvious that terrestrial TV is still the mainstream in France until the rapid growth of Internet TV.

## **3. The United States**

The United States is one of the earliest pioneering countries in the world to develop terrestrial /OTA (over the air) TV. The terrestrial TV

station employed Network Affiliate strategy very early, signing up with local independent or affiliated broadcasters to broadcast some or all of the program content of the TV station. Since the rise of multichannel video program distributors (MVPDs), and the OTT-TV platform, these platforms provide a wider range of content transmission channels for US terrestrial TV. Through this new business model of cooperation, and followed by new technology of smart TV, US digital terrestrial TV walked out of a new way.

#### **4. Canada**

Canada's process of promoting the digitization of pay TV (through cable, internet, and satellite transmission signals) is mainly market-driven. The traditional TV ratings are decreasing year by year, showing that the consumers viewing habit has gradually shifted from the traditional terrestrial TV service to the freely selectable multichannel video service. Canadian telecommunication policy follows the UK and the US models to adopt a compound dual system, merging with public and private TV management. In order to protect their domestic media, as an important tool to maintain national culture and political independence, Canada government actively assists creative talents and production content through the operation of the Canadian Media Fund (CMF).

#### **5. New Zealand**

The New Zealand government's thinking on digital television places

special emphasis on the contribution of terrestrial broadcast television to national awareness, social integration, and local content that provide New Zealand's perspective. According to “New Zealand Multiscreen Report”, presented in the first quarter of 2017, 86% of the people still use the TV as vehicle to view audiovisual content.

## **6. Japan**

Japanese terrestrial TV switched into digitalization process very early. The purpose of the TV digitalization policy expressed the eagerness of Japanese government, claiming everyone should enjoy the benefits of the ICT society. While the overall ratings of TVs in Japan in recent years were declining year by year, blaming to the rising of device "One seg" for portable viewing, and internet social media YouTube, FB and Nikoniko's popularity. Although TV advertising revenue is still the highest in all audiovisual industries in Japan, according to CyberAgent press released in 2018, its advertising distribution has gradually shifted to online platforms, and advertising revenues for future online platforms are expected to continue to increase .

## **7. South Korea**

The South Korean broadcast and television industry can be broadly divided into two major parts: terrestrial TV and pay TV. Pay TV consists of cable TV, IPTV and satellite TV. As regards to the viewing ratings on various platforms, the official statistics of Korea in 2017 shows that

terrestrial TV viewing is still the mainstream, ranking first with 53.234%. However, in recent years, the rise of Internet multichannel platforms has gradually spurred the ratings of terrestrial TV stations, and the government set by laws to enhance the quality and the innovation of terrestrial TV industry.

## **8. China**

China's terrestrial broadcasting possesses three different characteristics. One is for ideological control over this form of propaganda, the second is to fulfill their social policy over these public services, and the third characteristic is based on economic nature to manage this business. According to the “2017 China Family Rating Market Household Survey”, the current overall ratings of households in mainland China still dominate with digital cable TV, accounting for 58.8%, but the proportion continues to decline, followed by digital satellite TV and IPTV. Internet TV grew rapidly. In 2017, the national OTT TV subscribers grew rapidly, with an annual growth rate of 482.0%.

In addition to these major findings from the eight countries mentioned above, this study also summarized the main tendency in the development as well as in the regulatory issues after the switch-over of traditional terrestrial broadcasting in these studied countries:

### **1. Terrestrial broadcasting remains the mainstream of viewing:**

With the impact of multichannel video platforms, the terrestrial broadcasting still dominated in many countries the mainstream of viewing, such as in the United Kingdom, France, and Canada etc..

## **2. Content industries highly emphasized:**

In the era of convergence, many governments' regulations aimed at boosting their content industries through subsidies or funding systems to stimulate their broadcasting talents such as in the UK, New Zealand, South Korea and Canada.

## **3. Alternative way to cope with OTT-V platform:**

With the fast rise of streaming platforms as a dangerous competitor to traditional broadcasting, many countries brought up the idea of integrating the terrestrial TV content into an OTT-V platform, with the hope to increase their global exposure in the video market.

## **4. Technology enhancement to boost the development of DTV:**

After digital switchover, the spectrum's white space issues and multiplexing transmission were brought up in many countries for the further development of their terrestrial TV broadcasting. In order to improve the technology of terrestrial TV industry, many governments launched the research and experimental projects to enhance the technology of audio-visual production, such as 4K and 8K technology,



5G development plan etc., to upgrade their terrestrial TV's competition, as the case in Japan, in the US, and in France.

#### **IV. Conclusion and Suggestions:**

Taiwan's terrestrial TV has been digitalized in 2012, but in the competition with other viewing sources such as cable TV and MOD, the viewing is not as good as it used to be. In addition, the current digital terrestrial channels carried by cable TV platform only contain 10 main terrestrial channels, and the other channels are still difficult to reach, resulting in viewers not being able to receive all digital terrestrial channels. Face to these problems, this study proposes superlatively its short, medium and long-term regulatory recommendations in the period of 5 years, 10 years and 20 years:

1. Short-term (within 5 year) policies: review the utilization of frequencies spectrum and public services issues, re-exam the possibility of second single-frequency network, build-up relevant regulations to cope with the changing markets, and separate the delivery and broadcasting tasks of terrestrial TV stations.

2. Medium-term (within 10 year) policies: First of all, focus on the external market, all the audiovisual archives should be well reserved and reached by the public. Then, build up a national terrestrial broadcasting content platform to expand their overseas audiovisual markets. The

objective is to create a better environment in generating the local content for the terrestrial broadcasting sector and competing in a global market place.

3. Long-term (within 20 year) policy: launch 6G/Post 6G TV development planning in advance. In view of the development of 6G/Post 6G in 2040, the image transmission technology may have a big change in the vehicle and the viewing platform. The impact of new technology changes terrestrial TV market, such as Smart TV, Internet of Things, and A.I. generated by industrial competition, terrestrial TV is likely to have new definitions and operating models.