## Summary

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In order to understand and analyze the audience's behavior in listening to broadcasting stations and their use of and attitude towards broadcast media, the National Communications Commission (NCC) conducted a survey in 2010, 2013 and 2016. To keep track of the long-term evolution trends of radio listening behavior and the profile of listeners as a reference for the future revision of relevant laws and regulations by the NCC, so that the laws and regulations can keep pace with the times, this study is intended to continue the previous research on the listening behavior of radio stations, investigate and analyze the radio listening behavior of the audience, their satisfaction with programs and advertisements, and what services are expected or recommended to be developed in the future for the radio industry to attract listeners continuously. Based on the results of the questionnaire, qualitative research such as in-depth interviews or focus group discussions was conducted among scholars, experts, representatives of the broadcasting industry, and general audiences to obtain information about the current operation of the broadcasting industry and specific suggestions for future development, so as to provide broadcasters with the basis to examine and plan the future operation and content of radio stations, make the development of the radio industry more in line with the times towards a healthy prospect.

This study is conducted with a multi-method approach. Part one: CATI interviews with audiences; Part two: collecting data through focus group discussions and in-depth interviews and collating quantitative survey data and conclusions, and inviting listeners, experts/scholars and broadcasters to put forward relevant views and suggestions.

In the first part of the telephone survey, 7,121 people were contacted effectively, of which 2,406 broadcasting listeners were interviewed successfully, with a confidence level of $95 \%$ and a sampling error of $\pm 2.00 \%$. The effective audience is defined by the 24 -hour recall
method (continuously listening to the same radio program for more than five minutes within 24 hours). Successful online interviews were conducted with 817 effective radio audiences. In the second part, three symposiums have been completed, including the audience symposium, the radio program executive symposium and the symposium of experts and scholars. Nine radio operators have been interviewed, including one with high power, three with medium power, two with low power, two broadcast networks, and one new operator, a total of nine.

## The findings are as follows:

## 1. Audience profile analysis

(1) According to the telephone survey, the general audience decreased from $63.8 \%$ in 2010 to $41.4 \%$ in 2019 , the ordinary audience fell from $48.6 \%$ in 2010 to $24.1 \%$ in 2019 , the effective audience dropped from $29.8 \%$ in 2010 to $20.6 \%$ in 2019 , and the non audience increased from $36.2 \%$ in 2010 to $58.6 \%$ in 2019.
(2) By comparing the results of telephone interviews and Internet surveys over the years, it is found that the age group of 30-49 year olds is with the highest proportion of Internet listening, among which the office workers are the majority. Compared with 2016, the age of effective audiences in Internet surveys also shows a growing trend year by year, with a downward trend in the number of 20-29-year-old and 13-19-year-old audiences).

## 2. Analysis of radio listening behavior

(1) "Car radio/stereo systems" and "general radio/stereo systems" are still the main listening modes, among which the proportion of "car radio/stereo systems" is on the rise while that of "general radio/stereo systems" is in decline.
(2) The proportion of listeners who use mobile phones / computers to listen to the radio is higher than those through "mobile apps," "online radio stations" and "mobile built-in radio channels."
(3) Listeners listen mainly for "accompanying" and "acquiring new knowledge," so they prefer "music" and "news" programs.
(4) According to the telephone interviews, the audience's stickiness rate has surpassed that of the Internet audience, and the proportion of regular and fixed listening is on the high side, while there is no significant difference in the daily listening time.
(5) The proportion of listeners listening to the radio is higher in the high-power stations, while the frequently-listened to radio stations have more channels in the whole region and network.
(6) The Internet survey found that the listening intention of the potential audience is higher than that of the potential audience in the telephone interview.
(7) According to the survey by telephone, the majority of listeners in different regions/age groups/ethnic groups listen to whole-region and broadcast networks, mostly through "car radio/stereo systems" and "general radio/stereo systems." Most of the audience listen to the programs with "Mandarin" and "Taiwanese" as the spoken languages, while more audiences in the northern and central regions listen to Hakka-language programs.

## 3. Radio activities and audience interaction

(1) The participation rate of online respondents in physical activities of radio stations, call-ins and fan groups of radio stations, programs or hosts is significantly higher than that of those interviewed by telephone, and a "lottery or prize" is the main factor affecting the interaction with the Internet audience.
(2) The ratio of viewing rates and preference of Internet respondents watching live webcasts is significantly higher than those interviewed by telephone. The reason for the latter watching the webcast is that they could see more pictures (like watching TV programs), while the reason for the former watching the webcast is that they could see the host or guests.
(3) Most listeners like the current radio program "Service Online" best. For new services, Internet listeners prefer "Listen Online" and "Listen Live."

## 4. Program product information and advertising length

(1) About $10 \%$ of the audience have purchased products or services introduced in the radio programs. The majority of the audience prefer "health product" and the Internet audience also prefer "general food" and "leisure travel packages."
(2) Forty-eight percent of the telephone respondents are receptive to product information placed in the radio programs and presented as a form of advertisement, while the online respondents' receptiveness is lower than that of the former.
(3) Both the current government-mandated advertising time and the NCC's mandated broadcast time for sponsors are more acceptable to the telephone respondents than to the online respondents.

