2021

Taiwan Cultural Content Industries Survey Report. 2021. Vol.III

Popular Music · Radio Industries

TAICCA TAIWAN CREATIVE CONTENT AGENCY

III

TAICCA

FOREWORD

I SPOTLIGHT

II OVERVIEW

III FORECAST

List of Tables

List of Figures

FOREWORD

1 Scope of the Survey

This report was created in order to accurately reflect the current cultural content industry in Taiwan. It provides the government and the industry with the latest industry development trends and serves as a basis for the establishment of industry development goals and the implementation of policies. In 2021, the Taiwan Creative Content Agency (TAICCA) conducted the Cultural Content Industry Survey Report and divided the industry surveys into four separate volumes according to their industry relevance, including the Book, Magazine, Comic, and Original Image Industries, the Motion Picture, Television, and Animation Industries, the Popular Music and Radio Industries, and the Gaming and Esports Industries.

This is volume III of the 2021 Cultural Content Industry Survey Report, which overs the popular music industry and other related sub-industries. The popular music industry was once dominated by record companies' music productions. However, due to technological advancements, the decline in revenue from physical music products, the emergence of online music platforms, and the increasing importance of live performances, the industry has gradually developed a systematic model centered on artists (i.e., singers or bands). This resulted in a fundamental change in the industry's product portfolio, profit mechanism, and the strategic positioning of record companies. The increasing ubiquity of the Internet and mobile technology has made popular music products available in a variety of formats, including Internet downloading and streaming services. This encourages other key players, such as digital music platforms and telecommunications firms, to engage in music industry activities. Subsequently, the relationship between popular music, its audience, and the media has evolved over time.

Therefore, the popular music industry is centered on the singers/bands, and the value of these artists is continuously packaged and accumulated through multiple commercialization channels such as music/songs, other cultural contents, derivative activities, live performances, and other related products and services. In addition to the artists/bands, other key players in the business include songwriters, record companies, management agencies, performance event planning companies, collective management organizations, as well as the backend sales and performance channels (record stores, KTVs, venues, etc.).

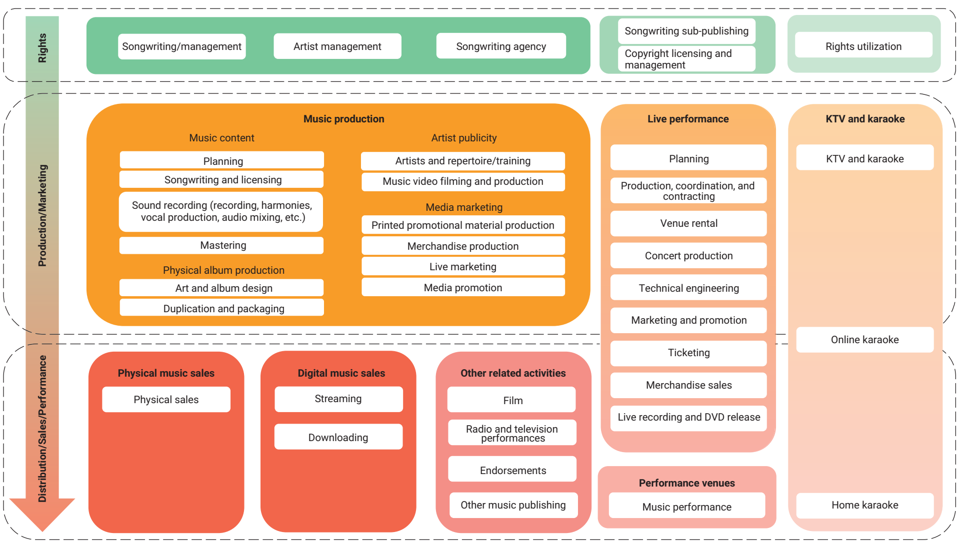


Figure 0-1. Activities in the popular music industry

■ ***Source:*** Created by this survey.

Additionally, commercialization has become more diverse and complex as a result of digital technology. It was once believed that digital technology would erode the role of record companies. However, from another perspective, record companies can be viewed as critical resource-sharing platforms, particularly in light of the trend toward increasing resource complexity. Apart from the creative processes and performances of singers/bands, music production requires record labels to integrate professional resources such as A&R, music production/distribution, copyright management, marketing, event planning, and talent management. As technology advances, the functions of a record company will evolve in lockstep with the trends, much like how an amoeba adapts to its surroundings. Apart from record labels, other businesses in the value chain can expand upstream or downstream to form alternative modes of operation in conjunction with music creation and production.

