# Broadcasting Market Survey 

Report Commissioned by:
National Communications Commission

Taiwan Institute of Economic Research

Feb 2020

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## I. Purpose

The rapid development in information and communications technologies has driven the overall digital economy to flourish. With the trend of convergence, the communications industry is vital to the national economy and development. In particular, how consumers use communications services in the communications market is not only closely related to the business operations and technological development in the overall communications industry, but its impact is also expanding to numerous other industries.

A survey on the communications provides an overview of the national development and consumer behavior. A mechanism of surveys and investigations on the market and consumer behavior has been established for a long time in many developed countries worldwide, such as Ofcom, the communications regulator in the UK, the Ministry of Internal Affairs and Communications in Japan, KCC in Korea and IMDA in Singapore. In these countries, related information is regularly collected and documented to provide important statistics about the communications industry. A regular survey can serve as a key indicator of overall national development on one hand and offer an understanding of the consumer behavior and the market on the other.

The National Communications Commission (NCC) of Taiwan conducted its first comprehensive communications market survey in 2017. The survey aims to obtain first-hand objective and detailed data on consumer behavior and the status of innovative applications through a comprehensive and in-depth investigation of the demand side. In addition, the obtained information will serve as an indicator of the development of Taiwan's digital economy, as well as the basis for the development of future policies and regulations.

## II. Survey Methods

## A. Questionnaire Design

The questionnaires used in this survey are designed with reference to the way Ofcom, the British communications regulator, has surveyed consumer behavior and trends in the communications market, and modified based on the latest development of Taiwan's convergence.

## B. Population and Sampling Strategy

## 1. Survey population

The survey was conducted in Taiwan, Penghu, Kinmen and Matsu proper with people aged 16 and over (those who were born on and before December 31, 2003) being approached.

## 2. Sampling method

Using the principle of PPS (probabilities proportional to size) sampling, sampling was performed in three stages. In the first and second stages, samples were allocated based on the proportion of the population in the area; while in the third stage, samples were selected using convenience sampling.

The stratified sampling used in this research is based on the classifications established by Peichun Hou et al. (2008), where villages, towns, cities and districts are grouped into seven levels based on the development. Thus, Taiwan's 358 townships and districts are divided into seven levels. They are city cores, commercial and industrial areas, emerging cities and townships, traditional industry townships, less-developed townships, established townships and remote townships. The primary sampling units were townships, the secondary sampling units were villages, and the third sampling units were gathering places in the townships where an interview point was set up.

Table 1 Levels of Townships and Districts

| $\begin{array}{\|l\|} \hline \text { Level } \\ \text { Code } \\ \hline \end{array}$ | N |
| :---: | :---: |
| 1 | Songshan District of Taipei City, Xinyi District of Taipei City, Da'an District of Taipei City, Zhongzheng District of Taipei City, Datong District of Taipei City, Wanhua District of Taipei City, Yonghe District of New Taipei City, Central District of Taichung City, West District of Taichung City, North District of Taichung City, East District of Tainan City, West Central District of Tainan City, Yancheng District of Kaohsiung City, Sanmin District of Kaohsiung City, Xinxing District of Kaohsiung City, Qianjin District of Kaohsiung City, Lingya District of Kaohsiung City |
| 2 | Zhongshan District of Taipei City, Wenshan District of Taipei City, Nangang District of Taipei City, Neihu District of Taipei City, Shilin District of Taipei City, Beitou District of Taipei City, Banqiao District of New Taipei City, Sanchong District of New Taipei City, Zhonghe District of New Taipei City, Xinzhuang District of New Taipei City, Tamsui District of New Taipei City, Luzhou District of New Taipei City, Linkou District of New Taipei City, Taoyuan City of Taoyuan County, Zhongli City of Taoyuan County, Zhubei City of Hsinchu County, East District of Hsinchu City, North District of Hsinchu City, South District of Taichung City, Xitun District of Taichung City, Nantun District of Taichung City, Beitun District of Taichung City, North District of Tainan City, Gushan District of Kaohsiung City, Zuoying District of Kaohsiung City, Fengshan District of Kaohsiung City |

Xindian District of New Taipei City, Shulin District of New Taipei City, Yingge District of New Taipei City, Sanxia District of New Taipei City, Xizhi District of New Taipei City, Tucheng District of New Taipei City, Taishan District of New Taipei City, Yangmei City of Taoyuan County, Luzhu Township of Taoyuan County, Dayuan Township of Taoyuan County, Guishan Township of Taoyuan County, Bade City of Taoyuan County, Longtan Township of Taoyuan County, Pingzhen City of Taoyuan County, Zhudong Township of Hsinchu County, Hukou Township of Hsinchu County, Xinfeng Township of Hsinchu County, Qionglin Township of Hsinchu County, Baoshan Township of Hsinchu County, Xiangshan District of Hsinchu City, Zhunan Township of Miaoli County, Toufen Township of Miaoli County, Fengyuan District of Taichung City, Shalu District of Taichung City, Wuqi District of Taichung City, Tanzi District of Taichung City, Daya District of Taichung City, Wuri District of Taichung City, Longjing District of Taichung City, Taiping District of Taichung City, Dali District of Taichung City, Shanhua District of Tainan City, Rende District of Tainan City, Guiren District of Tainan City, Yongkang District of Tainan City, Annan District of Tainan City, Anping District of Tainan City, Nanzi District of Kaohsiung City, Xiaogang District of Kaohsiung City, Daliao District of Kaohsiung City, Dashe District of Kaohsiung City , Renwu District of Kaohsiung City, Niaosong District of Kaohsiung City, Gangshan District of Kaohsiung City
Zhongzheng District of Keelung City, Qidu District of Keelung City, Nuannuan District of Keelung City, Renai District of Keelung City, Zhongshan District of Keelung City, Anle District of Keelung City, Xinyi District of Keelung City, Wugu District of New Taipei City, Shenkeng District of New Taipei City, Bali District of New Taipei City, Miaoli City of Miaoli County, East District of Taichung City, Changhua City of Changhua County, Yuanlin Township of Changhua County, Douliu City of Yunlin County, East District of Chiayi City, West District of Chiayi City, Xinying District of Tainan City, South District of Tainan City, Qianzhen District of Kaohsiung City, Qijin District of Kaohsiung City, Pingtung City of Pingtung County, Yilan City of Yilan County, Luodong Township of Yilan County, Hualien City of Hualien County, Ji'an Township of Hualien County
Ruifang District of New Taipei City, Sanzhi District of New Taipei City, Shimen District of New Taipei City, Jinshan District of New Taipei City, Wanli District of New Taipei City, Daxi Township of Taoyuan County, Xinwu Township of Taoyuan County, Guanyin Township of Taoyuan County, Xinpu Township of Hsinchu County, Guanxi Township of Hsinchu County, Hengshan Township of Hsinchu County, Beipu Township of Hsinchu County, Yuanli Township of Miaoli County, Tongxiao Township of Miaoli County, Houlong Township of Miaoli County, Gongguan Township of Miaoli County, Tongluo Township of Miaoli County, Touwu Township of Miaoli County, Sanyi Township of Miaoli County, Zaoqiao Township of Miaoli County, Sanwan Township of Miaoli County, Dajia District of Taichung City, Qingshui District of Taichung City, Houli District of Taichung City, Shengang District of Taichung City, Shigang District of Taichung City, Waipu District of Taichung City, Da'an District of Taichung City, Dadu District of Taichung City, Wufeng District of Taichung City, Lugang Township of Changhua County, Hemei

Township of Changhua County, Xianxi Township of Changhua County, Shengang Township of Changhua County, Fuxing Township of Changhua County, Xiushui Township of Changhua County, Huatan Township of Changhua County, Fenyuan Township of Changhua County, Xihu Township of Changhua County, Tianzhong Township of Changhua County, Datsuen Township of Changhua County, Puyan Township of Changhua County, Puxin Township of Changhua County, Yongjing Township of Changhua County, Shetou Township of Changhua County, Beidou Township of Changhua County, Pitou Township of Changhua County, Nantou City of Nantou County, Puli Township of Nantou County, Caotun Township of Nantou County ,Dounan Township of Yunlin County, Huwei Township of Yunlin County, Linnei Township of Yunlin County, Taibao City of Chiayi County, Minxiong Township of Chiayi County, Shuishang Township of Chiayi County, Zhongpu Township of Chiayi County, Yanshui District of Tainan City, Liuying District of Tainan City, Madou District of Tainan City, Xiaying District of Tainan City, Liujia District of Tainan City, Guantian District of Tainan City, Jiali District of Tainan City, Xuejia District of Tainan City, Xigang District of Tainan City, Qigu District of Tainan City, Jiangjun District of Tainan City, Beimen District of Tainan City, Xinhua District of Tainan City, Xinshi District of Tainan City, Anding District of Tainan City, Shanshang District of Tainan City, Guanmiao District of Tainan City, Linyuan District of Kaohsiung City, Dashu District of Kaohsiung City, Qiaotou District of Kaohsiung City, Yanchao District of Kaohsiung City, Alian District of Kaohsiung City, Luzhu District of Kaohsiung City, Hune District of Kaohsiung City, Jiading District of Kaohsiung City, Yongan District of Kaohsiung City, Mituo District of Kaohsiung City, Ziguan District of Kaohsiung City, Chaozhou Township of Pingtung County, Donggang Township of Pingtung County, Hengchun Township of Pingtung County, Wandan Township of Pingtung County, Changzhi Township of Pingtung County, Linluo Township of Pingtung County, Jiuru Township of Pingtung County, Neipu Township of Pingtung County, Xinyuan Township of Pingtung County, Su'ao Township of Yilan County, Toucheng Township of Yilan County, Jiaoxi Township of Yilan County, Zhuangwei Township of Yilan County, Yuanshan Township of Yilan County, Dongshan Township of Yilan County, Wujie Township of Yilan County, Taitung City of Taitung County
Shiding District of New Taipei City, Pinglin District of New Taipei City, Pingxi District of New Taipei City, Shuangxi District of New Taipei City, Gongliao District of New Taipei City, Emei Township of Hsinch County, Zhuolan Township of Miaoli County, Dahu Township of Miaoli County, Nanzhuang Township of Miaoli County, Xihu Township of Miaoli County, Shitan Township of Miaoli County, Tai'an Township of Miaoli County, Dongshi District of Taichung City, Xinshe District of Taichung City, Heping District of Taichung City, Ershui Township of Changhua County, Erlin Township of Changhua County, Tianwei Township of Changhua County, Fangyuan Township of Changhua County, Dacheng Township of Changhua County, Zhutang Township of Changhua County, Xizhou Township of Changhua County, Zhushan Township of Nantou County, Jiji Town of Nantou County, Mingjian Township of Nantou County, Lugu Township of Nantou County, Zhongliao Township of Nantou County, Yuchi Township of Nantou County, Guoshing Township of Nantou County, Shuili Township of Nantou County, Xinyi Township of Nantou County, Xiluo Township of Yunlin County, Tuku

Township of Yunlin County, Beigang Township of Yunlin County, Gukeng Township of Yunlin County, Dapi Township of Yunlin County, Citong Township of Yunlin County, Erlun Township of Yunlin County, Lunbei Township of Yunlin County, Dongshi Township of Yunlin County, Baozhong Township of Yunlin County, Taixi Township of Yunlin County, Yuanchang Township of Yunlin County, Sihu Township of Yunlin County, Kouhu Township of Yunlin County, Shuilin Township of Yunlin County, Puzi City of Jiayi County, Budai Township of Jiayi County, Dalin Township of Chiayi County, Xikou Township of Chiayi County, Xingang Township of Chiayi County, Liujiao Township of Chiayi County, Dongshi Township of Chiayi County, Yizhu Township of Chiayi County, Lucao Township of Chiayi County, Zhuqi Township of Chiayi County, Meishan Township of Chiayi County, Fanlu Township of Chiayi County, Baihe District of Tainan City, Houbi District of Tainan City, Dongshan District of Tainan City, Danei District of Tainan City, Yujing District of Tainan City, Nanxi District of Tainan City, Nanhua District of Tainan City, Zuozhen District of Tainan City, Longqi District of Tainan City, Tianliao District of Kaohsiung City, Qishan District of Kaohsiung City, Meinong District of Kaohsiung City, Liugui District of Kaohsiung City, Jiaxian District of Kaohsiung City, Shanlin District of Kaohsiung City, Neimen District of Kaohsiung City, Ligang Township of Pingtung County, Yanpu Township of Pingtung County, Gaoshu Township of Pingtung County, Wanluan Township of Pingtung County, Zhutian Township of Pingtung County, Xinpi Township of Pingtung County, Fangliao Township of Pingtung County, Kanding Township of Pingding Township, Linbian Township of Pingtung County, Nanzhou Township of Pingtung County, Jiadong Township of Pingtung County, Checheng Township of Pingtung County, Manzhou Township of Pingtung County, Fangshan Township of Pingtung County, Huxi Township of Penghu County, Baisha Township of Penghu County, Xiyu Township of Penghu County, Wangan Township of Penghu County, Qimei Township of Penghu County, Sanxing Township of Yilan County, Fenglin Township of Hualien County, Yuli Township of Hualien County, Shoufeng Township of Hualien County, Guangfu Township of Hualien County, Fengbin Township of Hualien County, Ruisui Township of Hualien County, Fuli Township of Hualien County, Chenggung Township of Taitung County, Guanshan Township of Taitung County, Beinan Township of Taitung County, Luye Township of Taitung County, Chishang Township of Taitung County, Donghe Township of Taitung County, Changbin Township of Taitung County, Taimaili Township of Taitung County
Wulai District of New Taipei City, Fuxing Township of Taoyuan County, Jianshi Township of Hsinchu County, Wufeng Township of Hsinchu County, Renai Township of Nantou County, Mailiao Township of Yunlin County, Dapu Township of Chiayi County, Alishan Township of Chiayi County, Maolin District of Kaohsiung City, Taoyuan District of Kaohsiung City, Namaxia District of Kaohsiung City, Liuqiu Township of Pingtung County, Sandimen Township of Pingtung County, Wutai Township of Pingtung County, Majia Township of Pingtung County, Taiwu Township of Pingtung County, Laiyi Township of Pingtung County, Chunri Township of Pingtung County, Shizi Township of Pingtung County , Mudan Township of Pingtung County, Magong City of Penghu County, Datong Township of Yilan County, Nan'ao Township of Yilan County, Xincheng Township of Hualien County, Xiulin Township of

Hualien County, Wanrong Township of Hualien County, Zhuoxi Township of Hualien County, Dawu Township of Taitung County, Ludao Township of Taitung County, Haiduan Township of Taitung County, Yanping Township of Taitung County, Jinfeng Township of Taitung County, Daren Township of Taitung County, Lanyu Township of Taitung County

Table 2 Geographic Stratifications

| Geographic Area | Level Code | Combined Level Code |
| :---: | :---: | :---: |
|  | 1 | 1 |
|  | 2 | 2 |
|  | 3,4 | 3 |
| Taoyuan, Hsinchu, <br> Miaoli | $5,6,7$ | 4 |
|  | 1,2 | 1 |
|  | 3,4 | 2 |
| Nantou | $5,6,7$ | 3 |
|  | 1,2 | 1 |
|  | 3,4 | 2 |
| Yunlin, Chiayi, Tainan | 5 | 3 |
|  | 6,7 | 4 |
|  | $1,2,3$ | 1 |
| Kaohsiung, Pingtung, | 4,5 | 2 |
| Penghu | 6,7 | 3 |
|  | 1,2 | 1 |
|  | 3,4 | 2 |
| Hualien, Taitung | $5,6,7$ | 3 |
|  | 4,5 | 1 |
|  | 6,7 | 2 |

## (1) Pilot Test

A stratified three-stage probability proportional to size sampling was adopted for the pre-test interviews. Since not many completed samples were expected during the pretest, the stratification system used in this project's formal survey was adjusted in order to meet the project deadline and save survey costs. With the Hualien and Taitung area excluded, only one geographic stratum was sampled within each of the five geographic areas: "Taipei City, New Taipei City, Keelung, Yilan," "Taoyuan, Hsinchu, Miaoli," "Taichung, Changhua, Nantou," "Yunlin, Chiayi, Tainan," and "Kaohsiung, Pingtung, Penghu." Once the proportions of population in the geographic areas were calculated based on the demographic data provided by the Ministry of the Interior at the end of December 2018, the numbers of samples for all geographic areas
were determined based on the proportions, with the numbers of townships and the expected number of completed samples within every township adjusted. The actual number of successful samples is 30 .

## (2) Formal survey

Prior to conducting the formal survey, the proportions of population in the geographic areas were calculated based on demographic data provided by the Ministry of the Interior at the end of December 2018, and the number of samples for all geographic areas were determined based on the proportions, with the number of townships and the expected number of completed samples within every township adjusted. Consequently, a total of 1,100 samples were expected to be completed in each of the four investigations. In view of the small population and extremely uneven distribution of population in the Hualien and Taitung area, stratified two-stage PPS (probabilities proportional to size) sampling was actually used, while stratified threestage PPS sampling was used in other areas. During the third stage, a survey point was set up at gathering places (such as village office, activity center, and market) in the townships selected to conduct the survey with local residents.