## 5. Radio operators' operation and related policies

(1) Most operators have developed different strategies to meet the needs of the changing age groups of the audience. Among them, the broadcast network works in tandem with webcasts to develop new forms of audio-visual programs, while high-power and medium-power stations communicate with young audiences through social media. Limited by hardware equipment and headcounts, low-power stations still focus on audience activities and services.
(2) Some outlets reflect that the length of advertising time can be flexibly relaxed or the total amount control can be introduced. Audiences, operators and experts and scholars have similar opinions on product placement and commercial sponsorships, but the audience thinks that product placement should adopt a more subtle approach and has a limited time of exposure to avoid causing antipathy.
(3) The operators hope that the government would help to establish a consultation mechanism for the profit sharing of music copyright fees, and suggest that the future focus of broadcasting policy be on assisting with their integration and transformation, without imposing overly strict limits.

## The research suggestions are as follows:

## 1. Overcome the challenges and restrictions posed for the broadcasting industry

(1) It is suggested that the competent authority assist in establishing a reasonable charging model for music and promote the development of a reasonable charging mechanism through guilds and associations.

Since music programs are widely preferred by the audience but the music copyright royalties for individual radio stations are on the high side, the radio operators hope that the government would help to establish a music database and a consultation mechanism for the profit sharing of music copyright fees to coordinate and integrate the music libraries of various stations and reduce the royalties through joint purchasing. It is suggested that the competent authority assist in setting up a more reasonable model for the use of music and promote the development of a reasonable charging mechanism through guilds and associations.
(2) It is suggested that the competent authority assist the guilds and associations in inviting radio stations and experts with professional skills to jointly plan and push the establishment of a streaming broadcasting platform or a new type of digital broadcasting mode

According to the results of the quantitative survey, the proportion of respondents who use mobile phones/computers to listen to radio through the "official radio app" is higher ( $58.3 \%$ in the phone-survey and $77.1 \%$ in the Internet-survey), followed by the "collective radio app" ( $45.0 \%$ and $59.4 \%$ respectively).

Most operators suggest that the competent authority assist in building a collective public platform, similar to the concept of streaming cloud or a radio park, and put all radio stations on the cloud. Not only can the audience listen across regions to expand each operator's market, when driving or a power failure or disaster occurs, radio broadcasting can also play an important role in
delivering messages.
It is suggested that the competent authority assist the guilds and associations in inviting radio stations and experts with expertise to jointly plan and promote the establishment of streaming broadcasting platforms or the development of new digital broadcasting models, so as to prevent the operators from establishing their own apps and save development costs. Operators support the concept of user charges, but wish it to be reasonable and affordable, avoiding different fees charged by different platforms.
(3) It is suggested that the competent authority understand the radio operators' willingness for consolidation and the number thereof through the guilds and associations, and evaluate relevant supporting measures and policy adjustments
A small number of companies have expressed hope that the law will allow them to integrate in line with market mechanisms by easing shareholding limits. Experts and scholars believe that if the competent authority wants to encourage the integration of radio operators, relevant policies need to be changed. If the broadcasters are willing to integrate in the future, the restrictions on the proportion of equity distribution and relevant supporting measures need to be adjusted.

It is suggested that in the future, the competent authority can understand, through the guilds and associations, the radio operators' willingness for consolidation and the number thereof in response to changes in the market environment, and evaluate relevant supporting measures before making policy adjustments.

## 2. Future transformation and development of broadcasting industry

(1) The guild or association should speak on behalf of the industry, develop the self-discipline of the operators and assist with the transformation of the radio stations.

Experts and industry operators believe that rather than letting the outlets go it alone, the guilds or associations should integrate
industry voices and reflect them to the authorities on the future needs of industry consolidation or transformation, as well as proportional limits on government budget allocations.

When the industry wants the government to open up and loosen the restrictions, experts and scholars also maintain that the guilds or associations should develop self-discipline for management, and then discuss with the competent authority, so as to prevent the competent authority from hesitating in relaxing the regulations due to the operators' immature self-discipline.

It is suggested that the guild or association should strengthen its role and function to speak on behalf of the broadcasting industry, establish self-discipline management standards for operators, and assist government agencies in promoting the industry transformation of radio stations to keep abreast of the digital convergence trend.
(2) Develop new business models and expand the target audience according to different audience needs

Radio operators all feel the growing age of the audience, and believe that Facebook, Line and live broadcasting need to be operated separately from traditional broadcasting. Therefore, a double-track system should be put in place as audiences vary in age and the use of the device differs greatly. It is suggested that in addition to retaining existing audiences, radio operators should also develop their potential audiences by combining social media with new forms of programming to expand the target audience.
(3) Encourage guilds and associations to work with the government authorities to provide professional training programs to enhance the operational capabilities of broadcasters and to create new business models.

Since the age of effective radio listeners has been gradually rising to 30 years old and older, and the audience aged 30 to 59 years old mostly listen to the vehicle radio, and radio broadcasting has long been playing a vital role in transmitting messages during
driving and power failures or disasters.
Some operators are concerned that if automobiles cancel FM broadcasting and switch to digital audio broadcasting (DAB) technology in the future, it will inflict the burden and dilemma on those who have not yet made the digital transition. Therefore, it is suggested that the government familiarize operators with the future broadcasting development trend and direction and how to cope with 5G mobile services.

Some operators have responded to the digital transformation by creating apps, combining live and broadcast programs, and establishing music or program databases, to turn programs into a digital library and provide multiple listening modes for audiences.

To keep up with the trend of industrial transformation and digital convergence, it is suggested that in the future, guilds and associations be encouraged to cooperate with government authorities in offering professional training courses, so as to promote the operational capabilities of broadcasters and create new business models. Course topics may include cross-platform applications, the development of young audience markets, program innovation or technological innovation.