As a result, while there are record companies/management agencies dedicated to artists in the popular music industry, there are also independent singers/bands who have developed their own methods of communicating with the mass audience without the assistance of record companies/management agencies. Moreover, the digital music streaming/downloading platform industry and the performance venue industry are also actively involved in the restructuring of the industry and its patterns.

In order to reflect the actual development of the popular music industry, this survey combines qualitative and quantitative methods, and is based on the upstream, midstream, and downstream value chain relationships between rights, production/promotion, and distribution/sales/performances. It investigates subindustries such as collective management organizations, the songwriting publishing industry, the music production/distribution/artist management industry, the music streaming/downloading platform industry, the performance event planning and production industry, the performance support industry, the performance event industry, the ticket-sales industry, the KTV industry, and the karaoke product industry.

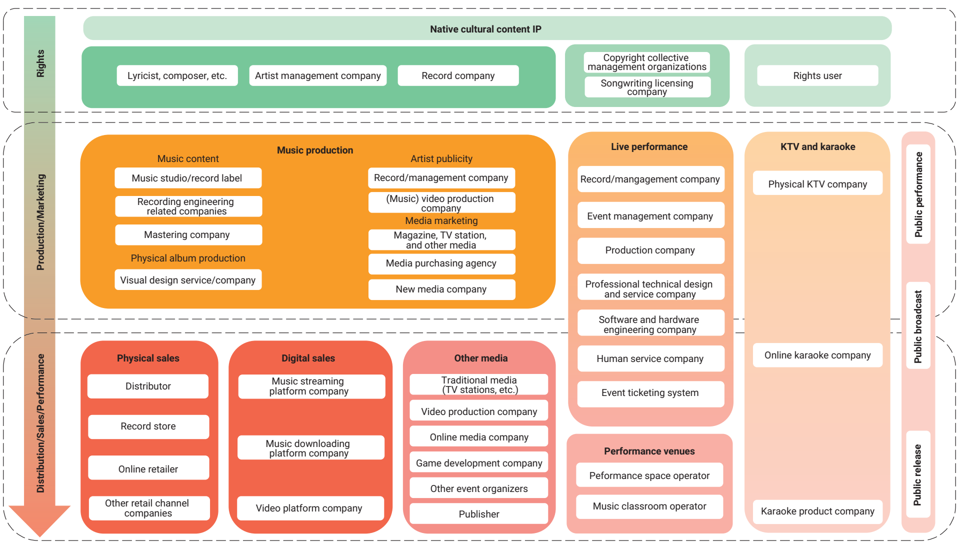


Figure 0-2. Popular music industry participants

■ ***Source:*** Created by this survey.

The survey respondents of the broadcasting industry were selected based on the announcements of the National Communications Commission (NCC), with a total of 185 companies. Historically, radio stations dominated the broadcasting industry. However, as technology advances, the industry has begun to offer new services, such as Internet broadcasting, as part of the digital convergence trend. These include the network services launched by existing radio stations, such as online streaming broadcast platforms, live streaming services, mobile applications (apps), and even podcasts, which have been growing rapidly in popularity in the past two years. These services affect the original industry value-chain, leading to the repositioning of radio stations within the industry. Although radio stations have long been critical in delivering information for vehicle use or disaster management, the broadcast industry may require reorganization and reconfiguration as the Internet of Vehicles (IoV) and 5G eras arrive.

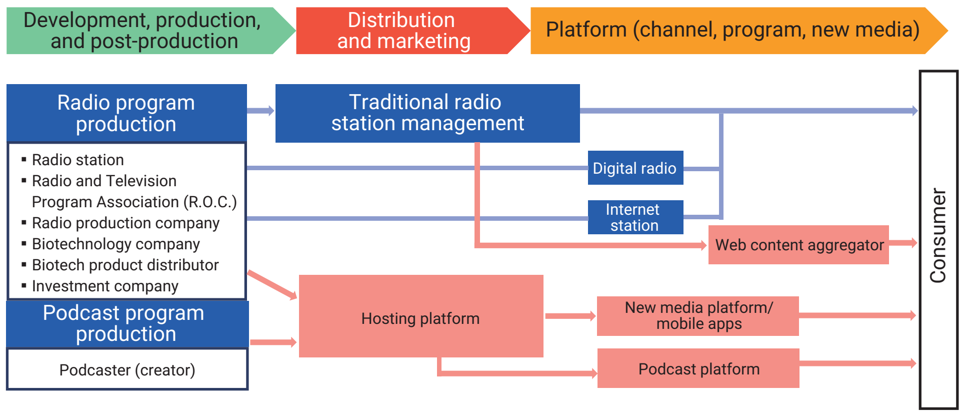


Figure 0-3. Radio/podcast value chain

■ ***Source:*** Created by this survey.