The sampling units in each stage are explained as below.

- During two-stage sampling, the primary sampling units were "township" and then "people." All of the "districts and townships" in the geographic stratum were included.
- During three-stage sampling, the primary sampling units were "townships," and the second sampling units were "villages." The last sampling units were "people."

During the implementation of the survey, the gender and age structures of all communities were strictly controlled with the view to ensuring that the structure of the survey results is similar to that of the target population. In case of any inconsistency between obtained samples and the population, the results were weighted based on variables like gender, age, and community. The weighted sample number in every age group could not exceed the original sample number by 60 percent.

## (3) Allocation of samples

To meet the request of the agency that commissioned this project, at least 1,100 valid samples were investigated in each questionnaire with a sampling error of within $\pm 3$ percent at a 95 percent confidence level.

Table 3 Plan for Allocation of Samples at Survey Sites in All Communities

| Geographic stratum | Level | No. of People Aged 16 and above | Population Percentage | Planned Allocation of Samples | No. of Townships and Districts Selected | No. of Villages Selected | Expected No. of Samples by Village | Total No. of Samples by Village |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Taipei City, <br> New Taipei City, Keelung, Yilan | Level 1 | 1,229,181 18.98\% |  | $67$ | $3$ | $2$ | $11$ | 6 |
|  | Level 2 | 3,193,854 | 49.32\% | 174 | 7 | 2 | 12 | 14 |
|  | Level 3 | 1,648,552 | 25.46\% | 90 | 4 | 2 | 11 | 8 |
|  | Level 4 | 404,406 | 6.24\% | 22 | 1 | 2 | 11 | 2 |
|  | Subtotal | 6,475,993 | 32.10\% | 353 | 14 |  |  | 30 |
| Taoyuan, Hsinchu, Miaoli | Level 1 | 1,157,116 | 36.61\% | 63 | 3 | 2 | 11 | 6 |
|  | Level 2 | 1,480,087 | 46.83\% | 81 | 3 | 2 | 13 | 6 |
|  | Level 3 | 523,555 | 16.56\% | 29 | 1 | 2 | 14 | 2 |
|  | Subtotal | 3,160,758 | 15.67\% | 172 | 7 |  |  | 14 |
| Taichung, <br> Changhua, Nantou | Level 1 | 914,020 | 23.40\% | 50 | 2 | 2 | 12 | 4 |
|  | Level 2 | 1,276,263 | 32.68\% | 70 | 3 | 2 | 12 | 6 |
|  | Level 3 | 1,278,250 | 32.73\% | 70 | 3 | 2 | 12 | 6 |
|  | Level 4 | 437,235 | 11.19\% | 24 | 1 | 2 | 12 | 2 |
|  | Subtotal | 3,905,768 | 19.36\% | 213 | 9 |  |  | 18 |
| Yunlin, Chiayi, Tainan | Level 1 | 926,449 | 31.73\% | 51 | 2 | 2 | 13 | 4 |
|  | Level 2 | 1,215,361 | 41.63\% | 66 | 2 | 2 | 17 | 4 |
|  | Level 3 | 777,832 | 26.64\% | 42 | 2 | 2 | 11 | 4 |
|  | Subtotal | 2,919,642 | 14.47\% | 159 | 6 |  |  | 12 |
| Kaohsiung, <br> Pingtung, <br> Penghu | Level 1 | 1,132,289 | 34.97\% | 62 | 2 | 2 | 15 | 4 |
|  | Level 2 | 989,921 | 30.57\% | 54 | 2 | 2 | 13 | 4 |
|  | Level 3 | 1,115,675 | 34.46\% | 61 | 2 | 2 | 15 | 4 |
|  | Subtotal | 3,237,885 | 16.05\% | 177 | 6 |  |  | 12 |
| Hualien, <br> Taitung | Level 1 | 251,882 | 52.86\% | 14 | 1 | 1 | 14 | 1 |
|  | Level 2 | 224,652 | 47.14\% | 12 | 1 | 1 | 12 | 1 |
|  | Subtotal | 476,534 | 2.36\% | 26 | 2 |  |  | 2 |
| Total |  | 20,176,580 | 100.00\% | 1,100 |  |  |  | 88 |

Since the original allocation of the survey site sampling is based on proportions of the entire population, calculated decimal numbers had to be rounded to the nearest integers when the survey was actually performed. Moreover, to meet a specific requirement this year that the number of weighted samples in every age group must not exceed the original number of samples by 60 percent, the samples were allocated and adjusted accordingly in this project. The adjusted allocation of survey site sampling is shown in the table below.

Table 4 Plan for Allocation of Samples at Survey Sites in All Communities after Adjustment by Age

|  |  |  |  | Originally Planned Allocation of Samples at Survey Sites |  |  |  |  | First adj | justment | Adjustment of Site Allocation Based on Age Distribution in the Population (Expected No. by Site) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Geographic stratum | Level | No. of People Aged 16 and above | Population <br> Percentage | Planned Allocation of Samples | No. of Townships and Districts Selected | No. of Villages Selected | Expected <br> No. of Samples by Village | Total No. of Samples by Village | Expected No. of Samples by Level | Expected No. of Samples by Level | Expected No. of Samples with Ages 16-25 | Expected No. of Samples with Ages $26-35$ | Expected <br> No. of <br> Samples <br> with Ages <br> 36-45 | Expected No. of Samples with Ages $46-55$ | Expected <br> No. of Samples with Ages 56-65 | Expected <br> No. of <br> Samples <br> with Ages <br> 66 and <br> Above | Expected <br> No. of <br> Samples by Village | Expected No. of Completed Samples in Each Level by Age Group |
|  | Level 1 | 1,229,181 | 18.98\% | 67 | 3 | 2 | 211 | 6 | 66 | 66 |  | 2 | 2 | 2 | 2 | 2 | 11 | 66 |
| Taipei City, | Level 2 | 3,193,854 | 49.32\% | 174 | 7 | 2 | 212 | 14 | 168 | 170 |  | 2 | 2 | 2 | 2 | 2 | 12 | 168 |
|  | Level 3 | 1,648,552 | 25.46\% | 90 | 4 |  | 211 | 8 | 88 | 88 |  | 2 | 2 | 2 | 2 | 1 | 11 | 88 |
| City, Keelung, <br> Yilan | Level 4 | 404,406 | 6.24\% | 22 | 1 |  | 211 | 2 | 22 | 24 |  | 2 | 2 | 3 | 2 | 1 | 12 | 24 |
|  | Subtotal | 6,475,993 | 32.10\% | 353 | 14 |  |  | 30 | 344 | 348 |  |  |  |  |  |  |  | 346 |
|  | Level 1 | 1,157,116 | 36.61\% | 63 | 3 |  | 211 | 6 | 66 | 66 |  | 2 | 2 | 2 | 2 | 1 | 11 | 66 |
| Taoyuan, | Level 2 | 1,480,087 | 46.83\% | 81 | 3 | 2 | 213 | 6 | 78 | 78 |  | , | 2 | 2 | 2 | 1 | 13 | 78 |
| Hsinchu, Miaoli | Level 3 | 523,555 | 16.56\% | 29 | 1 | 2 | 214 | 2 | 28 | 28 |  | 3 | 2 | 3 | 2 | 1 | 14 | 28 |
|  | Subtotal | 3,160,758 | 15.67\% | 172 | 7 |  |  | 14 | 172 | 172 |  |  |  |  |  |  |  | 172 |
|  | Level 1 | 914,020 | 23.40\% | 50 | 2 |  | 212 | 4 | 48 | 48 |  | 2 | 2 | 3 | 2 | 1 | 12 | 48 |
| Taichung, | Level 2 | 1,276,263 | 32.68\% | 70 | 3 |  | 212 | 6 | 72 | 72 |  | 2 | 2 | 2 | 2 | 2 | 12 | 72 |
| Changhua, | Level 3 | 1,278,250 | 32.73\% | 70 | 3 |  | 212 | 6 | 72 | 72 |  | 2 | 2 | 2 | 2 | 2 | 12 | 72 |
| Nantou | Level 4 | 437,235 | 11.19\% | 24 | 1 | 2 | 212 | 2 | 24 | 24 |  | -3 | 2 | 2 | 2 | 1 | 12 | 24 |
|  | Subtotal | 3,905,768 | 19.36\% | 213 | 9 |  |  | 18 | 216 | 216 |  |  |  |  |  |  |  | 216 |
|  | Level 1 | 926,449 | 31.73\% | 51 | 2 | 2 | 213 | 4 | 52 | 52 |  | 3 | 2 | 2 | 2 | 1 | 13 | 52 |
| Yunlin, Chiayi, | Level 2 | 1,215,361 | 41.63\% | 66 | 2 | 2 | 217 | 4 | 68 | 68 |  | - 3 | 3 | 3 | 3 | 3 | 17 | 68 |
| Tainan | Level 3 | 777,832 | 26.64\% | 42 | 2 | 2 | 211 | 4 | 44 | 44 |  | 1 | 2 | 3 | 2 | 2 | 11 | 44 |
|  | Subtotal | 2,919,642 | 14.47\% | 159 | 6 |  |  | 12 | 164 | 164 |  |  |  |  |  |  |  | 164 |
|  | Level 1 | 1,132,289 | 34.97\% | 62 | 2 | 2 | 215 | 4 | 60 | 60 |  | 3 | 2 | 3 | 2 | 2 | 15 | 60 |
| Kaohsiung, | Level 2 | 989,921 | 30.57\% | 54 | 2 | 2 | 213 | 4 | 52 | 54 |  | 3 | 3 | 2 | 2 | 2 | 14 | 56 |
| Penghu | Level 3 | 1,115,675 | 34.46\% | 61 | 2 | 2 | 215 | 4 | 60 | 60 |  | 3 | 3 | 2 | 2 | 2 | 15 | 60 |
|  | Subtotal | 3,237,885 | 16.05\% | 177 | 6 |  |  | 12 | 172 | 174 |  |  |  |  |  |  |  | 176 |
|  | Level 1 | 251,882 | 52.86\% | 14 | 1 | 1 | 1 | 1 | 14 | 14 |  | 3 | 3 | 3 | 2 | 1 | 14 | 14 |
| Hualien, Taitung | Level 2 | 224,652 | 47.14\% | 12 | 1 | 1 | $1 \quad 12$ | 1 | 12 | 12 |  | 3 | 2 | 2 | 2 | 1 | 12 | 12 |
|  | Subtotal | 476,534 | 2.36\% | 26 | 2 |  |  | 2 | 26 | 26 |  |  |  |  |  |  |  | 26 |
| Total |  | 20,176,580 | 100.00\% | 1,100 |  |  |  | 88 | 1,094 | 1,100 |  |  |  |  |  |  |  | 1,100 |

## 3. Survey period

The interviews took place in the selected areas between June 1 and July 31, 2019.

Table 5 Implementation of Formal Sampling

| Sampling Frame |  | Selected | By Survey Site | By Survey Site |
| :---: | :---: | :---: | :---: | :---: |
| Area | Level | District or Township for Survey | No. of Expected Samples ( $\mathbf{1 , 1 6 0}$ samples in total) | No. of Completed Samples (1,160 samples in total) |
| Taipei City, New Taipei City, Keelung, Yilan | Level 1 | Yonghe District of New Taipei City | 22 | 21 |
|  |  | Wanhua District of Taipei City | 22 | 22 |
|  |  | Songshan District of Taipei City | 22 | 22 |
|  | Level 2 | Sanchong District of New Taipei City | 24 | 25 |
|  |  | Banqiao District of New Taipei City | 24 | 24 |
|  |  | Beitou District of Taipei City | 24 | 24 |
|  |  | Neihu District of Taipei City | 24 | 24 |
|  |  | Shilin District of Taipei City | 24 | 26 |
|  |  | Zhonghe District of New Taipei City | 24 | 24 |
|  |  | Zhongshan <br> District of Taipei City | 24 | 26 |
|  | Level 3 | Renai District of Keelung City | 22 | 22 |
|  |  | Bali District of New Taipei City | 22 | 22 |
|  |  | Xinyi District of Keelung City | 22 | 25 |
|  |  | Xindian District of New Taipei City | 22 | 23 |
|  | Level 4 | Dongshan Township of Yilan County | 24 | 23 |
|  |  | Subtotal | 346 | 353 |
| Taoyuan, Hsinchu, Miaoli | Level 1 | Zhubei City of Hsinchu County | 22 | 23 |
|  |  | Zhongli City of Taoyuan County | 22 | 22 |
|  |  | Taoyuan District of Taoyuan City | 22 | 23 |


| Sampling Frame |  | Selected | By Survey Site | By Survey Site |
| :---: | :---: | :---: | :---: | :---: |
| Area | Level | District or Township for Survey | No. of Expected Samples (1,160 samples in total) | No. of Completed Samples (1,160 samples in total) |
|  | Level 2 | Bade City of Taoyuan County | 26 | 26 |
|  |  | Xiangshan District of Hsinchu City | 26 | 26 |
|  |  | Zhudong <br> Township of Hsinchu County | 26 | 26 |
|  | Level 3 | Shitan Township of Miaoli County | 28 | 30 |
|  |  | Subtotal | 172 | 176 |
| Taichung, Changhua, Nantou | Level 1 | Xitun District of Taichung City | 24 | 23 |
|  |  | West District of Taichung City | 24 | 23 |
|  | Level 2 | Dali District of Taichung City | 24 | 22 |
|  |  | Fengyuan District of Taichung City | 24 | 22 |
|  |  | Daya District of Taichung City | 24 | 27 |
|  | Level 3 | Fuxing Township of Changhua County | 24 | 24 |
|  |  | Shengang District of Taichung City | 24 | 17 |
|  |  | Xianxi Township of Changhua County | 24 | 25 |
|  | Level 4 | Yuchi Township of Nantou County | 24 | 23 |
|  |  | Subtotal | 216 | 206 |
| Yunlin, <br> Chiayi, <br> Tainan | Level 1 | Anping District of Tainan City | 26 | 28 |
|  |  | East District of Tainan City | 26 | 24 |
|  | Level 2 | East District of Chiayi City | 34 | 34 |
|  |  | Dounan Township of Yunlin County | 34 | 34 |
|  | Level 3 | Dalin Township of Chiayi County | 22 | 22 |
|  |  | Xiluo Township of Yunlin County | 22 | 22 |
|  |  | Subtotal | 164 | 164 |
| $\begin{gathered} \text { Kaohsiung, } \\ \text { Pingtung, } \\ \text { Penghu } \end{gathered}$ | Level 1 | Qianzhen District of Kaohsiung City | 30 | 30 |
|  |  | Zuoying District | 30 | 30 |


| Sampling Frame |  | Selected <br> District or <br> Township for <br> Survey | By Survey Site <br> No. of Expected Samples ( $\mathbf{1 , 1 6 0}$ samples in total) | By Survey Site <br> No. of Completed Samples (1,160 <br> samples in total) |
| :---: | :---: | :---: | :---: | :---: |
| Area | Level |  |  |  |
|  |  | of Kaohsiung City |  |  |
|  | Level 2 | Renwu District of Kaohsiung City | 28 | 28 |
|  |  | Niaosong District of Kaohsiung City | 28 | 27 |
|  | Level 3 | Chaozhou <br> Township of Pingtung County | 30 | 30 |
|  |  | Magong Township of Penghu County | 30 | 30 |
|  |  | Subtotal | 176 | 175 |
| Hualien, Taitung | Level 1 | Hualien City of Hualien County | 14 | 14 |
|  | Level 2 | Luye Township of <br> Taitung County | 12 | 12 |
|  |  | Subtotal | 26 | 26 |
| Kinmen, <br> Matsu |  | inmen County | 30 | 30 |
|  |  | njiang County | 30 | 30 |
|  |  | Subtotal | 60 | 60 |
| Grand total |  |  | 1,160 | 1,160 |

The differences between the actual number of completed samples and the planned number of samples at survey sites are explained as below:
(1) This survey was completely implemented as planned in terms of sites and allocation of samples. However, due to reasons like age control and people's willingness to be interviewed at different sites, fewer survey samples were completed than expected at several sites.
(2) Although fewer samples were collected than planned at some sites, samples of all areas were verified to represent the population in terms of distribution, through a test prior to weighting (See Table 6).
(3) Table 6 shows the planned numbers of samples and the actual numbers of valid samples completed by interviewers at selected sites. These numbers are representative prior to weighting. However, the survey analysis and results adopted by this report were tested and weighted based on the registered domicile of interviewees and the data of the entire population. Since the survey did not limit the interviewees to those with their domicile registered where they received the interview and the survey was simultaneously conducted in Taiwan proper, Kinmen and Matsu this year, all the data were consolidated, tested, weighted and grouped based on the registered domicile of the interviewees.

Table 6 Contingency Table for Broadcasting Market Survey Site before Weighting

| Allocation of Survey Site No. | Allocation of Samples |  | No. of Samples before Weighting |  | Chi-Square Test before Weighting |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of People | Percentage | No. of People | Percentage |  |
| Total | 1,100 | 100.0\% | 1,100 | 100.0\% |  |
| Survey Site |  |  |  |  | The Chi-square value is 0.000 , and p -value ( $=$ 0.983 ) is below the accepted significance level of $5 \%$, meaning no significant difference between the distribution of samples and the original allocation of samples. |
| Taipei City, New Taipei City, Keelung, Yilan | 346 | 31.5\% | 353 | 32.1\% |  |
| Taoyuan, <br> Hsinchu, <br> Miaoli | 172 | 15.6\% | 176 | 16.0\% |  |
| Taichung, Changhua, Nantou | 216 | 19.6\% | 206 | 18.7\% |  |
| Yunlin, <br> Chiayi, <br> Tainan | 164 | 14.9\% | 164 | 14.9\% |  |
| Kaohsiung, <br> Pingtung, Penghu | 176 | 16.0\% | 175 | 15.9\% |  |
| Hualien, Taitung | 26 | 2.4\% | 26 | 2.4\% |  |

## C. Implementation of Survey

## 1. Timeline

Before the survey was formally launched, preparations for questionnaires and related affairs were undertaken from April. After the questionnaires were modified based on the conclusions from the meeting with the agency that commissioned this study, the survey formally began on June 1, 2019. The timeline was:
(1) Preparation period: April 1 to May 24, 2019
(2) Survey period:

Phase 1: May 20 to May 23, 2019.
Phase 2: June 1 to July 31, 2019.
(3) Review period: July 30 to August 4, 2019

## 2. Survey method

Face-to-face interviews were employed for this survey; a computer-assisted interview survey system was used during the interview, and was supplemented with printed questionnaires.

## 3. Statistical analysis method

(1) Sample representativeness and weighting

After the survey results were reviewed, the NPAR Chi-square test was used to examine the difference between the allocation of samples and the structure of the population in terms of age, gender, and population percentage, to enhance the representativeness and reliability of the survey so that these samples could reflect the population structure. In case a significant difference in structure was identified between the samples and the population. Weighting was used to make the sample structure identical to that of the population.

About weighting, the raking method was used to adjust the sampling weights based on variables in the order of gender, age and area of registered household until no significant difference existed between the allocation of samples and the population in every variable.

All the data in the results were multiplied by the adjustment weight. $\frac{N_{i}}{N} / \frac{n_{i}^{\prime}}{n}$,
$N_{i}$ and ${ }^{n_{i}^{\prime}}$ represent the number of the population and the number of sample population weighted in the Cross Group ${ }^{i}$, while N and n represent the number of the total population and the number of the total sample population weighted. This way, the sampling distribution was completely the same as the population distribution after weighting. The last weight was gained by multiplying all the adjustment weights.

## (2) Reliability analysis

Reliability refers to trustworthiness or consistency of a survey. Namely, when the survey is performed under the same or similar conditions, consistent or stable results can be obtained. Cronbach's (1951) $\alpha$ reliability coefficient is currently the most used reliability indicator. Nunnally (1967) suggests that a reliability of 0.7 or higher, also known as high reliability, is acceptable.

## (3) Frequency

How people understand and rate each of the aspects can be realized through the data presented in allocation of frequencies and percentages in all questions.

## (4) Cross analysis and Chi-square test

A cross analysis table was established with the basic data for "all the issues" to realize whether a difference existed between the respondents with different backgrounds in all the issues. Pearson's Chi-square test was used in the cross table. The Chi-square test value ( W ) is defined as below:

$$
\mathrm{W}=\sum_{i=1}^{r} \sum_{j=1}^{c} \frac{\left(O_{i j}-E_{i j}\right)^{2}}{E_{i j}} \sim \chi^{2}((r-1)(c-1))
$$

${ }^{\mathrm{ij}}$ is the observed frequency from Row j , Column i , and

## $E_{i j}$

is the expected frequency from Row j, Column i.
When p-value in the Chi-square test is less than 0.05 , the two variables are not independent at a $95 \%$ confidence level. That is, a significant statistic difference exists between the respondents with different backgrounds in the issue.

## (5) Analysis of variance (ANOVA)

The total variation can be divided into the variation between groups and the variation within groups. Analysis of variance is used to calculate the rate of variation between groups to variation within groups. If the variation between groups is significantly greater than the variation within groups, significant differences among group means exist between two or more groups. If the variation between groups is not highly different from the variation within groups, few differences exist among groups. The ANOVA F-test calculations are as below.
$F=\frac{M S_{b}}{M S_{w}}=\frac{S S_{b} / k-1}{S S_{w} / n-k}$
, where n represents the number of samples and k represents the number of groups,
$S S_{b}=n \sum_{i=1}^{k}\left(\overline{\mathrm{X}}_{i}-\overline{\mathrm{X}}\right)^{2}$
is the total sum of squared deviations of group means from grand mean, and

$$
S S_{w}=\sum_{i=1}^{k} \sum_{j=1}^{n_{i}}\left(\mathrm{X}_{i j}-\overline{\mathrm{X}}_{i}\right)^{2}
$$

is the total sum of the squared deviations within groups.

## 4. Sample structure

As of August 4, 2019, the survey for this research has been implemented and reviewed by the research team, with 1,105 questionnaires completed ${ }^{1}$ as valid samples. The sample structure is shown in Table 7.

[^0]Table 7 Contingency Table for Broadcasting Market Survey Samples

| Population variables | Population |  | No. of Samples before Weighting |  | No. of Samples after Weighting |  | Chi-Square Test before Weighting | Chi-Square Test after Weighting |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of People | Percentage | No. of People | Percentage | No. of People | Percentage |  |  |
| Total | 20,176,580 | 100.0\% | 1,105 | 100.0\% | 1,105 | 100.0\% |  |  |
| Gender |  |  |  |  |  |  | The Chi-square value is 0.391 , | The Chi-square value is 0.000 , |
| Male | 9,940,336 | 49.3\% | 534 | 48.3\% | 544 | 49.3\% | and $p$-value $(=0.532)$ is below the accepted siginificance level of $5 \%$, meaning no significant | and $p$-value $(=0.999)$ is below the accepted siginificance level of $5 \%$, meaning no significant |
| Female | 10,236,244 | 50.7\% | 571 | 51.7\% | 561 | 50.7\% | difference between samples and the target population in distribution of gender. | difference between samples and the target population in distribution of gender. |
| Age |  |  |  |  |  |  | The Chi-square value is 12.879 , | The Chi-square value is 0.000 , |
| Age 16-25 | 2,946,481 | 14.6\% | 183 | 16.6\% | 161 | 14.6\% | and $p$-value $(=0.025)$ is below | and $p$-value $(=1.000)$ is below |
| Age 26-35 | 3,281,796 | 16.3\% | 195 | 17.6\% | 180 | 16.3\% | the accepted siginificance level | the accepted siginificance level |
| Age 36-45 | 3,877,239 | 19.2\% | 211 | 19.1\% | 212 | 19.2\% | of 5\%, meaning significant | of 5\%, meaning no significant |
| Age 46-55 | 3,618,661 | 17.9\% | 196 | 17.7\% | 198 | 17.9\% | difference between samples and | difference between samples and |
| Age 56-65 | 3,326,481 | 16.5\% | 187 | 16.9\% | 182 | 16.5\% | the target population in | the target population in |
| Age 66 and above | 3,125,922 | 15.5\% | 133 | 12.0\% | 171 | 15.5\% | distribution of age. | distribution of age. |
| City or County |  |  |  |  |  |  | The Chi-square value is 266.06 , and p -value $(=0.000)$ is below the accepted siginificance level of $5 \%$, meaning significant difference between samples and the target population in distribution of city and county. | The Chi-square value is 0.000 , and p -value ( $=1.000$ ) is below the accepted siginificance level of $5 \%$, meaning no significant difference between samples and the target population in distribution of city and county. |
| New Taipei City | 3,468,998 | 17.2\% | 158 | 14.3\% | 190 | 17.2\% |  |  |
| Taipei City | 2,282,576 | 11.3\% | 131 | 11.9\% | 125 | 11.3\% |  |  |
| Taoyuan City | 1,862,558 | 9.2\% | 69 | 6.2\% | 102 | 9.2\% |  |  |
| Taichung City | 2,369,481 | 11.7\% | 121 | 11.0\% | 130 | 11.7\% |  |  |
| Tainan City | 1,636,231 | 8.1\% | 49 | 4.4\% | 90 | 8.1\% |  |  |
| Kaohsiung City | 2,415,699 | 12.0\% | 122 | 11.0\% | 132 | 12.0\% |  |  |
| Yilan County | 396,388 | 2.0\% | 26 | 2.4\% | 22 | 2.0\% |  |  |
| Hsinch County | 459,988 | 2.3\% | 39 | 3.5\% | 25 | 2.3\% |  |  |
| Miaoli County | 474,519 | 2.4\% | 34 | 3.1\% | 26 | 2.4\% |  |  |
| Changhua County | 1,097,895 | 5.4\% | 51 | 4.6\% | 60 | 5.4\% |  |  |
| Nantou County | 438,392 | 2.2\% | 25 | 2.3\% | 24 | 2.2\% |  |  |
| Yilan County | 600,275 | 3.0\% | 57 | 5.2\% | 33 | 3.0\% |  |  |
| Chiayi County | 454,426 | 2.3\% | 35 | 3.2\% | 25 | 2.3\% |  |  |
| Pingtung County | 729,662 | 3.6\% | 35 | 3.2\% | 40 | 3.6\% |  |  |
| Taitung County | 191,014 | 0.9\% | 12 | 1.1\% | 10 | 0.9\% |  |  |
| Hualien County | 285,520 | 1.4\% | 17 | 1.5\% | 16 | 1.4\% |  |  |
| Penghu County | 92,524 | 0.5\% | 32 | 2.9\% | 5 | 0.5\% |  |  |
| Keelung City | 328,031 | 1.6\% | 45 | 4.1\% | 18 | 1.6\% |  |  |
| Hsinch City | 363,693 | 1.8\% | 23 | 2.1\% | 20 | 1.8\% |  |  |
| Chiayi City | 228,710 | 1.1\% | 24 | 2.2\% | 13 | 1.1\% |  |  |
| Note: The source of the population data is the 2018 December Demographic Data of Households in Each Village provided on the Open Data platformby by the Ministry of the Interior. |  |  |  |  |  |  |  |  |

Note: The numbers of samples by county or city shown in Table 7 were weighted based on the registered domicile and the consistency between numbers of samples before and after weighting was tested.

The change rate of the numbers of sample in all age groups after weighting is shown in Table 8 . They are all are in compliance with the requirement that no number of sample in any age group shall increase or reduce by more than $60 \%$ after weighting.

Table 8 Change Rate of the Numbers of Sample by Age Group after Weighting

| Population <br> variables | No. of Samples before <br> Weighting |  | No. of Samples after <br> Weighting |  | Change Rate of the <br> No. of Sample by |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | Percentage | No. of <br> People | Percentage | Weighting |  |
| Total | $\mathbf{1 , 1 0 5}$ | $\mathbf{1 0 0 . 0 \%}$ | $\mathbf{1 , 1 0 5}$ | $\mathbf{1 0 0 . 0 \%}$ |  |
| Age |  |  |  |  |  |
| Age 16-25 | 183 | $16.6 \%$ | 161 | $14.6 \%$ | 0.88 |
| Age 26-35 | 195 | $17.6 \%$ | 180 | $16.3 \%$ | 0.92 |
| Age 36-45 | 211 | $19.1 \%$ | 212 | $19.2 \%$ | 1.01 |
| Age 46-55 | 196 | $17.7 \%$ | 198 | $17.9 \%$ | 1.01 |
| Age 56-65 | 187 | $16.9 \%$ | 182 | $16.5 \%$ | 0.97 |
| Age 66 and above | 133 | $12.0 \%$ | 171 | $15.5 \%$ | 1.29 |

## D. Research Limitations

To keep on top of how Taiwanese people use communications in the digital economic era, a survey on the Broadband Usage trends in the communications industry was implemented by means of interviews with people aged 16 and over (those who were born on and before December 31, 2003) in Taiwan proper (exclusive of Kinmen County and Lian jiang County), at the request of the NCC. However, the following study limitations exist when actually performing the survey:

## 1. Sample frame limitations

Based on the requirements of the NCC, at least 1,100 successful samples were to be completed with the allocation of samples proportional to the population of every county or city.

In order to undertake rigorous sampling, research was conducted with reference to the sample structure used in Taiwan Social Change Survey by Academia Sinica. Nonetheless, it may be worth noting that this research differed from Taiwan Social Change Survey, where household registrations were used as a sampling frame. With no access to Taiwan's household registration database, a household survey seemed impossible. Instead, interviews were carried out at gathering places in townships or cities.

## 2. Sample recovery restrictions

The survey questionnaires contained 101 questions. In order to meet the requirement of at least 1,100 successful sample responses, groups of two interviewers were arranged at busy locations, such as parks and crossroads, to perform interviews.

During this survey, the average number of those who did not comply was 8.93 . Among the aged 55 and over groups, the average number of refusals was 9.89 , making it much harder to achieve the planned number of interviews when compared with young people. Even so, the interviewers were urged to obtain the required number of samples by gender and age, so the weighted number of all age groups would not exceed the original number of samples by $60 \%$.

## 3. Sample Inference Restrictions

After weighting, the sample number of young people, such as ages 16-25, was 0.88 times greater; the sample number of ages $26-35$ was 0.92 times greater; the sample number of ages $36-45$ was 1.01 times greater; the sample number of middleaged people such as ages $46-55$ was 1.01 times greater; the sample number of ages $56-65$ was 0.97 times greater; and the sample number of ages 66 and above was 1.29 times greater.

Non-probability sampling was employed in this research; therefore, care should be taken when using the resulting statistical inferences.

## III. Results

## A. Audiovisual Behaviors

## Audiovisual Behavior Q3

## 1. Overall Analysis

According to the survey results, $63.3 \%$ of the people over the age of 16 only watch TV, while 27.3 \% watch TV and listen to radio and only $1.5 \%$ listen to radio; $8 \%$ neither watch TV nor listen to radio (see Figure 1).


Figure 1 Those Who Watch TV or Listen to Radio
Base : $\mathrm{N}=1,105$, single-choice

## 2. Comparative Analysis

## (1) Analysis of regional differences

As far as the region is concerned, except for people in Kaohsiung, Pingtung and Penghu, who have the highest proportion of watching TV and listening to the radio ( $48.1 \%$ ), the other regions watch TV. Among them, the highest proportion of watching TV is in Yilan, Hualien, and Taitung (77.5\%), the lowest proportion of watching TV is in Taichung, Changhua, and Nantou (56.3\%).

## (2) Analysis of basic differences

When analyzed by gender, both men and women have the highest proportion of watching television, but women ( $65.6 \%$ ) are higher than men ( $60.8 \%$ ).

When analyzed by age, the majority of people in all age groups have the highest proportion of watching TV, with the highest rate of $71.4 \%$ in people aged 16-25 years old and the lowest rate of $55.5 \%$ in people aged $46-55$ years old.

When analyzed by marital status, the majority of people in all marital status have the highest proportion of watching TV, with the highest rate $67.1 \%$ of unmarried people and the lowest rate $60.4 \%$ of married people.
(3) Analysis of differences in social and economic status

The result of Chi-square tests indicates that people those who watch TV or listen to Radio significantly varies by housing tenure status.

When analyzed by housing tenure, home owners ( $62.8 \%$ ) and house renters ( $64.3 \%$ ) have the highest proportion of watching TV. People who watch TV and listen to radio with a higher rate $29.4 \%$ of home owners than that of $19.8 \%$ of house renters.

## Equipment Q4

## 1. Overall analysis

More than $93.9 \%$ of people over the age of 16 have TV sets in their homes, having one TV being the highest (50.9\%), followed by two TV sets (26.5\%) (see Figure 2)


Figure 2 Number of TV Sets at Home
Base : $\mathrm{N}=1,105$, single-choice

## 2. Comparative Analysis

## (1) Analysis of regional differences

The result of Chi-square tests indicates that the number of TV sets significantly varies by regions.

The majority of people in all of the regions have one TV set, the highest rate $58.8 \%$ in Taipei City, New Taipei City and Keelung and the lowest rate $36.2 \%$ in Yilan, Hualien, and Taitung. I People in Yilan, Hualien, and Taitung who have four TV sets ( $16.3 \%$ ) is especially higher than for other regions.
(2) Analysis of basic differences

When analyzed by gender, the highest proportions for both men (49.4\%) and women ( $52.3 \%$ ) have one TV set.

When analyzed by age, the majority of people in all age group have the highest proportion of having one TV, with a highest rate of $54.3 \%$ in $36-45$ year-olds and the lowest rate $44.5 \%$ of those 66 and over.