2 Chapter Overview

The 2021 Taiwan Cultural Content Industry Survey Report Vol. III: Popular Music and Radio Industries is split into three chapters. Chapter 1 is a spotlight on significant and relevant statistical results from the survey that are of interest to the industry. Chapter 2 is an overview of this year's survey results for the subindustries in popular music, including a summary of basic information such as the number of companies, manpower, output, and revenue structure, as well as song/album charts, the number of events, etc. Chapter 3 is a forecast of possible trends and prospects for the industry in terms of digitalization and IP licensing.

The survey report on the radio industry is also split into three chapters. Chapter 1 is a spotlight on significant and relevant statistical results from the survey that are of interest to the industry. Chapter 2 is an overview of this year's survey results for the various aspects of radio, including information on the number of companies, scale of capital and manpower, and revenue structure. Chapter 3 is a forecast of the digital development trend and prospects for the industry.

Data descriptions in the texts as well as values presented in the charts of this report are calculated from the original data and rounded to either the nearest whole number or the nearest two decimal places. Therefore, certain data will have inconsistency due to its rounded sum, but it will not affect the interpretation of the data in terms of percentages and totals for each survey item.

SPOTLIGHT

1 Overview of Taiwan's Music Market Sales Revenue

According to the Recording Industry Foundation in Taiwan (RIT), the sales revenue of Taiwan's music market in 2020 was approximately NT$2.273 billion, a growth of 7.07% from 2019.

Table 1-1. Taiwan's music market sales revenue from 2016 to 2020

Unit: NT$100 million, %

		2016	2017	2018	2019	2020	Compared to 2019 (YoY)
Revenue – Singles	Amount	0.29	0.22	0.21	0.14	0.11	-19.01%
	Percentage	1.24	1.01	0.94	0.65	0.49	-
Revenue – Albums	Amount	6.98	4.99	4.35	3.88	3.85	-0.85%
	Percentage	30.03	23.24	19.62	18.29	16.93	-
Vinyl record sales		0.66	0.59	0.85	0.63	0.83	-
CD sales		6.31	4.17	3.28	3.22	2.92	-
Other recorded products sales		0.01	0.23	0.23	0.03	0.10	-
Revenue – Music Videos	Amount	1.35	0.95	0.56	0.43	0.43	-1.39%
	Percentage	5.80	4.41	2.52	2.05	1.89	-
Revenue – Physical Products	Amount	8.61	6.15	5.12	4.46	4.39	-1.47%
	Percentage	37.07	28.65	23.08	20.99	19.31	-
Revenue – Digital Downloads	Amount	0.55	0.68	0.56	0.32	0.24	-24.88%
	Percentage	2.37	3.18	2.54	1.49	1.05	-
Single sales		0.26	0.18	0.16	0.13	0.09	-
Album sales		0.27	0.27	0.3	0.18	0.14	-
Music video and other sales		0.02	0.24	0.11	0.01	0.00	-
Revenue – Digital Streaming	Amount	13.16	13.7	15.83	15.98	17.67	10.59%
	Percentage	56.62	63.82	71.37	75.25	77.72	-
Subscription revenue		10.99	11.48	13.03	12.34	13.26	-
Sharing revenue		0.83	0.92	0.82	1.24	1.35	-
Video revenue		1.34	1.29	1.98	2.4	3.06	-
Revenue – Mobile Digital Music Products	Amount	0.92	0.93	0.67	0.48	0.44	-9.44%
	Percentage	3.94	4.35	3.00	2.28	1.92	-
Revenue – Digital Sales	Amount	14.63	15.31	17.06	16.78	18.34	9.34%
	Percentage	62.93	71.35	76.92	79.01	80.69	-
Total Sales Revenue		23.24	21.46	22.18	21.23	22.73	7.07%
Video broadcasting royalties		0.24	0.5	0.32	0.45	0.28	-37.26%

■ ***Notes:***
1.The RIT changed the statistical items in 2016 (and backcalculated the sales in 2015) to conform to development trends in digital music.
2.The RIT data set includes sales channel statistics, and thus covers the top 12 domestic music record labels as well as independent releases. However, these figures should be used as a guide for observing market scale and structural changes, as their coverage is still limited.
3.The data on royalties came from the Association of Recording Copyright Owners of Taiwan (ARCO).
4.The percentage and comparison of data were calculated using the original data.
■ ***Source:*** The Recording Industry Foundation in Taiwan (RIT).