When analyzed by marital status, regardless of marital status, people have more than one TV, with the highest rate $51.4 \%$ of those married and the lowest rate $49.4 \%$ of those widowed or separated people.
(3) Analysis of differences in social and economic status

The result of Chi-square tests indicates that number of TV sets at home varies significantly by housing tenure status.

When analyzed by housing tenure, home owners (47.9\%) and house renters ( $60.6 \%$ ) have the highest rates of having one TV. More home owners (28.8\%) than house renters ( $18.2 \%$ ) have two TV sets.

## The Main Visual Platform Q9

1. Overall analysis

The most common platform for viewers in Taiwan is cable TV (56.1\%), followed by terrestrial TV (16.7\%) and Chunghwa Telecom's MOD (14.3\%) (see Figure 3).


Figure 3 Primary Visual Platform
Base : $\mathrm{N}=1,025$, single-choice ( except those people who don't know what kind of platform they watch )

## 2. Comparative Analysis

## (1) Analysis of regional differences

The result of Chi-square tests indicates that the primary video watching platform varies significantly by region.

When analyzed by region, cable TV is the most important platform in all regions, with the highest rate $63.4 \%$ in people in Kaohsiung, Pingtung and Penghu and the lowest rate $24.7 \%$ in people in Taoyuan, Hsinchu and Miaoli. Terrestrial TV is higher than other regions in Taoyuan, Hsinchu and Miaoli area, accounting for $21.5 \%$; OTT TV is lower in Taipei City, New Taipei City and Keelung area, accounting for 7.6\%.
(2) Analysis of basic differences

The Chi-square test shows that the primary video watching platform varies
significantly by age and marital status.
When analyzed by gender, both men ( $57.3 \%$ ) and women ( $54.9 \%$ ) choose cable TV as their primary source of viewing.

When analyzed by age, cable TV is the main source of viewing for all age groups, with the highest rate $66.7 \%$ of $55-65$ year-olds and the lowest rate of $39 \%$ of $16-25$ year-olds. In addition, the rate choosing OTT TV as their primary source of viewing decreases by age with the highest rate of $23.3 \%$ for $16-25$ year-olds and the lowest rate of $2.2 \%$ for 56-65 year-olds.

When analyzed by marital status, cable TV is the main source of viewing for all marital status, with the highest rate of $65.2 \%$ of those married and the lowest rate of $44.1 \%$ among those unmarried. In addition, the rate among those unmarried (17.5\%) choose OTT TV as their primary source of viewing is higher than for those widowed or separated. $27.4 \%$ of those widowed or separated choose terrestrial TV as their primary source of viewing, higher than those of other marital status groups.
(3) Analysis of differences in social and economic status

The result of Chi-square tests indicates that the primary video watching platform varies significantly by housing tenure and education level.

When analyzed by housing tenure, cable TV is the main source of viewing for both homeowners ( $58.4 \%$ ) and house renters ( $49.6 \%$ ). The rate of house renters $(18.8 \%)$ choose OTT TV as their primary source of viewing have a higher rate than home owners ( $7.9 \%$ ).

When analyzed by education level, cable TV is the main source of viewing for all education level, with the highest rate of $70.5 \%$ in the high school and secondary school group and the lowest rate of $46 \%$ in people with a master's degree or higher.

## Cable TV Subscription Service Q10 Q11 Q12

## 1. Overall analysis

Most cable TV subscribers do not purchase other channels (90.4\%) (see Figure 4). $49.2 \%$ do not know that cable TV has functions such as recording, pause, and rebroadcasting (see Figure 5). $66.7 \%$ say they do not use any value-added functions of cable TV. For value-added functions, more people use shopping (14.3\%) and recording programs (11.8\%) (see Figure 6).


Figure 4 Whether to Purchase other Channels of Cable TV Services
Base: $\mathrm{N}=669$, multiple-choice (people who use cable TV to watch TV programs)


Figure 5 Do You Know that Cable TV Provide Recording, Pausing, and Catch-up TV Programs?
Base: $\mathrm{N}=669$, single-choice (people watch TV programs via cable TV)


## Figure 6 Which Cable TV Features have been Used?

Base: $\mathrm{N}=340$, multiple-choice (people who know Cable TV has the functions of recording, pausing and catch-up TV programs)

## 2. Comparative Analysis

## (1) Analysis of regional differences

The result of Chi-square tests indicates that whether the public knows about the functions of recording, pausing, and catch-up on cable TV at home varies significantly by housing tenure.

The majority of people in all regions has the highest number of people who have not purchased other channels. Among them, the Yunlin, Chiayi, and Tainan region has the highest proportion of $95.1 \%$ and Taichung, Changhua and Nantou region has the lowest proportion of $86.3 \%$. Regarding whether the public know that cable TV has recording, pause and catch-up functions, a higher percentages of those who know is found in Taoyuan, Hsinchu and Miaoli (55.2\%) and Kaohsiung, Pingtung and Penghu ( $70.4 \%$ ), while the other areas have higher percentages of not knowing. Among them, Yilan, Hualien, and Taitung area have the highest proportion of $67.4 \%$ and Taipei City, New Taipei City and Keelung area have the lowest proportion of $51.3 \%$. Regarding the cable TV functions used by the public, not using any above functions is found the highest proportion in all regions, with the highest rate of $76.1 \%$ in Taipei City, New Taipei City and Keelung and the lowest rate of $52.3 \%$ in Kaohsiung, Pingtung and Penghu area.

## (2) Analysis of basic differences

The result of Chi-square tests indicates that whether the public knew the functions of recording, pausing, and catch-up of cable TV varies significantly by gender and age.

When analyzed by gender, in addition to subscribing to the basic channels, men ( $91.8 \%$ ) and women ( $89.1 \%$ ) are do not purchase additional channels. Regarding whether people know that cable TV at home has the functions of recording, pausing, and catch-up programs, $53.6 \%$ men know this, higher than the $51.9 \%$ women who know this. Regarding the functions of cable TV used by the public, men (70.5\%) and women ( $62.5 \%$ ) have the highest proportions of not using any function.

When analyzed by age, in addition to subscribing to the basic channel of cable TV, the majority of people in all age groups do not purchase additional channels, with the highest rate of $95.7 \%$ of $56-65$ year-olds and the lowest rate of $83.7 \%$ of $26-35$ year-olds.

Regarding whether the public know that cable TV can be used for recording, pausing, and catch-up programs, 46-55 year-olds (53.7\%), 56-65 year-olds (60.6\%) and those 66 and over ( $58.4 \%$ ) have a higher rate of not knowing, while the other age groups, 16-25 (61.7\%); 26-35 (60.3\%); and 36-45 (58.1\%), have higher rates of knowing. Regarding the functions of cable TV used by the public, the highest percentages of all age groups do not using these, with the highest rate $75.5 \%$ of 16-25 year-olds and the lowest rate $61.5 \%$ of 26-35 year-olds.

When analyzed by marital status, in addition to subscribing to the basic cable TV channels, the majority of people regardless of marital status have do not purchase other channels, with the highest rate $93.7 \%$ of widowed or separated people and the lowest rate $85.2 \%$ of those unmarried. Regarding whether the public know that cable TV can be used for recording, pausing, and catch-up programs, unmarried people ( $63.6 \%$ ) have a higher rate of knowing, and married people and those widowed or separated have a higher rate of not knowing. Regarding the functions of cable TV used by the public, all have a higher rate of not using regardless of marital status, with the highest rate $70.7 \%$ among those widowed or separated and the lowest rate $64.6 \%$ of those married.

## (3) Analysis of differences in social and economic status

The result of Chi-square tests indicates that whether the public know of the recording, suspending, and catch-up functions of cable TV varies significantly by gender and age.

When analyzed by education level, those with elementary school or lower education ( $72.7 \%$ ) and high school and secondary school education (82.7\%) have a higher proportions of not knowing, while the rest of the education level have higher proportion of knowing, with the highest rate of $75.4 \%$ in people with a master's degree or higher and the lowest rate of $54.2 \%$ in junior college group.

When analyzed by profession, people in agriculture, forestry, fishery and husbandry ( $69.9 \%$ ), people in the construction industry ( $71.3 \%$ ), people in the hospitality and catering ( $54.2 \%$ ), people in the public administration and national defense ( $56.1 \%$ ) and housekeepers ( $58.5 \%$ ) have a higher proportion of not knowing, while those of other occupations have a higher proportion of knowing, with the highest rate of $88.8 \%$ in people in publishing, audio-video production, mass communication, information, and communications and the lowest rate of $51.5 \%$ of people working in other services.

When analyzed by average monthly individual income, people of no income (56.9\%), those earning NT\$10,000-19,999 (62.2\%) and those earning NT\$20,00029,999 ( $63.9 \%$ ) have a higher proportion of not knowing, while those of other education levels have higher proportion of knowing, with the highest rate $65.6 \%$ in the NT60,000 and over and the lowest rate $52.5 \%$ in the NT\$1-9,999 group.

## Considering Cancellation of Subscription to Cable TV Services Q13 Q14 Q15

## 1. Overall analysis

The above analysis shows that cable TV is the most common source of viewing in Taiwan. When interviewees were asked their willingness to renew the subscription for next year, $85 \%$ of them responded affirmatively, while $8.1 \%$ of cable subscribers
considered suspension (see Figure 7).


Figure 7 Considering Cancellation of Cable Television Services
Base: $\mathrm{N}=669$, single-choice (cable TV subscribers)
For those who consider suspension, the main reasons include that the Internet is convenient ( $36.7 \%$ ), they do not intend to watch TV programs provided by cable TV operators ( $26.7 \%$ ) and seldom watch TV (18.6\%) (see Figure 8); among the respondents who considered the suspension, $43.7 \%$ would consider using free online streaming series, and $22 \%$ considered subscribing to Chunghwa Telecom's MOD (see Figure 9).


Figure 8 Reasons to Stop Subscribing to Cable TV Services
Base : N=54, multiple-choice (people considering not to subscribe to cable TV in the next 12 months)


Figure 9 Consider Subscribing to Other Services
Base : $\mathrm{N}=54$, multiple-choice (people considering not to subscribe to cable TV in the next 12 months)

## 2. Comparative Analysis

## (1) Analysis of regional differences

When analyzed by region, the majority of people in all regions are not considering stopping subscription to cable TV services in the next year, with the highest being $91.8 \%$ in Yilan, Hualien, and Taitung and the lowest $79.1 \%$ in Taoyuan, Hsinchu and Miaoli. For those who consider suspension, people in Taoyuan, Hsinchu and Miaoli (46.3\%) have the highest rate of seldom watching TV, those in Kaohsiung, Pingtung and Penghu ( $50.7 \%$ ) have the highest rate of thinking the Internet is convenient, while Taipei City, New Taipei City and Keelung (47.3\%), Taichung, Changhua and Nantou (44.1\%), Yunlin, Chiayi, and Tainan (34.6\%) have the highest rates of not intending to watch the TV programs provided by cable TV operators. Among the respondents who considered suspension, people in Taoyuan, Hsinchu and Miaoli ( $38.1 \%$ ) and people in Taichung, Changhua and Nantou (58.1\%) have the highest proportions of considering to subscribe to Chunghwa Telecom's MOD. People in Yunlin, Chiayi, and Tainan ( $28.6 \%$ ) have the highest proportion considering to subscribe to terrestrial TV. People in Taipei City, New Taipei City and Keelung ( $40.7 \%$ ) and people in Kaohsiung, Pingtung and Penghu (66.4\%) have the highest proportions considering to use free online streaming series.

## (2) Analysis of basic differences

When analyzed by gender, more women ( $85.4 \%$ ) are considering to subscribe to cable TV next year than men ( $84.5 \%$ ). For those who consider suspension, $42.9 \%$ of men and $30.1 \%$ of women think the Internet is convenient. Among the respondents who consider suspension, $57.1 \%$ of men and $29.5 \%$ of women are considering to use free online streaming series.

When analyzed by age, the majority in all age groups are not considering to stop
subscribing to cable TV services in the next year, with the highest rate $88.7 \%$ aged $56-65$ and the lowest rate $79.9 \%$ aged $26-35$. For those who consider suspension, $49.2 \%$ of those 66 and over () is highest proportion of those not intending to watch TV programs provided by cable TV operators. People aged 16-25 and people aged 36-45 have the highest proportions who seldom watch TV, while the rest of the age group have higher proportions of thinking that the Internet is convenient, with the highest rate $67 \%$ of those 46-55 and the lowest rate $41.4 \%$ of those 26-35.

Among the respondents who consider suspension, people aged 36-45 have the highest proportion considering to subscribe terrestrial TV, while the other age groups have higher proportions of using free online streaming series, with the highest rate $59.6 \%$ of those $36-45$ and the lowest rate $40 \%$ of those aged 56-65 years old.

When analyzed by marital status, regardless of marital status, of the majority are not considering to stop a subscription to cable TV services in the next year, with the highest rate $95.8 \%$ widowed or separated and the lowest rate $81.7 \%$ unmarried people. For those who consider suspension, married (41.7\%) has the highest proportions of not intending to watch TV programs provided by cable TV operators, and unmarried ( $33.9 \%$ ) have the highest proportion who think that the Internet is convenient. Among the respondents who consider suspension, unmarried (55.1\%) and married ( $34.4 \%$ ) are both have the highest rates of using free online streaming series.

## Cable TV cross-regional operation Q16 Q17

## 1. Overall analysis

Concerning whether there are new cable operators providing cable TV service in the area where people live, $38 \%$ answered "Yes" while $28.4 \%$ answered "No." $33.6 \%$ of people did not know (see Figure 10). Among those who answered "Yes", $22.9 \%$ of people have changed cable operator while $77.1 \%$ have not (see Figure 11).


Figure 10 New Cable Operators in the Region
Base: $\mathrm{N}=500$, single-choice (there are new cable operators joining the market in living area)


Figure 11 Switch to the New Cable TV Operators
Base : $\mathrm{N}=190$, single-choice (people who know there are new cable operators joining the market in their living area)

## 2. Comparative Analysis

## (1) Analysis of regional differences

The Chi-square test shows that whether there are new operators providing cable TV service is significantly related to living area.

The cross analysis suggests that among the cities where new operators joined (New Taipei City, Taipei City, Kaohsiung, and Changhua), concerning whether there are new cable operators providing cable TV service, people in New Taipei City ( $44.6 \%$ ) and Taipei City ( $50.9 \%$ ) have higher rates to answer "Yes" while those in Kaohsiung(41.7\%) have higher rates to answer "No", and people in Changhua (37.6\%) have higher rates to not know. Among those who answer "Yes", people in New Taipei City (73.4\%), Taipei City (82.1\%), Kaohsiung (83.7\%) and Changhua ( $62.4 \%$ ) all have higher rates to never change to new operators after the crossedarea market of cable is opened.

## (2) Analysis of basic differences

When analyzed by gender, concerning whether there are new cable operators providing cable TV service, both males and females have higher rates to answer "Yes" ( $37.8 \%, 38.1 \%$ ). $79.4 \%$ of women and $74.8 \%$ of men who answered "Yes" never change to new operators.

When analyzed by age, concerning whether there are new cable operators providing cable TV service, $53.1 \%$ of those $16-25$ do not know while $36.9 \%$ aged 26 $35,39.7 \%$ aged $36-45$, and $44.9 \%$ aged 46-55 answered "Yes." Those aged 56-65
( $37.4 \%$ ) had a higher rate to answer "No." Among those who answer "Yes", a majority of all age groups have higher rates to never change to new cable operators, people aged 46-55 have the highest rate of $87.3 \%$ while those aged $56-65$ the lowest of $71.2 \%$.

When analyzed by marital status, concerning whether there are new cable operators providing cable TV service, those married (46.1\%) have higher rates to answer "Yes" while those unmarried people (44.8\%) and those widowed or separated people ( $39.8 \%$ ) both have higher rates of not knowing. Among those who answer "Yes", the highest percentage regardless of marital status is for never changing to new cable operators, with widowed or separated people having the highest rate of $100 \%$, while those married the lowest, $75.3 \%$.

## (3) Analysis of differences in social and economic status

The Chi-square test shows that whether there are new operators providing cable TV service is significantly related to housing tenure.

When analyzed by housing tenure, concerning whether there are new cable operators providing cable TV service, home owners (35.8\%) and house renters ( $44.4 \%$ ) both have higher rates answering "Yes".

## The Subscription to and Use of MOD Services Q18 Q19 Q20

## 1. Overall analysis

For those who subscribe to Chunghwa Telecom's MOD, the most frequent option (21.7\%) use subscription packages of NT\$201-300, such as family luxury package, popular package, value package; followed by packages NT\$101-200, such as special selected family package, selected package, package B, etc. (15.4\%), and only paying platform service fees (NT\$89) without additional purchases (13.2\%). In addition, there are up to $28.2 \%$ people don't know which package they purchase as the highest proportion (see Figure 12).


Figure 12 The Package Subscribed by MOD Subscribers
Base: $\mathrm{N}=259$, multiple-choice (MOD subscribers)
$65.9 \%$ of the people who subscribe to Chunghwa Telecom's MOD know that Chunghwa Telecom's MOD has recording, pause, catch-up, and information query
functions, and $34.1 \%$ of the people don't know (see Figure 13); however, in terms of usage, $52.2 \%$ of people do not use the above functions, and $23.4 \%$ use the catch-up function, $19.8 \%$ use the video on demand function (see Figure 14).


Figure 13 Do you Know that MOD has Recording, Pause, Catch-up, and Information Query Functions?
Base: $\mathrm{N}=259$, single-choice (MOD subscribers)


Figure 14 Use the MOD Function
Base: N=171, multiple-choice (people who know MOD has recording, pause, catch-up, and information query functions)

## 2. Comparative Analysis

(1) Analysis of regional differences

Among the people who subscribed to Chunghwa Telecom MOD, Taipei City, New Taipei City and Keelung (29.7\%) and Taoyuan, Hsinchu and Miaoli (26.9\%) have highest rates subscribing to the NT\$201-300 packages, such as the family luxury package, popular package and value package, while those in other areas have the highest rates of not knowing which package they subscribe to. People in Yunlin, Chiayi, and Tainan (27.7\%) and Yilan, Hualien, and Taitung (26.8\%) have the highest proportions of only paying the platform service fee (NT\$89) without additional purchases.

Most people who subscribe to Chunghwa Telecom MOD know that Chunghwa

Telecom MOD has recording, pause, catch-up, and information query functions, with the highest rate of $79.1 \%$ in Taipei City, New Taipei City and Keelung and the lowest rate of $56 \%$ in the Taoyuan, Hsinchu and Miaoli and Yilan, Hualien, and Taitung regions. In terms of usage, all regions have the highest proportions of not using the above functions, with the highest rate of $64.7 \%$ in Taichung, Changhua and Nantou and the lowest rate of $38.7 \%$ in Kaohsiung, Pingtung and Penghu.

## (2) Analysis of basic differences

When analyzed by gender, for those who subscribe to Chunghwa Telecom's MOD, $30.7 \%$ of women and $25.6 \%$ men do not know which package they purchased, followed by $21.9 \%$ of women and $21.4 \%$ of men who packages of NT\$201-300, such as the family luxury package, popular package, value package.

A higher percentage of men (66.6\%) know that Chunghwa Telecom's MOD provides recording, suspension, catch-up and information query features than women ( $65.2 \%$ ); as for the functions of Chunghwa Telecom's MOD, more women (56.3\%) than men( $48 \%$ ) use these.

When analyzed by age, $33.6 \%$ of those $36-35$ subscribe to Chunghwa Telecom's MOD service with the highest proportion purchasing NT\$201-300 packages; those 46-55 ( $22.7 \%$ ) and $46-55$ only pay the platform service fee (NT\$89) without additional purchases, while the majority in other age groups do not know which package they have. In addition, 56-65 years old (25.9\%) purchasing NT\$100 and under, 36-45 years old ( $28.2 \%$ ) purchasing NT\$101-200, 66 years old and over ( $25.1 \%$ ) purchasing single subscription have the higher proportions than other age groups.

People aged 56-65 (53.1\%) do not know that Chunghwa Telecom's MOD provides recording, suspension, catch-up and information query features, while those in other age groups have the are more likely to know, with the highest rate $74.1 \%$ among those $36-45$ and the lowest rate $63.3 \%$ among those $16-25$. As for the functions of Chunghwa Telecom MOD, the highest proportion of all age groups do not use these, with the highest rate $67.2 \%$ of those aged 66 and over and the lowest rate of $36.5 \%$ of those aged $36-45$. In addition, people aged $26-35$ ( $35.3 \%$ ) use ondemand service, those aged 36-45 (23.9\%) use life information inquiries, and those aged 66 and over ( $32.8 \%$ ) use shopping functions; all were higher proportions than for other age groups.

When analyzed by marital status, unmarried people (33.1\%)have a higher proportion of unknown, married people (26.9\%) are subscribing to Chunghwa Telecom's MOD service with the highest proportion of NT 201-300 packages, and widowed/separated people ( $24.6 \%$ ) have the highest proportions of NT 100 and under.

Regardless of marital status, people know that Chunghwa Telecom's MOD
provides recording, suspension, catch-up and information query features, with the highest rate $81.5 \%$ among those widowed or separated and the lowest rate $62.9 \%$ of unmarried people. As for the use of functions of Chunghwa Telecom's MOD, the majority by marital status do not use these functions, with the highest rate $62 \%$ among those widowed or separated and the lowest rate $45.5 \%$ of unmarried people.

## (3) Analysis of differences in social and economic status

The result of Chi-square tests indicates that whether people know that Chunghwa Telecom's MOD provides recording, suspension, catch-up and information query features varies significantly by education level and average individual monthly income.

When analyzed by education level, the highest proportions at all education levels know that Chunghwa Telecom's MOD provides recording, suspension, catch-up and information query features, with the highest rate of $86.2 \%$ among those with junior college education and the lowest rate of $53.3 \%$ among those with senior high and vocation education

When analyzed by average individual monthly income, except the NT\$10,00019,999 group have the highest proportion of those who do not know that Chunghwa Telecom's MOD provides recording, suspension, catch-up and information query features, while other groups have the highest proportion of knowing of these functions, with the highest rate of $84.3 \%$ of those earning NT $\$ 60,000$ or more and the lowest rate of $53.6 \%$ of those with no income.

## Whether people Consider Stopping Subscribing MOD Service Q21

## 1. Overall analysis

$13.8 \%$ of those who subscribe to Chunghwa Telecom MOD will consider stopping to subscribe to the MOD service in the next year, and $71 \%$ will continue to subscribe to the MOD service (see Figure 15).


Figure 15 Considering to Stop Subscribing to MOD Service
Base: $\mathrm{N}=259$, single-choice (MOD subscribers)

## 2. Comparative Analysis

## (1) Analysis of regional differences

The majority of people in all regions have the highest proportions for continuing to subscribe to MOD service in the next year, with the highest rate $74.3 \%$ in Taipei City, New Taipei City and Keelung and Yunlin, Chiayi, and Tainan, and the lowest rate $64.7 \%$ in Kaohsiung, Pingtung and Penghu.

## (2) Analysis of basic differences

When analyzed by gender, $76.6 \%$ of women consider continuing to subscribe MOD services in the coming year, higher than men (65.1\%).

When analyzed by age, the majority of people in all age groups have the highest proportion considering to continue to subscribe MOD service subscriptions in the next year, with the highest rate of $85.9 \%$ in people aged 56-65 and the lowest rate of 58.9\% in people aged 16-25.

When analyzed by marital status, the majority of people in all marital status have the highest proportions of considering continuing to subscribe MOD service subscriptions in the next year, with the highest rate of $93.6 \%$ in widowed/separated people and the lowest rate of $65.8 \%$ unmarried people.

## Connecting the TV via the Networked Device and Viewing the Contents on the TV Screen Q25

## 1. Overall analysis

In terms of the devices through which the TV set is connected and content seen through a TV screen in the past 12 months, the survey results show that the proportion using smart phones ( $37.1 \%$ ) is the highest, followed by not using a TV screen ( $28.1 \%$ ), and through a cable box ( $25.3 \%$ ). The proportion of the public who will not use any connected devices to connect to the TV and watch online content through TV is up to $33.9 \%$ (see Figure 16).


Figure 16 In the Past 12 Months, People Connected to the TV Set via a Networked Device and Watched Online Content on a TV Screen

Base: $\mathrm{N}=1,040$, multiple-choice (people who have networked devices at home)

## 2. Comparative Analysis

(1) Analysis of regional differences

When analyzed by region, in the past 12 months, the proportion of people in Taoyuan, Hsinchu and Miaoli (43.7\%), Taichung, Changhua and Nantou (35.6\%), Kaohsiung, Pingtung and Penghu ( $52.9 \%$ ) districts connecting TV sets through smart phones and watching online content on TV screens are higher; people in Taipei City, New Taipei City and Keelung (39.8\%) and Yunlin, Chiayi, and Tainan (45\%) and Yilan, Hualien, and Taitung (44.3\%), who do not use networked device to connect TV sets and watch online content through TV screens have the higher proportion.

## (2) Analysis of basic differences

When analyzed by gender, in the past 12 months, the percentage of men (37.4\%) who connected to TVs via smart phones and watched online content on TV screens was higher than for women ( $36.9 \%$ ).

When analyzed by age, in the past 12 months, people aged 16-25 (46.2\%), 2635 ( $41.2 \%$ ) and 36-45 (44.6\%) have a higher proportion of using smart phones to connect to TV sets and watching online content through a TV screen, and people aged 46-55 ( $40.2 \%$ ), 56-65 ( $43.4 \%$ ) and 66 and over ( $43.2 \%$ ) have a higher proportion of not using networked devices to connect TV set and watching online content through TV screens.

When analyzed by marital status, in the past 12 months, except unmarried people ( $43.2 \%$ ) have a higher proportion of using smart phones to connect to TV sets and watching online content through a TV screen, married people (37.3\%) and those widowed or separated ( $40.6 \%$ ) have the highest proportion of not using networked devices to connect TV set and watching online content through TV screens.

## Smart TVs Q26 Q27 Q29

## 1. Overall analysis

The survey finds that $76.9 \%$ of people do not have smart TVs (see Figure 17). Of those who do have smart TVs in the home, $60.7 \%$ have their smart TVs connected to the broadband network at home (see Figure 18).


Figure 17 Having a Smart TV at Home
Base : $\mathrm{N}=1,036$, single-choice (having a TV set in the home)


Figure 18 Whether Home Smart TV is Connected to Broadband Network
Base : $\mathrm{N}=240$, single-choice (having smart TV at home)
In the past 12 months, people with smart TVs at home have used smart TVs to watched short films of less than ten minutes on Facebook and YouTube (35.8\%) and watch videos longer than ten minutes on Facebook and YouTube (35.8\%) (see Figure 19). Watching free movies and TV programs provided by OTT TV service providers (such as Netflix, Iqiyi, etc.) had the highest rate of $30.3 \%$.


Figure 19 Activities Using Smart TV in the Past 12 Months
Base : N=240, multiple-choice (respondents who have smart TVs at home)

## 2. Comparative Analysis

## (1) Analysis of regional differences

The result of Chi-square tests indicates that whether people have a smart TV at home varies significantly by region.

When analyzed by region, the majority of people in all regions have a smart TV, with the highest rate of $87.4 \%$ in Yilan, Hualien and Taitung and the lowest rate of $66.2 \%$ in Taoyuan, Hsinchu and Miaoli area. The highest proportion in all regions have smart TVs connecting with broadband network at home, with the highest rate of $71.8 \%$ in Kaohsiung, Pingtung and Penghu and the lowest rate of $53.3 \%$ in Yunlin, Chiayi, and Tainan.

In the past 12 months, people with smart TVs at home in Taipei City, New Taipei City ( $38.1 \%$ ) and Keeling and Taoyuan, Hsinchu and Miaoli (41.9\%) have the highest proportion of using smart TVs to watch videos longer than ten minutes on Facebook and YouTube, and people in Taichung, Changhua and Nantou (34.2\%) and Kaohsiung, Pingtung and Penghu (27.8\%) have the highest rates of watching free movies and TV programs provided by OTT TV service providers. In Yunlin, Chiayi, and Tainan, $54.1 \%$ have watched short films of less than ten minutes on Facebook and YouTube,
and people in Yilan, Hualien, and Taitung have not used smart TV, with the highest rate of $42.9 \%$.

## (2) Analysis of basic differences

The result of Chi-square tests indicates that whether people have smart TVs at home varies significantly by age.

When analyzed by gender, $79.1 \%$ of women and $74.5 \%$ of men have no smart TV at home. More women (57\%) than men (64.9\%) have smart TVs that connect to a broadband network at home.

In the past 12 months, most men ( $37.4 \%$ ) have watched short films of more than ten minutes on Facebook and YouTube, and most women (36.5\%) have used smart TVs to watch free movies and TV programs provided by OTT TV service providers.

When analyzed by age, most have no smart TVs at their homes, with the highest rate of $89.5 \%$ are those aged $56-65$ and the lowest rate ( $72.2 \%$ ) aged $36-45$. The majority of people in all age groups have smart TVs connected to broadband networks at home, with the highest rate $65.1 \%$ aged $16-25$ and the lowest rate aged $52.7 \%$ in 52.7\%.

When using a smart TV in the past 12 months, people aged $36-45$ watched videos less than ten minutes on Facebook and YouTube (38.9\%), while people aged 46-55 ( $32.9 \%$ ) used smart TV to watch free movies and TV programs provided by OTT TV service providers. People aged 56-65 (39.4\%) watch replay services provided by television operators on the internet, and people aged 16-25 watched videos more than ten minutes on Facebook and YouTube (38.9\%).

When analyzed by marital status, the majority of people regardless of marital status have no smart TVs in their homes, with the highest rate $85 \%$ of those widowed or separated and the lowest rate $74.7 \%$ of unmarried people. The majority of people regardless of marital status have smart TVs connected to broadband networks at home, with the highest rate $62.4 \%$ of unmarried people and the lowest rate of $34.2 \%$ of those widowed/separated. In the use of smart TV for the past 12 months, those unmarried ( $41.7 \%$ ) and married ( $33.1 \%$ ) watched videos of less than ten minutes on Facebook and YouTube, while those widowed/separated (34.3\%) watched videos of more than ten minutes on Facebook and YouTube.

## (3) Analysis of differences in social and economic status

The result of Chi-square tests indicates that whether or not people have smart TVs at home varies significantly by housing tenure, education level, profession and average monthly individual income.

When analyzed by housing tenure, the majority of home owners (75.2\%) and house renters ( $83 \%$ ) have no smart TVs at their homes.

When analyzed by education level, the majority of people in all education levels
have no smart TVs in their homes, with the highest rate (93.3\%) with elementary school and lower education, and the lowest rate ( $60.5 \%$ ) with a master's degree or higher.

When analyzed by profession, except people in the real estate industry (50.7\%) have the highest proportions have smart TVs at their homes, the other profession have the highest proportions without smart TVs in their homes, with the highest rate in the public administration and national defense industries (94.9\%) and the lowest rate in the professional, scientific and technology services industries (56.9\%).

When analyzed by average monthly individual income, the majority of people in all groups have the highest proportions without smart TVs in their homes, with the highest rate of $86.2 \%$ in NT\$1-9,999 group and the lowest rate of $63.1 \%$ in the NT\$60,000 and more group.

## B. TV and Radio Viewing Behavior and Feelings

## Prime Time for Watching TV Q39

## 1. Overall analysis

The most popular time for watching television is 20:00-21:00, accounting for $46.8 \%$; followed by 21:00-22:00, accounting for $39.6 \%$, and 19:00-20:00, accounting for $38.3 \%$. The survey result shows that 19:00-22:00 is the prime time for people in Taiwan to watch TV (see Figure 20).


Figure 20 Most Frequent Time Slots for TV
Base : $\mathrm{N}=1,000$, multiple-choice (TV viewers)

## 2. Comparative Analysis

## (1) Analysis of regional differences

Except for people in Taoyuan, Hsinchu and Miaoli (42.8\%) who mainly watch TV from 1900 to 2000, people in other areas mainly watch TV from 2000 to 2100, with the highest rate of $51.5 \%$ in Taichung, Changhua and Nantou and the lowest rate of $45.6 \%$ in Yunlin, Chiayi, and Tainan Taipei City, and Yilan, Hualien, and Taitung.

## (2) Analysis of basic differences

When analyzed by gender, $49 \%$ females and $44.5 \%$ of males mainly watch TV from 2000 to 2100.

When analyzed by age, the majority of people in all age groups mainly watch TV from 2000 to 2100 , with the highest rate of $57.1 \%$ those aged 66 and over, and the lowest rate of $39.5 \%$ aged 16-25.

When analyzed by marital status, the majority regardless of marital status mainly watch TV from 2000 to 2100 , with the highest rate of $51 \%$ those married and the lowest rate of $41.1 \%$ those unmarried.

## Types of TV Programs often Watched Q40

## 1. Overall analysis

Among all the types of programs, social news accounted for $70.9 \%$, the highest, followed by the weather (49.8\%), and international news (45.1\%) (see Figure 21).


Figure 21 The Top 10 Types of TV Program often Watched
Base : N=1,000, multiple-choice (TV viewers)

## 2. Comparative Analysis

## (1) Analysis of regional differences

The most often watched TV programs is social news in all regions, among which the highest is Yunlin, Chiayi and Tainan, reaching $82.9 \%$, and the lowest is Taoyuan, Hsinchu and Miaoli (64.5\%).
(2) Analysis of basic differences

When analyzed by gender, social news is the most often watched TV program, and the percentage is $73.1 \%$ for men and $68.8 \%$ for women. In addition, men often watch TV programs about international news, commentary programs and political news; women often watch TV drama and healthcare programs.