2 Overview of Top Songs on Music Streaming Services

The charts of top songs on digital music streaming platforms revealed that the majority of top songs were general song releases, accounting for approximately 75% to 86% of total top songs. Songs that were used in film and television productions made up between 14% and 25% of the total.

Table 1-2. Percentage of film and television soundtracks on the Spotify and KKBOX annual charts from 2019 to 2020

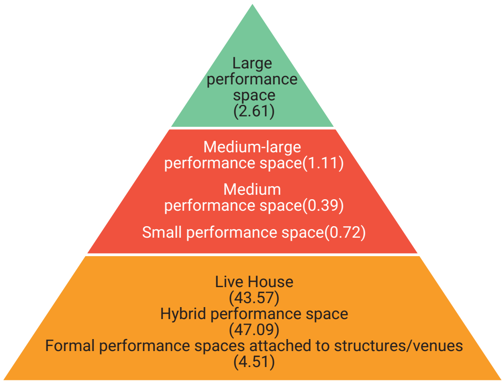
Unit: %

	Percentage of songs on Spotify		Percentage of songs on KKBOX (Mandarin)		Percentage of songs on KKBOX (Taiwanese)	
	2019	2020	2019	2020	2019	2020
General	82	86	84	86	81	75
Film and television	18	14	15	14	18	25
Game	-	-	1	-	1	-
Total	100	100	100	100	100	100

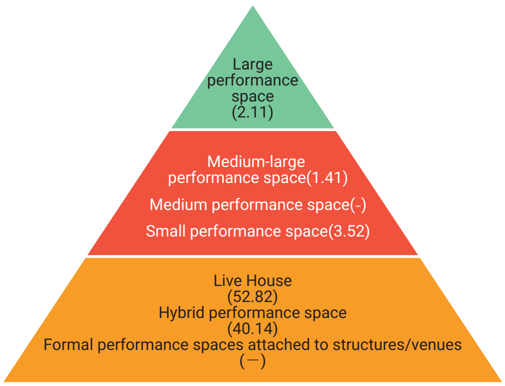
■ ***Notes:*** The ‘general’ category refers to songs that are released without association with other cultural or creative products. The ‘film and television’ category refers to songs that are used in film or television productions. The ‘game’ category refers to songs that are used in video games.
■ ***Source:*** Spotify “Top 50 Hot Hits from 2019 to 2020 (Taiwan)”, KKBOX “Top 100 Mandarin Singles on the Yearly Chart” and “Top 100 Taiwanese Singles on the Yearly Chart” from 2019 to 2020.

3 Number of Ticketed Performances by Domestic and Foreign Singers/Bands

Singers/bands at varying stages of development benefitted from a variety of performing spaces. In Taiwan, the market for performance and exhibition spaces remained pyramidal even during the COVID-19 pandemic.



Overview of ticketed performances by Mandarin singers/bands (%)



Overview of ticketed performances by Mandarin singers/bands (%)

Figure 1-1. Distribution of ticketed performances by domestic and foreign singers/bands – sorted by Mandarin and non-Mandarin artists

■ ***Notes:***
1.A large performance venue accommodates 10,000 people or more; a medium-large performance venue accommodates 3,000 to 10,000 people; a medium-sized performance venue accommodates 1,000 to 3,000 people; a small performance venue accommodates 1,000 people or less.
2.The information in the Cultural Activities Information System has already excluded non-popular music events; the content of the events is declared by the businesses themselves.
3.This table does not include outdoor and other venues.
4.Percentages do not add up to 100% due to rounding of data.
■ ***Source:*** The Cultural Activities Information System of the Ministry of Culture - 2020 popular music events (performances and festivals), the information of major music venues compiled by this survey.

4 Revenue Trend in Taiwan's Radio Industry

The revenue of the radio industry was estimated at NT$6.368 billion in 2020, down 2.55% from 2019. Even though businesses in the industry were actively exploring new business models such as live streaming, podcasting, and developing their own mobile apps, they could not compete with emerging media formats, resulting in the industry's continued revenue decline.

The revenue estimates in this survey rely on the business tax statistics for the six-digit Standard Industrial Classification (SIC) code. However, based on the sales revenue displayed under the SIC code, it is plausible that additional industries producing cultural content were classified under the same SIC code. Furthermore, since there has not been a complete questionnaire survey and in-depth interview of the radio industry since 2015, there are not enough detailed and concrete standards. As a result, only estimates of the overall industry's revenue are provided this year.

Table 1-3. Changing trends in the radio industry revenue from 2015 to 2020

Unit: NT$100 million, %

	2015	2016	2017	2018	2019	2020
Radio industry revenue	69.09	65.32	64.80	62.37	65.35	63.68
Annual growth rate	-1.67	-5.46	-0.80	-3.75	4.78	-2.55

■ ***Source:*** Estimated by this survey.

II OVERVIEW

1 Popular Music Industry

1.1. Industry overview

1.1.1. Overview of the total revenue of Taiwan's pop music industry in 2020

The total revenue of Taiwan's pop music industry in 2020 was NT$19.707 billion, a 22.63% decrease compared to the same period last year (the revenue in 2019 was NT$25.471 billion). The decline was primarily caused by the impact of the COVID-19 pandemic. In terms of the structure of total revenue, the music "production/distribution/artist management" industry accounted for the highest proportion, followed by the "performance event planning and production" industry and the "music streaming/downloading platform" industry.

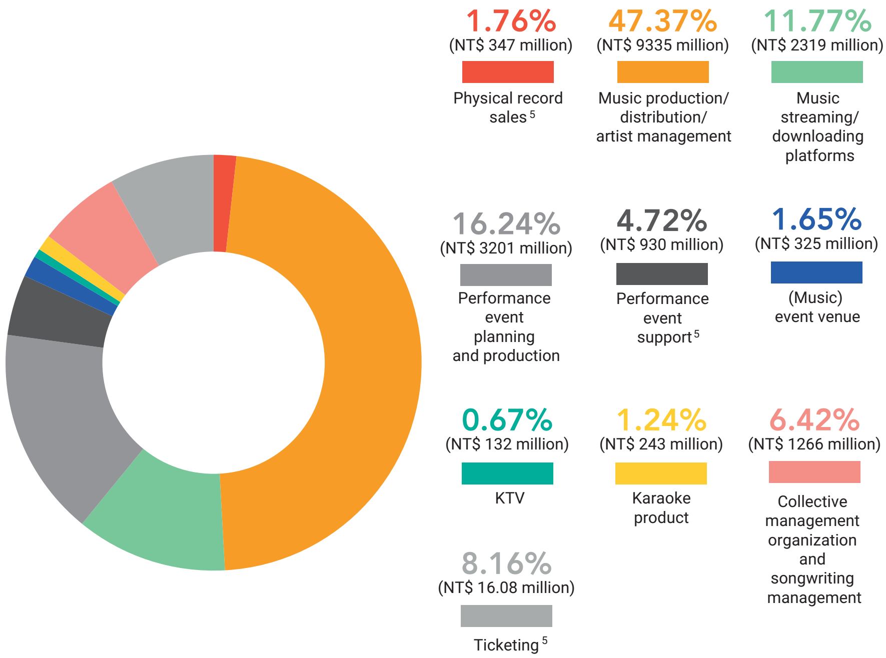


Figure 2-1. Total revenue structure of the popular music industry in 2020

■ ***Notes:***
1.This is the revenue data of the major companies.
2.Certain enterprises engage in business operations in other industries. Due to the nature of the data, classification is based on a company's primary line of business. As a result, some data may have been double tallied when referring to other content sectors or other industries.
3.This data may be lower than the actual revenues of the companies, as some of the companies adopt tax-saving or tax-exempt (triangular trade) practices, or small-scale operators (companies) with a monthly revenue of less than NT$200,000 are subject to business tax according to the assessment.
4.For the purpose of comparing with the data of previous industry surveys, only the revenue of the KTV companies and the karaoke product companies that contribute to the popular music industry (copyright) was calculated in this year's industry survey in comparison to 2018, as the revenue from catering by KTV companies and equipment rental/trade by karaoke product companies are not core businesses of the popular music industry.
5.The revenue from 2019 to 2020 added revenues from the physical record sales industry, the event support industry, and the ticketing industry.
6.Percentages do not add up to 100% due to rounding of data.
■ ***Source:*** The data was compiled from information provided by the Financial Information Agency of the Ministry of Finance.

1.1.2. Overview of export and domestic sales of Taiwan's popular music industry

The structure of export and domestic sales revealed that the domestic sales revenue of Taiwan's popular music industry was NT$16.846 billion (85.48% of total sales), a fall of 20.29% from 2019. This was due to the COVID-19 pandemic, which reduced the volume of song releases, marketing, and performances. Export revenue was NT$2.86 billion (14.52% of total sales), down 34.04% from the previous year. Global border controls impeded overseas travel, reducing the capacity for activities abroad.