When analyzed by age, the most often watched TV programs is social news, with the highest rate of $78.2 \%$ for people aged $46-55$ and the lowest rate of $53.3 \%$ for people aged 16-25.

When analyzed by marital status, the most often watched TV program is social news, and the highest is $76.3 \%$ of those married is the highest rate, and the lowest $61.9 \%$ of those unmarried people.

## Quality of TV Programs Q41 Q42 Q43

## 1. Overall analysis

Overall, $61.4 \%$ of the people believe that over the past 12 months, the overall quality of TV programs have maintained their original level, while $17.2 \%$ expressed improvement, and $13.2 \%$ felt quality had become worse (see Figure 22).


Figure 22 Whether Quality of TV Programs have Improved over 12 Months
Base: $\mathrm{N}=1,000$, single-choice (TV viewers)
For those who think the overall quality of TV programs has improved, they think TV programs have improved by providing a variety of programs ( $69.2 \%$ ), by being more interesting or entertaining ( $38.5 \%$ ), and by following the trend of the content (37.5\%) (see Figure 23).


Figure 23 The Items that TV Shows Have Improved over the Past 12 Months
Base: $\mathrm{N}=172$, multiple-choice (respondents who think the TV programs have been improved in the past 12 months)

For those who think the overall quality of TV programs has become worse, they are dissatisfied about repetitive TV programs ( $68.6 \%$ ), too much product placement (57.2\%) and political bias in reports (53.4\%) (see Figure 24).


Figure 24 The Items that TV Shows Have been Worse in the Past 12 Months (Top 10)

Base: $\mathrm{N}=132$, multiple-choice (respondents who think that TV programs have been worse in the past 12 months)

## 2. Comparative Analysis

(1) Analysis of regional differences

The result of Chi-square tests indicates that the perception of TV program quality varies significantly by region.

In all regions, most believe that the overall quality of TV programs is considered to be the same over the past 12 months,, with the highest rate of $70.9 \%$ in Yilan, Hualien, and Taitung and the lowest rate of $50.8 \%$ in Kaohsiung, Pingtung and Penghu.

For those who think the overall quality of TV programs has improved, the majority of people in all regions think the TV programs have improved in providing a variety of programs, with the highest rate $75.3 \%$ in Kaohsiung, Pingtung and Penghu and the lowest rate $62.9 \%$ in Taoyuan, Hsinchu and Miaoli.

For those who think the overall quality of TV programs have become worse, people in Taipei City, New Taipei City and Keelung (71.6\%) and Taoyuan, Hsinchu and Miaoli $(74.2 \%)$ are dissatisfied about too much product placement, while people in Taichung, Changhua and Nantou (70.5\%) and Yunlin, Chiayi, and Tainan (91\%) are dissatisfied about repetitive TV programs. People in Kaohsiung, Pingtung and Penghu (69.7\%) are dissatisfied with very little international news.

## (2) Analysis of basic differences

The result of Chi-square tests indicate that TV program quality varies significantly by marital status.

When analyzed by gender, both men (59.8\%) and women (62.9\%) think that over the past 12 months, the overall quality of TV programs have maintained their original level.

For those who think the overall quality of TV programs have improved, both men ( $65.5 \%$ ) and women ( $73.9 \%$ ) think that TV programs have improved in providing a variety of programs, while for those who think the overall quality of TV programs have become worse, men ( $66.1 \%$ ) and women ( $70.4 \%$ ) are both dissatisfied about the repetitive TV programs.

When analyzed by age, all age groups believe that over the past 12 months the overall quality of TV programs maintained their original level, with the highest rate $70.4 \%$ of those aged 66 and over and the lowest rate $56.2 \%$ of $16-25$ year-olds.

For those who think the overall quality of TV programs has improved, all age groups think that TV programs have improved by providing a variety of programs, with the highest rate $81.8 \%$ of $56-65$ year-olds and the lowest rate $61.7 \%$ of $16-25$ year-olds. For those who think the overall quality of TV programs has become worse, people aged $16-25(82.5 \%)$ are dissatisfied with politically biased reporting, people aged 26-35 (66.7\%) are dissatisfied about too many political commentary programs, people aged $46-55(73.8 \%)$ are dissatisfied about too many product placements, people aged 36-45 (80.1\%), 56-65(73.1\%) and 66 and over are dissatisfied about with repetitive TV programs.

When analyzed by marital status, the majority of people in believe that over the past 12 months, the overall quality of TV programs have maintained their original level, with the highest rate $65.4 \%$ of those married and lowest rate $55.3 \%$ of those widowed or separated. For those who think the overall quality of TV programs has improved, regardless of marital status, all think that TV programs have improved in providing a variety of programs, with the highest rate $80.2 \%$ among those widowed or separated and the lowest rate of $64 \%$ among the unmarried. While for those who think the overall quality of TV programs being worse, all marital status dissatisfied about the repetitive TV programs, with the highest rate of $74.5 \%$ in married people and the lowest rate of $64.9 \%$ in unmarried people.

## Radio Listening Equipment Q44 Q45

## 1. Overall analysis

According to the survey, people listen to radio programs most often through incar audio ( $61.1 \%$ ), followed by mobile phones (32.4\%) and radio (31.9\%) (see Figure 25).


Figure 25 Radio Listening Equipment
Base: $\mathrm{N}=318$, multiple-choice (those who listen to radio)
Most people do not have radios in their homes, and that proportion is $74.4 \%$; followed by a radio in the home, the proportion is 20\% (see Figure 26).


Figure 26 How Many Radios in the House
Base: $\mathrm{N}=1,105$, single-choice

## 2. Comparative Analysis

## (1) Analysis of regional differences

Except for people in Yilan, Hualien, and Taitung which has the highest proportion of using their mobile phone to listen to the radio (44\%), all regions are most often listening to the radio in the car, with the highest rate $74.4 \%$ in Kaohsiung, Pingtung and Penghu and the lowest rate $42.5 \%$ in Taipei City, New Taipei City and Keelung. The highest proportion in all regions do not have a radio in their home, with the highest rate $77.9 \%$ in Taipei City, New Taipei City and Keelung and the lowest rate $66.7 \%$ in Kaohsiung, Pingtung and Penghu and Yilan, Hualien, and Taitung.

## (2) Analysis of basic differences

When analyzed by gender, the proportion of males who listen to radios through in-car audio $(65.7 \%)$ is higher than that of women ( $56.3 \%$ ). Both men ( $76.7 \%$ ) and
women ( $72.2 \%$ ) have the highest proportion of not having radios at home.
When analyzed by age, except people aged 66 and over ( $62.2 \%$ ) are most often listening to the radio through radio, the rest of the age groups are most often listening to the radio through car audio, with the highest rate of $77.3 \%$ in people aged 46-55 and the lowest rate of $52.5 \%$ in people aged $16-25$. All age groups have the highest proportion of not having radios at home, with the highest rate of $80 \%$ in people aged $26-35$ and the lowest rate of $63.3 \%$ in people aged 66 and over.

When analyzed by marital status, the majority of people in all marital status are most often listening to the radio through car audio, with the highest rate of $65 \%$ in married people and the lowest rate of $53.4 \%$ in unmarried people. All marital status have the highest proportion of not having radios in their houses, with the highest rate of $77.2 \%$ in unmarried people and the lowest rate of $72.5 \%$ in married people.

## Radio Listening Q57 Q58

## 1. Overall analysis

The frequency of those listening to the radio at least once a day was $48.9 \%$, followed by those who listen several times a week (34.4\%) (see Figure 27). In terms of the time slot of most frequently listening to the radio, the most common time is 8:00-9:00, with the rate of $25.7 \%$, followed by $7: 00-8: 00$, with a rate of $23.8 \%$, and 9:00-10:00. According to the survey results, most people over the age of 16 usually listen to the radio on their way to work (see Figure 28).


Figure 27 Frequency of Listening to Radio
Base : $\mathrm{N}=318$ (respondents who listen to the radio)


Figure 28 The Radio Listening Time Slot
Base: $\mathrm{N}=318$, multiple-choice (radio listeners)

## 2. Comparative Analysis

## (1) Analysis of regional differences

According to the regional analysis of radio listening frequency, except for Taipei City, New Taipei City and Keeling (45\%) which has the highest proportion of those listening several times a week, the majority in other regions listen at least once a day, with the highest rate of $63 \%$ in Kaohsiung, Pingtung and Penghu and the lowest rate of $35.8 \%$ in Yilan, Hualien, and Taitung.

The most frequent radio listening time slot, 27\% listen 7:00-8:00 in Taipei City, New Taipei City and Keelung, ; 20.4\% in Taoyuan, Hsinchu and Miaoli and Yunlin, Chiayi and Tainan listen 8:00-9:00; $29.6 \%$ Taichung, Changhua and Nantou and $27.4 \%$ Yilan, Hualien and Taitung listen 9:00-10:00; and $24.4 \%$ in Kaohsiung, Pingtung and Penghu listen 17:00-18:00.
(2) Analysis of basic differences

When analyzed by gender, $55.2 \%$ men listen to radio several times a week and $42.5 \%$ women listen to the radio at least once a day. In terms of the most frequent radio listening time slot, for $32.6 \%$ men it is $8: 00-9: 00$, and for $21.7 \% \%$ women it is

## 7:00-8:00.

When analyzed by age, except for people aged 16-25 (21.9\%) who listen the most several times per week, for other age groups it is at least once a day, with the highest rate of $67.2 \%$ of those 66 and over and lowest rate of $41.9 \%$ for people aged 26-35. For the most frequent radio listening time slot, people aged 16-25 (21.9\%) don't know, $26-35(22.4 \%)$ it is $17: 00-18: 00,36-45$ (29.8\%) is 7:00-8:00, and 46-55 ( $33.1 \%$ ), 56-65 ( $28.1 \%$ ) and 66 and over ( $46.2 \%$ ) the most frequent time is $8: 00-9: 00$.

When analyzed by marital status, $39.2 \%$ of those unmarried people listen several times per week, $55.6 \%$ of married people and $60 \%$ of widowed or separated at least once a day. The most frequent radio listening time slot for those unmarried is 14:0015:00, for those married 8:00-9:00, and for those widowed or separated 7:00-8:00.

## Degree of Information Reliance on Radio Broadcasting Q60~Q65

## 1. Overall analysis

As for the degree of information reliance on radio broadcasting, listening to music came first (an average of 6.71 points), followed by obtaining news, with an average of 5.14 points; recommended products returned the lowest results, with an average of 3.18 points (see Table 7).

Table 9 Degree of Information Reliance on Radio Broadcasting

| Information obtained by radio broadcasting | Degree of information reliance (average <br> points) by radio broadcasting |
| :--- | :---: |
| Listen to music | 6.70 |
| News | 5.41 |
| Disaster information (floods, typhoons, <br> earthquakes) | 5.39 |
| Travel and weather information | 5.23 |
| Other life information | 5.18 |
| Recommended Products | 3.85 |

Base : N=318 (radio listeners)
Source: this research.

## 2. Comparative Analysis

## (1) Analysis of regional differences

The results of the one-way ANOVA analysis indicates that the degree of information reliance on radio broadcasting, including news, tourism and weather information, disaster information (such as floods, typhoons, earthquakes) significantly varies by regions.

As for the degree of information reliance on radio broadcasting, people in Kaohsiung, Pingtung and Penghu have the highest score of obtaining news (5.94 points), while Taoyuan, Hsinchu and Miaoli have the lowest score ( 4.41 points). People in Yilan, Hualien, and Taitung have the highest score of tourism and weather
information (5.64 points), while Taoyuan, Hsinchu and Miaoli have the lowest score (3.77 points). People in Yilan, Hualien, and Taitung have the highest score of disaster information (such as floods, typhoons, earthquakes) (6.1 points), while Taipei City, New Taipei City and Keelung have the lowest score ( 4.43 points). People in Yilan, Hualien, and Taitung have the highest score of listening to music ( 7.38 points), while Taipei City, New Taipei City and Keelung have the lowest score ( 6.24 points). People in Kaohsiung, Pingtung and Penghu have the highest score of other life information ( 5.52 points), while Taoyuan, Hsinchu and Miaoli have the lowest score (3.9 points). People in Kaohsiung, Pingtung and Penghu have the highest score of recommended products ( 3.88 points), while Taipei City, New Taipei City and Keelung have the lowest score (2.05 points).

## (2) Analysis of basic differences

The results of the one-way ANOVA analysis indicates that the degree of information reliance from radio broadcasting to obtain news significantly varies by marital status.

When analyzed by gender, more women ( 5.35 points) than men (4.94 points) rely on radio broadcasting to obtain news; more women ( 5.19 points) than men (4.61 points) rely on radio broadcasting to obtain tourism and weather information; the dependence on disaster information (such as floods, typhoons, earthquakes) from radio broadcasting is higher for women ( 5.3 points) than for men ( 4.97 points); the degree of dependence on music by radio broadcasting is higher for women ( 7 points) than for men ( 6.44 points); the degree of dependence for other life information for women ( 5.11 points) is higher than men ( 4.56 points); the degree of dependence on recommended products is higher for women ( 5.11 points) than for men ( 3.13 points).

When analyzed by age, as for the degree of information reliance from radio broadcasting, more people aged 66 and over obtain news ( 6.18 points), while people aged $26-35$ have the lowest score ( 4.64 points). People aged $56-65$ have the highest score of tourism and weather information ( 5.07 points), while people aged 26-35 have the lowest score ( 4.66 points). People aged 66 and over have the highest score for disaster information (such as floods, typhoons, earthquakes) ( 5.7 points), while people aged 26-35 have the lowest score ( 4.85 points). People aged 16-25 have the highest score for listening to music ( 7.24 points), while people aged 66 and over have the lowest score ( 6.23 points). People aged 36-45 and 46-55 have the highest score of other life information ( 4.99 points), while people aged 66 and over have the lowest score ( 4.37 points). People aged $36-45$ have the highest score for recommended products ( 3.43 points), while people aged $26-35$ have the lowest score ( 2.75 points).

When analyzed by marital status, the degree of information reliance from radio broadcasting, those widowed or separated people have the highest score for obtaining
news ( 6.24 points), while those unmarried have the lowest score ( 4.69 points). Married people have the highest score for tourism and weather information (5.2 points), while those unmarried have the lowest score ( 4.46 points). Married people have the highest score of disaster information (such as floods, typhoons, earthquakes) ( 5.38 points), while unmarried people have the lowest score ( 4.78 points). Unmarried people have the highest score of listening to music ( 7.14 points), while those widowed or separated have the lowest score ( 6.33 points). Married people have the highest score of other life information (4.96 points), while those widowed or separated people have the lowest score ( 4.4 points). Married people have the highest score for recommended products ( 3.4 points), while those unmarried have the lowest score (2.74 points).
(3) Analysis of differences in social and economic status

The results of the one-way ANOVA analysis indicates that the degree of information reliance on radio broadcasting, obtaining news significantly varies by education level, and obtaining other life information significantly varies by average monthly individual income.

When analyzed by education level, those with elementary school or less education have the highest score ( 6.06 points) for relying on radio broadcasting to obtain news, while those with high school and secondary school education have the lowest score ( 4.35 points) for obtaining news.

When analyzed by individual average monthly income, those on NT\$30,00039,999 have the highest score ( 5.9 points) for relying on radio broadcasting to obtain other life information, while those on NT $\$ 60,000$ or more have the lowest score (3.89 points) for obtaining news.

## C. TV and Radio Advertising

## Perception of TV Ads Q69 Q70

## 1. Overall analysis

TV commercials have caused problems for the public. The top three reasons are too many advertisements (48.3\%), advertisements that are repeated too often (34.3\%), advertisements that are too long (30.5\%) (see Figure 29); of the types of TV advertisements that have caused problems, the top three are loan/lending advertisements (44.1\%), junk food advertisements (22.6\%), and credit card advertisements (15.4\%) (see Figure 30).


Figure 29 The TV Ads that Trouble the Public
Base: $\mathrm{N}=1,000$, multiple-choice (respondents who watch TV)


Figure 30 The Types of TV Ads that Trouble the Public
Base: $\mathrm{N}=1,000$, multiple-choice (respondents who watch TV)

## 2. Comparative Analysis

(1) Analysis of regional differences

TV commercials have caused a problem for the public. The majority of people in all regions believe there to be too many advertisements, with the highest rate of 53.6\% in Taichung, Changhua and Nantou and the lowest rate of $44.7 \%$ in Kaohsiung,

Pingtung and Penghu.
As for the types of TV advertisements that caused problems, except people in Taipei City, New Taipei City and Keelung (40.6\%) that think there is no problem, other regions believe loan/lending advertising is a problem, with the highest rate of $56.8 \%$ in Taichung, Changhua and Nantou and the lowest rate of $42.2 \%$ in Kaohsiung, Pingtung and Penghu.
(2) Analysis of basic differences

When analyzed by gender, in the case of TV commercials causing trouble to the public, $50 \%$ of men and $46.7 \%$ of women believe there to be too many advertisements. As for the type of TV advertisements that cause trouble, loan/lending advertising was the highest rate for women ( $44.3 \%$ ) and men ( $43.9 \%$ ).

When analyzed by age, in the case of TV commercials causing trouble to the public, the majority of people in all age groups have the highest proportion of too many advertisements, with the highest rate of $58.1 \%$ of $16-25$ year-olds and lowest rate $37.1 \%$ of 56-65 year-olds. The type of TV advertisements that are most trouble those aged 16-25 (53.8\%), 26-35 (58.9\%) and 36-45 (53.6\%) are loan/lending advertisements, while for those aged 46-55 (39.2\%), 56-65 (46.4\%) and 66 and over ( $47.9 \%$ ) think that there is no trouble caused by TV commercials.

When analyzed by marital status, in the case of TV commercials causing trouble to the public, the majority of people in all marital status have the highest proportion of too many advertisements, with the highest rate of $53.9 \%$ in unmarried people and lowest rate of $42.4 \%$ in widowed/separated people. As for the types of TV advertisements that caused trouble, the unmarried $(44.8 \%)$ and the widowed/separated ( $33 \%$ ) have the highest rate of loan/lending advertising, and the married ( $43.1 \%$ ), with no trouble caused, have the highest proportion.

## D. TV and Radio Program Management

## TV Program Management Q75 Q76 Q77

## 1. Overall analysis

Most people know that TV programs are regulated. Knowing (56.8\%) is higher than unknown (43.2\%) (see Figure 31). Of those who know the relevant regulations of TV programs, $53.6 \%$ think that TV program regulation is appropriate, $28.6 \%$ too little, and $9.2 \%$ too much (see Figure 32). Regarding the responsibility for managing TV programs, $67.8 \%$ answered the NCC, followed by unknown (23\%) (see Figure 33).


Figure 31 Knowing Whether or not TV Programs have Relevant Regulations
Base: $\mathrm{N}=1,105$, single-choice


Figure 32 Appropriate Regulations of Television Programs Regulations
Base: $\mathrm{N}=627$, single-choice (respondents who know there are regulations for TV programs)


Figure 33 Agency/Organizations Responsible for the Management of Television Base: $\mathrm{N}=1,105$, single-choice

## 2. Comparative Analysis

## (1) Analysis of regional differences

The result of Chi-square tests indicates that knowing whether TV programs have
relevant regulations and the appropriateness of TV program regulations significantly varies by housing tenure.

As for those who know the relevant regulations for TV programs, Taipei City, New Taipei City and Keelung (68.5\%), Taichung, Changhua and Nantou(50.7\%) and Kaohsiung, Pingtung and Penghu (70.4\%) regions are higher than other regions, while Taoyuan, Hsinchu and Miaoli (51.2\%), Yunlin, Chiayi, and Tainan (58.4\%) and Yilan, Hualien, and Taitung ( $68.5 \%$ ) are higher for do not know.

As for those who know the relevant regulations of TV programs, the majority of people in all regions have the highest proportions of thinking that the TV program regulation being appropriate, with the highest rate of $62.3 \%$ in Kaohsiung, Pingtung and Penghu and the lowest rate of $42.6 \%$ in Yilan, Hualien, and Taitung.

Regarding the responsibility for managing TV programs, the majority of people in all regions have the highest proportions of answering the NCC, with the highest rate $75.5 \%$ in Taipei City, New Taipei City and Keelung and the lowest rate $56.9 \%$ in Yilan, Hualien, and Taitung.

## (2) Analysis of basic differences

The result of Chi-square tests indicates that knowing whether TV programs have relevant regulations and the perception of appropriateness of TV program regulations significantly varies by age and marital status.

When analyzed by gender, $57.4 \%$ of men and $56.2 \%$ of women know whether TV programs have relevant regulations; $54.6 \%$ men and $52.6 \%$ women consider the TV regulations to be appropriate; $71.9 \%$ of men and $63.8 \%$ of women consider the NCC to be responsible for managing TV programs.

When analyzed by age, regarding knowing whether TV programs have relevant regulations, except people aged 66 and over ( $63.7 \%$ ) have the highest proportions of not knowing, while the rest of the age groups have the highest proportion of knowing, with the highest rate $67.5 \%$ of $36-45$ year-olds and the lowest rate of $50.2 \%$ in people aged 16-25 year-olds.

Regarding the perception of appropriateness of TV program regulations, all age groups consider there are appropriate regulations of TV programs, with the highest rate $58.2 \%$ of those aged $16-25$ and the lowest rate of $45.5 \%$ of those aged 36-45.

Regarding which unit is responsible for managing TV programs, except people aged 66 and over ( $45.5 \%$ ) have the highest proportion of not knowing, while the rest of age groups have the highest proportions of knowing, with the highest rate of $80.6 \%$ in people aged $36-45$ and the lowest rate of $62.9 \%$ in people aged $56-65$.

When analyzed by marital status, $55 \%$ widowed or separated do not know that TV programs have relevant regulations, except, while the proportion knowing that there are regulation are the highest for those of a different marital status, with the
highest rate $59.3 \%$ among the unmarried and the lowest rate $57.6 \% \%$ among the married.

Regarding the perception of appropriateness of TV program regulations, the majority regardless of marital status consider there to be appropriate regulations of TV programs, with the highest rate $61.5 \%$ of those widowed or separated and the lowest rate $47.8 \%$ of those unmarried.

Regarding which unit is responsible for managing TV programs, the majority of people in all marital status consider it to be the NCC, with the highest rate $72 \%$ in unmarried people and the lowest rate of $59.6 \%$ in widowed/separated people.
(3) Analysis of differences in social and economic status

The result of the Chi-square tests indicates that knowing whether or not TV programs have relevant regulations significantly varies by housing tenure, education level, profession and average monthly individual income; the awareness of overall TV regulations significantly varies by education level and individual average monthly income.

When analyzed by housing tenure, regarding knowing whether TV programs have relevant regulations, both home owners (55.5\%) and house renters (65.1\%) have higher proportions of knowing.

When analyzed by education level, regarding knowing whether TV programs have relevant regulations, except for those with elementary school and lower education ( $69.8 \%$ ) and those with high school and secondary school education ( $66.6 \%$ ) which have higher proportions of not knowing about TV regulations, the other groups have higher proportions of knowing about regulations, with the highest rate $78.6 \%$ of those with a master's degree or higher and the lowest rate $56 \%$ with senior high and vocational school education.

Regarding the perception of appropriateness of TV program regulations, except people with a master's degree or higher who consider there to be too few regulations of TV programs, others consider the regulations appropriate, with the highest rate $90 \%$ for those with elementary school or below education and the lowest rate $51.8 \%$ of those with a bachelor's degree.

When analyzed by profession, those who work in agriculture, forestry, fishery and husbandry ( $50.7 \%$ ) and people in the transportation and warehousing ( $50.7 \%$ ), the retired (52.6\%) and jobseekers (53\%) do not know that TV programs have relevant regulations, while the highest proportions of other occupation groups do know, with the highest $81.7 \%$ in people in education and the lowest, $50.5 \%$ of students.

When analyzed by individual average monthly income, those earning under NT $\$ 30,000$ group have the highest proportion of those who do not know whether TV programs have relevant regulations, with the highest rate $56.4 \%$ of those earning

NT\$1-9,999 and the lowest rate of $53.3 \%$ earning NT\$20,000-29,999. Of those earning over NT $\$ 30,000$, the majority know of TV program regulations, with the highest rate $71.9 \%$ in the NT\$40,000-49,999 group and the lowest rate $65.3 \%$ in the $\mathrm{N} \$ \mathrm{~T} 30,000-39,999$ group.

Regarding the perception of appropriateness of TV program regulations, all groups consider there are appropriate regulations for TV programs, with the highest rate $70.7 \%$ in the NT\$10,000-19,999 group and the lowest rate $36.6 \%$ among those earning NT $\$ 60,000$ or more.

## Radio Broadcasting Program Regulations Q78 Q79 Q80

## 1. Overall analysis

Most people do not know that there are relevant regulations for radio programs, 51.7\% compared to $48.3 \%$ (see Figure 34).

People who know there are the relevant regulations of radio programs think that the relevant regulations are appropriate ( $47.7 \%$ ), followed by too few ( $24.1 \%$ ), and then too much ( $8.5 \%$ ), while the proportion of unknown is up to $19.8 \%$ (see Figure 35). For which agency is responsible for managing the radio program, $59.4 \%$ answered the NCC as the highest, followed by the unknown (31.4\%) (see Figure 36).


Figure 34 Knowing Whether or not Radio Programs have Relevant Regulations Base: $\mathrm{N}=1,105$, single-choice


Figure 35 Whether Regulation of Radio Programs are Appropriate
Base: $\mathrm{N}=534$, single-choice (people who know there are relevant regulations for radio programs)


Figure 36 Agency/Organizations Responsible for the Management of Radio Programs
Base: $\mathrm{N}=1,105$, single-choice

## 2. Comparative Analysis

## (1) Analysis of regional differences

The result of Chi-square tests indicates that knowing about the relevant regulations of radio programs and knowing there are the relevant regulations of radio programs vary by housing tenure.

When analyzed by region, regarding the regions that have the highest proportions of people who know whether there are relevant regulations for radio programs, are Taipei City, New Taipei City and Keeling (54.8\%) and Kaohsiung, Pingtung and Penghu (59.7\%); in the other regions, the highest proportions do not know, with the highest rate $73.1 \%$ in Yilan, Hualien and Taitung and the lowest rate $54 \%$ in Taichung, Changhua and Nantou.

Regarding the perception of appropriate regulations for radio programs, all regions have greater proportions of appropriateness, with the highest rate $66.9 \%$ in

Kaohsiung, Pingtung and Penghu and the lowest rate $38.6 \%$ in Taoyuan, Hsinchu and Miaoli.

Regarding which unit is responsible for managing radio programs, except for the Ilan, Hualien and Taitung region (47.5\%) which has the highest proportion of not knowing, majorities in the other regions consider it to be the NCC, with the highest rate $65 \%$ in Taipei City, New Taipei City and Keeling, and the lowest rate $54 \%$ in Taoyuan, Hsinchu and Miaoli.

## (2) Analysis of basic differences

The result of Chi-square tests indicates that knowing whether or not there are relevant regulations of radio programs significantly varies by age; the perception of appropriate regulations for radio programs significantly varies by age and marital status.

When analyzed by gender, regarding knowing whether radio programs have relevant regulations, men (50.5\%) have a higher proportion of knowing and women (53.8\%) have a higher proportion of not knowing. Men (50.7\%) and women (44.4\%) are more likely to consider the relevant regulations for radio programs to be appropriate. For the unit responsible for managing radio programs, both $64.7 \%$ men and $54.3 \%$ women consider it to be the NCC.

When analyzed by age, regarding knowing, a higher proportion those aged 16$25(55.2 \%), 56-65(52.7 \%)$ and 66 and over ( $69.1 \%$ ) do not know whether radio programs have relevant regulations, and people aged 26-35 (53.5\%), 36-45 (56.5\%) and 46-55 (51.5\%) do know. The majority of people in all age groups consider the relevant regulations for radio programs to be appropriate, with the highest rate $59.7 \%$ of those aged 26-35 and the lowest rate $32.6 \%$ of those 66 and over. For the unit responsible for managing radio programs, except people aged $50.4 \%$ of those 66 and over do not know, but a majority in other age groups consider it to be the NCC, with the highest rate $69.5 \%$ of $36-45$ year-olds and the lowest rate $54.7 \%$ of $56-65$ yearolds.

When analyzed by marital status, $57.8 \%$ of widowed or separated, $52.6 \%$ of unmarried people and $50.3 \%$ of those married do not know whether radio programs are regulated. The highest proportions of people regardless of marital status consider the relevant regulations for radio programs to be appropriate, with the highest rate $53 \%$ of those widowed or separated and the lowest rate $45.4 \%$ of those unmarried. The majority of people regardless of marital status consider the NCC to be responsible for radio programs, with the highest rate $61.7 \%$ of unmarried people and the lowest rate $55.6 \%$ of those widowed or separated people.

## (3) Analysis of differences in social and economic status

The result of Chi-square tests indicates that knowing whether or not there are
relevant regulations of radio programs significantly varies by educational level, profession and individual average monthly income.

When analyzed by education level, regarding knowing whether radio programs have relevant regulations, those with the highest rates of not knowing are those with elementary school education and less ( $81.4 \%$ ) and high school and secondary school education ( $79 \%$ ); those with other levels of education level have a higher proportion of those who know, with the highest rate $66.5 \%$ of those with a master's degree or higher, and the lowest rate $50.9 \%$ with senior high and vocational school education.

When analyzed by profession, majorities in occupation groups who know whether radio programs have relevant regulations are people in manufacturing ( $52.4 \%$ ), wholesale and retail trade ( $57.7 \%$ ), publishing, audio-video production, mass communication, information, and communications ( $66.2 \%$ ), finance and insurance ( $58.8 \%$ ), professional, scientific and technology services (61.8\%), support services ( $57.9 \%$ ), education ( $64 \%$ ), public administration and national defense (58.9\%) and health care and social work services ( $52.9 \%$ ). The highest proportions in other professions do not know.

When analyzed by individual average monthly income, those earning under NT $\$ 40,000$ group have a higher proportions of not knowing if radio programs have relevant regulations, with the highest rate $69.6 \%$ in the NT\$1-NT9,999 group and the lowest rate $50.5 \%$ in the NT\$30,000-NT39,999 group. Those earning over NT\$40,000 group have a higher proportion of knowing, with the highest rate $62.3 \%$ earning NT $\$ 60,000$ or more and the lowest rate $58.3 \%$ earning NT\$50,000-NT59,999.

## Who Should Take the Main Responsibility to Ensure that Children Do Not See Any Inappropriate TV Content? Q82

## 1. Overall analysis

Up to $64.9 \%$ of the public believe that it is the main responsibility of both parents and broadcasters to ensure that children do not see any inappropriate TV content, followed by broadcasters ( $16.9 \%$ ), and parents ( $16 \%$ ) (see Figure 37).


## Figure 37 Who Should Take the Main Responsibility to Ensure that Children do not See any Inappropriate TV Content?

Base : $\mathrm{N}=1,105$, single-choice

## 2. Comparative Analysis

## (1) Analysis of regional differences

A greater proportion in each region believes that it is the responsibility of both parents and broadcasters, with the highest rate $72.6 \%$ in Yilan, Hualien, and Taitung and the lowest rate $59.2 \%$ in Taoyuan, Hsinchu and Miaoli.

## (2) Analysis of basic differences

When analyzed by gender, both men (64\%) and women (65.8\%) believe that it is the responsibility of both parents and broadcasters.

When analyzed by age, all age groups believe that it is the responsibility of both parents and broadcasters, with the highest rate $74.2 \%$ of $26-35$ year-olds and lowest rate $51.3 \%$ aged 66 and over.

When analyzed by marital status, the majority regardless of marital status who believe it is the responsibility of both parents and broadcasters, with the highest proportion was the $66.7 \%$ of those married and $60.4 \%$ of those widowed or separated was the lowest proportion.

## What Types of Content Make You Feel Upset? Q83-Q86

## 1. Overall analysis

In the past 12 months, whether the public see any objectionable or disturbing content in television programs, $60 \%$ of the respondents had not seen, while $39.8 \%$ had (see Figure 38).


Figure 38 Have you Seen Something that is Offensive or Disturbing When Watching TV Shows in the Past 12 Months?
Base: $\mathrm{N}=1,000$, single-choice (the respondents who watch TV programs)
Regarding what people find upsetting, the top three are news reports being repeated (55.3\%), political bias in reports (49.1\%), and politics/political party propaganda ( $48.6 \%$ ) (see Figure 39). Among the programs that people find offensive, the top three are political programs (55.8\%), news programs (34.4\%), and serial dramas (20\%) (see Figure 40).


Figure 39 Content that Makes You Feel Upset (Top 10)
Base: $\mathrm{N}=398$, multiple-choice (respondents who watched TV programs finding there was upsetting content in the past 12 months)


Figure 40 Programs that You Object to (Top 10)
Base: $\mathrm{N}=398$, multiple-choice (respondents who watched TV programs finding there was upsetting content in the past 12 months)

When television broadcasts content that is objectionable, the public responded by turning to another channel ( $90.8 \%$ ), switching off the TV ( $31.5 \%$ ), and complaining to other people (12.1\%) (see Figure 41).


Figure 41 How Do You React When the TV Broadcasts Content is Objectionable
Base: N=398, multiple-choice (respondents who watched TV programs finding there was upsetting content in the past 12 months)

## 2. Comparative Analysis

(1) Analysis of regional differences

The result of Chi-square tests indicates that whether people had seen any objectionable content when watching TV programs in the past 12 months significantly varies by housing tenure.

Regarding whether people had seen any objectionable content when watching TV programs in the past 12 months, people in Kaohsiung, Pingtung and Penghu had equally seen and not seen objectionable content ( $50 \%$ respectively). In the other regions, most had not, with the highest rate being $67 \%$ in Taipei City, New Taipei City.