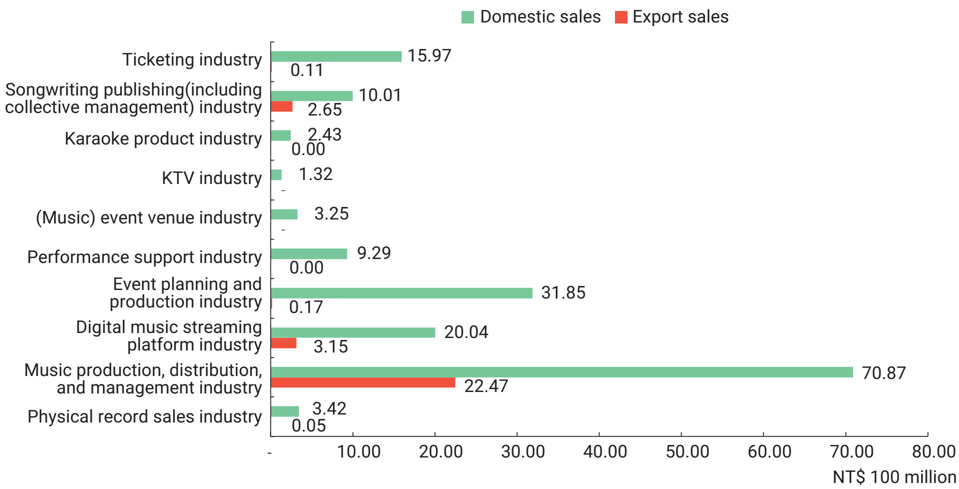


Figure 2-2. Domestic and export sales structure of the popular music industry in 2020

■ ***Notes:***
1.This is the revenue data of the major companies.
2.Certain enterprises engage in business operations in other industries. Due to the nature of the data, classification is based on a company's primary line of business. As a result, some data may have been double tallied when referring to other content sectors or other industries.
3.This data may be lower than the actual revenues of the companies, as some of the companies adopt tax-saving or tax-exempt (triangular trade) practices, or small-scale operators (companies) with a monthly revenue of less than NT$200,000 are subject to business tax according to the assessment.
4.For the purpose of comparing with the data of previous industry surveys, only the revenues of the KTV companies and the karaoke product companies that contribute to the popular music industry (copyright) were calculated in this year's industry survey in comparison to 2018, as the revenues from catering by KTV companies and equipment rental/trade by karaoke product companies are not core businesses of the popular music industry.
5.This year's calculation of revenues included revenues from the physical record sales industry, the event support industry, and the ticketing industry.
6.The export values of the event support industry and the karaoke product industry in 2020 were NT$375,900 and NT$103,400, respectively.
7.Percentages do not add up to 100% due to rounding of data.
■ ***Source:*** The data was compiled from information provided by the Financial Information Agency of the Ministry of Finance.

1.1.3. Overview of capital distribution in Taiwan's popular music industry

In terms of registered capital, the capital of most companies in the popular music industry in Taiwan was below NT$5 million. Businesses with a capital of more than NTt$100 million were streaming platform operators, ticketing platform operators, etc.

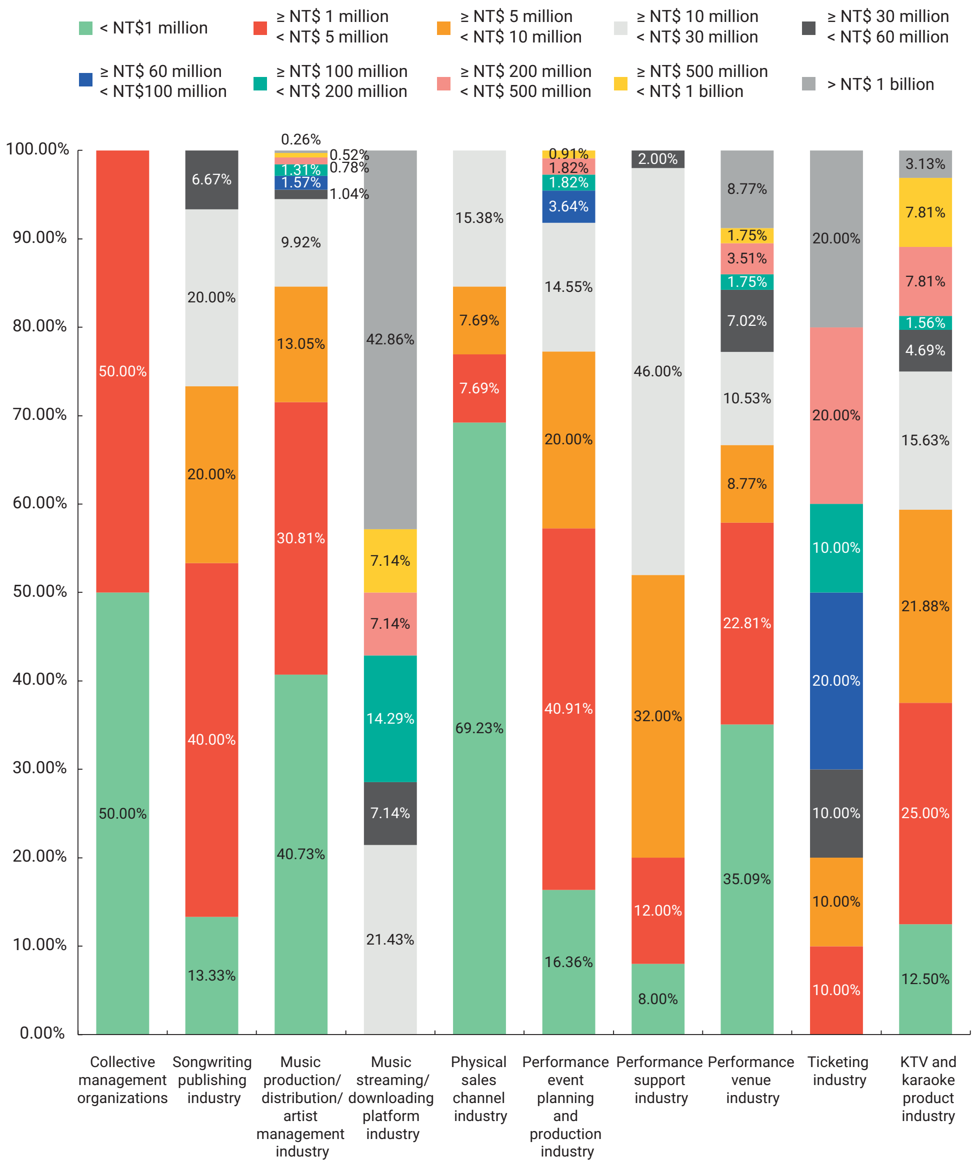


Figure 2-3. Distribution of Taiwan's popular music industry by registered capital in 2020

■ ***Notes:*** Percentages do not add up to 100% due to rounding of data.
■ ***Source:*** Organized by this survey.

1.1.4. Overview of number of employees in Taiwan's popular music industry

The number of employees in each sort of company in Taiwan's popular music industry varies according to their business. The industries of "music production/distribution/artist management," "performance event planning and production," and "performance venue" employed the most people, accounting for approximately 32.58%, 28.22%, and 20.01%, respectively, of total employment.

Table 2-1. Overview of the number of employees in the popular music industry in 2020

Unit: %

Industry	Number of people	Ratio
Collective management organizations and music publishers	133	2.15
Music production/distribution/artist management	2,017	32.58
Music streaming/downloading platforms	375	6.06
Performance event planning and production	1,747	28.22
Performance support	435	7.03
Performance venue	1,239	20.01
Ticketing	245	3.96
Total	6,191	100

■ ***Notes:***
1.To avoid bias in the survey, the number of individuals employed in the physical music sales channel industry was not approximated for the time being, due to the industry's large proportion of part-time employees.
2.Due to increased demand for service and catering personnel, the KTV and karaoke product industries employed an estimated 7,036 people. This figure was omitted from the table to avoid reader confusion, as only the music copyright portion of these sectors is relevant to popular music.
3.Percentages do not add up to 100% due to rounding of data.
■ ***Source:*** Organized by this survey.

1.1.5. Overview of Taiwan's popular music industry in 2020 by scale of manpower

In terms of the distribution of manpower, most businesses in the popular music industry employed fewer than 24 people. The demand for manpower was only higher in the KTV and karaoke industries due to the nature of their businesses. However, in the "music production/distribution/artist management industry," about 40% of businesses had an average of 2 to 4 employees. This was because more artist management companies with only one artist/band were outsourcing to other businesses.