Regarding the type of content that the people find upsetting, except for the Kaohsiung, Pingtung and Penghu, where the highest proportion was improper language ( $53.5 \%$ ), for people in Yilan, Hualien, and Taitung have the highest proportion was for antisocial behavior (50.4\%), while the other regions it was the repeated news reporting, with the highest rate of $60.9 \%$ in Yunlin, Chiayi, and Tainan and the lowest rate of $54.6 \%$ in Taichung, Changhua and Nantou.

Regarding content that is objectionable, for $42 \%$ people in Kaohsiung, Pingtung and Penghu it is the news, while for other regions, the highest proportion was for political programs, the highest rate of $67.9 \%$ in Yunlin, Chiayi, and Tainan and the lowest rate of 49.9 in Yilan, Hualien, and Taitung.

When TV broadcast content is objectionable, turning to another channel is the most frequently given response(all regions over80\%), with the highest rate of $94.2 \%$ in Yunlin, Chiayi, and Tainan and the lowest rate of $84.6 \%$ in Yilan, Hualien, and Taitung.
(2) Analysis of basic differences

When analyzed by gender, $60.4 \%$ men and $58.4 \%$ women had not seen objectionable content when watching the TV in the past 12 months

Regarding the type of content that the people find upsetting, the most frequent for men ( $57 \%$ ) is was repeated news reporting, and for women ( $54 \%$ ) it was violence.

Regarding content that is objectionable, $91.2 \%$ men and $90.4 \%$ women turn over to another channel.

When analyzed by age, $66.3 \%$ aged 66 and over, the highest rate, and $54.8 \%$ of those $36-45$, the lowest frequency, had not seen any objectionable content when watching TV in the past 12 months and. Regarding the type of content that people find upsetting, for $58.5 \%$ of those $56-65$ it is politics/political party propaganda, but for other age groups it is repeated news reporting.

Regarding content that is objectionable, for all age groups the highest proportion is for political commentary programs, with the highest rate of $68.9 \%$ for $16-25$ yearolds and the lowest rate of $40 \%$ for $46-55$ year-olds.

When television broadcasts content that is objectionable, the most frequent response for all age groups is to turn to another channel, with the highest rate of $95.5 \%$ for $56-65$ year-olds and the lowest rate of $81.8 \%$ for those aged 66 and over.

When analyzed by marital status, regardless of marital status, a majority had not seen any objectionable content when watching TV programs in the past 12 months, with the highest rate of $69.8 \%$ among those widowed or separated people and the lowest rate of $57.3 \%$ among those unmarried. Regarding the type of content that the people find upsetting, for $58.6 \%$ of those unmarried and $51.8 \%$ of those married it is repeated news reporting, while for $63.5 \%$ of those widowed or separated people it is
politics/political party propaganda. Regarding content that is objectionable, the majority of people regardless of marital status of political commentary program, with the highest rate $63.3 \%$ of those unmarried and the lowest $50 \%$ of those married.

When television broadcast content that is objectionable, the most frequent response regardless of marital status is to turn to another channel, with the highest rate $92.7 \%$ among those widowed or separated and the lowest rate $89.5 \%$ among those married people.
(3) Analysis of differences in social and economic status

The result of Chi-square tests indicates that whether people had seen any objectionable content when watching TV programs in the past 12 months significantly varies by educational level and occupation.

When analyzed by education level, the highest proportion (58.4\%) of people with a master's degree or higher had seen objectionable content when watching TV programs in the past 12 months, , while the majority those of those in other education groups had not, with the highest rate of $80.6 \%$ of those with high school and secondary school education and the lowest rate $55.6 \%$ with junior college education.

When analyzed by occupation, regarding whether people had seen any objectionable content when watching TV programs in the past 12 months, except for people who work in agriculture, forestry, fishery and husbandry (50.4\%), people in professional, scientific and technology services (68.1\%), people in public administration and national defense ( $66.3 \%$ ) and jobseekers ( $57.3 \%$ ) have the highest proportion saying yes, while the highest proportion in the other occupation groups had not.

## Frequency of Sex Appearing in TV Programs Q87

## 1. Overall analysis

Regarding the frequency of sex appearing in TV programs, $73.9 \%$ consider it acceptable, $12 \%$ followed by not knowing, $10.1 \%$ too much and $4.1 \%$ too little (see Figure 42).


Figure 42 Acceptability of Sex appearing in TV Programs
Base : $\mathrm{N}=1,000$, single-choice (The respondents who watch TV programs)

## 2. Comparative Analysis

## (1) Analysis of regional differences

The result of Chi-square tests indicates that the acceptability of sex appearing in TV programs significantly varies by region.

When analyzed by region, the frequency of sex appearing in TV programs is considered to be acceptable in all regions, with the highest rate of $80.2 \%$ in Taipei City, New Taipei City and Keelung and the lowest rate of $56.7 \%$ in Yunlin, Chiayi, and Tainan. In addition, people in Yunlin, Chiayi, and Tainan have the highest proportion who consider there to be too little compared to other regions.
(2) Analysis of basic differences

The result of Chi-square tests indicates that the frequency of sex seen in TV programs significantly varies by gender, age and marital status.

When analyzed by gender, most consider sex in TV programs acceptable, $77.6 \%$ of men and $70.4 \%$ of women.

When analyzed by age, a majority in all age groups find the level of sex acceptable, with the highest rate of $79.7 \%$ of those $46-55$ and the lowest rate of $68.2 \%$ of those 66 and over. In addition, people aged $26-35(8.1 \%)$ is the highest proportion who consider there to be too little compared to other age groups.

When analyzed by marital status, the majority regardless of marital status find it acceptable, with $76.9 \%$ of those who are widowed or separated being the highest rate and the lowest rate $73.4 \%$ of those unmarried people. In addition, married people have the higher proportion of considering as too much than other marital status.
(3) Analysis of differences in social and economic status

The result of Chi-square tests indicates that the residential status for the frequency of sex seen in TV programs significantly varies by housing tenure.

When analyzed by housing tenure, both renters (72.4\%) and homeowners
( $82.8 \%$ ) have the highest proportion of considering as acceptable. In addition, a higher proportion of homeowners ( $11.3 \%$ )consider there to be too much sex compared to renters (4.2\%).

## Frequency of Violence in TV Programs Q88

## 1. Overall analysis

Regarding the frequency of violence in TV programs, $62.6 \%$ overall consider levels acceptable, followed by too much (28.4\%) and too little (2.5\%) (see Figure 43). In addition, those unknown is $6.5 \%$.


Figure 43 Frequency of Violence in TV Programs
Base : $\mathrm{N}=1,000$, single-choice (The respondents who watch TV programs)

## 2. Comparative Analysis

## (1) Analysis of regional differences

Regarding the frequency of violence in TV programs, the majority of people regardless of marital status find the level of violence acceptable, with the highest rate $70.5 \%$ in Taipei City, New Taipei City and Keeling and the lowest rate $51.1 \%$ in Yunlin, Chiayi and Tainan.

## (2) Analysis of basic differences

The result of Chi-square tests indicates that the acceptability of violence in TV programs significantly varies by gender and marital status.

When analyzed by gender, $69.5 \%$ males and $56.2 \%$ females find the levels of violence acceptable.

When analyzed by age, the $68.2 \%$ of those $16-25$, is the highest proportion and $58.6 \%$ of those $36-45$ is the lowest proportion.

When analyzed by marital status, $63.4 \%$ of those unmarried was the highest proportion and $62.1 \%$ in married was the lowest.

## Frequency of Bad Language Appearing in TV Programs Q89

## 1. Overall analysis

Regarding the frequency of bad language appearing in TV programs, most people consider it to be acceptable ( $71.7 \%$ ), followed by too much (19.9\%) and too little (3\%). In addition, the proportion of unknown is $5.4 \%$ (see Figure 44).


Figure 44 Acceptability of Bad Language Appearing in TV Programs
Base : N=1,000, single-choice (The respondents who watch TV programs)

## 2. Comparative Analysis

## (1) Analysis of regional differences

The result of Chi-square tests indicates that the frequency of bad language appearing in TV programs significantly varies by region.

Regarding the frequency of bad language appearing in TV programs, most people in all regions find it acceptable, with the highest rate of $79.9 \%$ in Taipei City, New Taipei City and Keelung Kaohsiung and the lowest rate of $58.9 \%$ in Yunlin, Chiayi, and Tainan and Yilan, Hualien, and Taitung. In addition, people in Yilan, Hualien, and Taitung have a higher proportion that consider it too much, more than other regions.

## (2) Analysis of basic differences

The result of Chi-square tests indicate that the frequency of bad language appearing in TV programs significantly varies by gender, age and marital status.

When analyzed by gender, $71.4 \%$ men and $69.4 \%$ women find bad language acceptable.

When analyzed by age, most people in all age groups find it acceptable, with the highest rate of $80.4 \%$ those aged $16-25$ and the lowest rate of $65.3 \%$ those aged 66 and over. In addition, those 16-25 (7.5\%) have the lowest rate who consider to be too much compared to other age groups.

When analyzed by marital status, regardless of marital status, people find bad language acceptable, with the highest rate $76.9 \%$ of those unmarried and the lowest
rate $64.3 \%$ of those widowed or separated.

## E. Privacy Protection

## Public Attitude toward Violating Privacy of Public Figures Q94

## 1. Overall analysis

Regarding whether the TV programs can violate the privacy of public figures without consent, most people disagree ( $72.3 \%$ ) (including strongly disagree and disagree) while only $9.2 \%$ agree (including strongly agree and agree) (see Figure 45).


Figure 45 Attitudes toward Violating Privacy of Public Figures
Base: $\mathrm{N}=1,105$, single-choice

## 2. Comparative Analysis

(1) Analysis of regional differences

The result of Chi-square tests indicates that whether TV programs can violate the privacy of public figures significantly varies by region.

In all regions, in principle, the rate of disagreement is higher than that of agreement, with the highest rate $79.3 \%$ in Taichung, Changhua and Nantou and the lowest rate of $66.5 \%$ in Kaohsiung, Pingtung and Penghu.
(2) Analysis of basic differences

When analyzed by gender, the majority of both men (69.7\%) and women (74.8\%) disagree.

When analyzed by age, those aged 26-35 have the highest rate of disagreement ( $76 \%$ ) and the lowest rate of $69.2 \%$ are aged 66 and over.

When analyzed by marital status, the highest rate of those who disagree are those unmarried at $73.9 \%$ and the lowest rate is $64.4 \%$ of those widowed or separated.
(3) Analysis of differences in social and economic status

The result of Chi-square tests indicates that whether TV programs can violate the privacy of public figures significantly varies by individual average monthly income.

All income groups disagree, with the highest rate $78.1 \%$ of those earning NT $\$ 60,000$ or more and the lowest rate $64.9 \%$ of those earning NT1-9,999.

## Attitude toward Violating the Privacy of the General Public Q95

## 1. Overall analysis

Regarding whether TV programs can violate the privacy of the general public, 81.6\% of the general public disagree (including strongly disagree and disagree), only $3.9 \%$ agree (including strongly agree and agree) (see Figure 46).


Figure 46 Attitudes toward Violating Public Privacy
Base: $\mathrm{N}=1,105$, single-choice

## 2. Comparative Analysis

## (1) Analysis of regional differences

The result of Chi-square tests indicates that whether TV programs can violate the privacy of the general public significantly varies by region.

The majority of people in all regions disagree, with the highest rate $86.3 \%$ in Taipei City, New Taipei City and Keelung and the lowest rate of $73.8 \%$ in Kaohsiung, Pingtung and Penghu.
(2) Analysis of basic differences

The result of Chi-square tests indicates that whether TV programs can violate the privacy of the general public significantly varies by gender.

When analyzed by gender, $84.8 \%$ of women and $78.3 \%$ of men disagree.
When analyzed by age, those aged 46-55 have the highest rate of disagreement ( $86.3 \%$ ) and the lowest rate of $74.9 \%$ are those aged 66 and over.

When analyzed by marital status, all disagree with the highest rate of $83.9 \%$ among unmarried people and the lowest rate $76.8 \%$ among those widowed or separated.
(3) Analysis of differences in social and economic status

The result of Chi-square tests indicates that whether TV programs are seen as
violating the privacy of the general public significantly varies by individual average monthly income.

When analyzed by individual average monthly income, the majority in all income groups disagree, with the highest rate $90.9 \%$ in the NT\$60,000 or more group and the lowest rate of $73.9 \%$ in the NT\$1-NT9,999 group.

## The Most Common Media Channel that Violates the Privacy of Public Figures Q96

## 1. Overall analysis

According to the survey results, the public believes that the most common channel that violates the privacy of public figures without prior consent is television, with a rate of $35.8 \%$. Following by all the channels (19.8\%) and magazines (14.3\%). In addition, the proportion of emerging media (including news websites/app, other websites/apps and TV websites/apps) (16\%) is higher than magazines (see Figure 47).


Figure 47 The Most Common Channel that Violates the Privacy of Public Figures Base: $\mathrm{N}=1,105$, single-choice

## 2. Comparative Analysis

(1) Analysis of regional differences

Most regions think that TV is the most common medium violating the privacy of public figures, with the highest rate of $46.3 \%$ in Yunlin, Chiayi, and Tainan and the lowest rate of $37.4 \%$ in Taoyuan, Hsinchu and Miaoli. Taipei City, New Taipei City and Keelung was the exception where the highest rate was for all media (43.5\%).
(2) Analysis of basic differences

The result of Chi-square tests indicates that the most commonly seen medium that violates the privacy of public figures without prior consent significantly varies by marital status.

When analyzed by gender, both $36.6 \%$ of women and $35.1 \%$ of men believe that television is the most common medium that violates the privacy of public figures
without prior consent.
When analyzed by age, a majority of people in all age groups consider TV as the most common way of violating the privacy of public figures without consent, with the highest rate of $44.4 \%$ aged 66 and over, and the lowest rate of 27.2\% 16-25.

When analyzed by marital status, all marital status consider that TV is the most common way to expose the privacy of public figures without consent, with the highest rate of $40 \%$ in widowed/separated people and the lowest rate of $30.3 \%$ in unmarried people.

## (3) Analysis of differences in social and economic status

The result of Chi-square tests indicates that the most common media that violates the privacy of public figures without prior consent significantly varies by housing tenure.

When analyzed by housing tenure, both home owners (36.9\%) and house renters ( $33.6 \%$ ) considers that TV is the most common way to expose the privacy of public figures without consent, but a higher proportion of those who rent (26.8\%) compared to home owners ( $17.5 \%$ )consider all the media than.

## The Most Common Media Channel that Violates the Privacy of General Public Q99

## 1. Overall analysis

The most common channel for uncovering the privacy of the general public without prior consent is TV ( $36.3 \%$ ), followed by all media channels ( $16.6 \%$ ) and news websites/apps $(9.9 \%)$. The proportion of emerging media accumulated (including news websites/apps, other websites/apps, TV websites/apps) is $20.1 \%$, exceeding that of the second medium (see Figure 48).


Figure 48 The Channels That Most Violate the Privacy of the General Public Base: $\mathrm{N}=1,105$, single-choice

## 2. Comparative Analysis

(1) Analysis of regional differences

TV is the most common medium for uncovering the privacy of the general public without prior consent in most region, except people in Taipei City, New Taipei City and Keelung, with the highest rate $43 \%$ in Kaohsiung, Pingtung and Penghu and the lowest rate of $33.7 \%$ in Taoyuan, Hsinchu and Miaoli.

## (2) Analysis of basic differences

When analyzed by gender, both men and women consider TV as the most common channel to expose the general public's privacy without consent, with men accounting for $34.5 \%$ and women for $32.0 \%$.

When analyzed by age, all age groups consider TV as the most common channel to expose the general public's privacy without consent, and the proportion decreases by age with the highest rate of $45.9 \%$ among people aged 66 and over and the lowest rate of $26.6 \%$ in people aged 16-25.

When analyzed by marital status, TV is the most common medium to expose the general public's privacy without consent, with the highest rate of $40.3 \%$ of those widowed or separated and the lowest rate $31 \%$ of those unmarried.


[^0]:    ${ }^{1}$ This survey was conducted in Taiwan, Penghu, Kinmen and Matsu. Since Kinmen's and Matsu's populations are too small for analysis, the samples of Taiwan proper (including Penghu) were separated from those of Kinmen and Matsu. The numbers were weighted by city or county, and samples were regrouped according to where interviewees register their domicile. (Namely, an interviewee who registered his domicile in Kinmen or Matsu and received the interview in Taiwan would be classified as a valid sample of Kinmen and Matsu; while an interviewee who registered his domicile in Taiwan proper and received the interview in Kinmen or Matsu would be processed as a valid sample of Taiwan proper.) This led to a slight difference between the final numbers of valid samples and the numbers of completed samples shown in Tables 5 \& 6, which were sorted by "survey site."