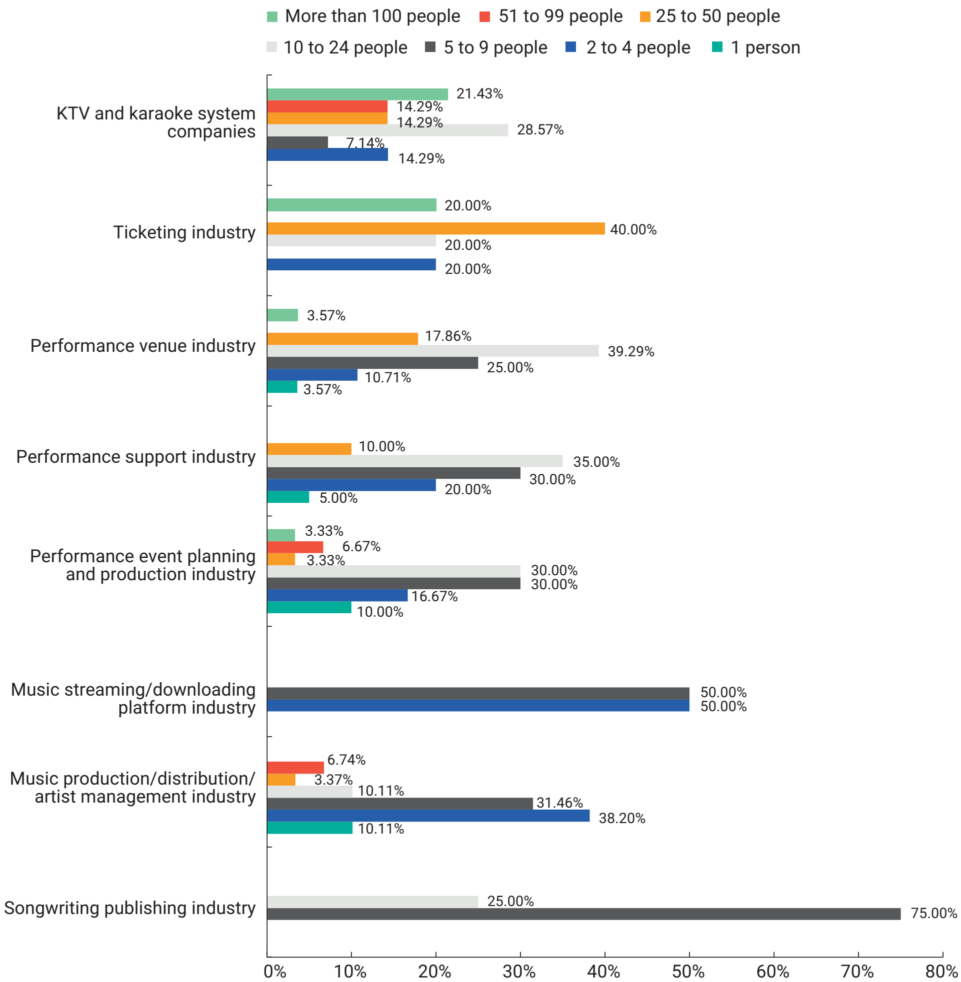


Figure 2-4. Distribution and number of people employed in each subindustry of Taiwan's popular music industry in 2020 (%)

■ ***Notes:*** Percentages do not add up to 100% due to rounding of data.
■ ***Source:*** Organized by this survey.

1.2. Revenue and business model

1.2.1. Overview of revenue structure of Taiwan's popular music industry

The revenue of the "music production/distribution/artist management" industry primarily came from music production (23.34%), song licensing and copyright management (20.67%), and artist management (20.08%). The revenue structure of the "performance event planning and production" industry had music event planning income accounting for the highest percentage (34.91%), followed by music event production/engineering income (27.10%).

Table 2-2. Revenue structure of the subindustries in Taiwan's popular music industry in 2020

Unit: %

Industry	Song-writing manage-ment (N=5)	Music production, distribution, and artist management (N=89)	Music streaming and downloading platform (N=2)	Performance event planning and production (N=24)	Perfor-mance support (N=16)	Perfor-mance venue (N=31)	Ticketing (N=4)	KTV and karaoke product (N=14)
Music production	-	23.34	-	4.67	0.63	2.03	-	1.43
Physical music sales	-	5.48	-	0.87	-	0.23	-	-
Song licensing and copyright management	99.80	20.67	-	2.50	-	0.32	-	1.43
Digital music streaming/ downloading	-	11.56	100	0.88	-	0.48	-	1.43
KTV and karaoke product	-	0.79	-	0.25	-	-	-	75.21
Artist management	-	20.08	-	8.84	-	0.97	-	1.43
Peripheral merchandise	-	1.84	-	0.24	-	0.48	1.25	-
Event venue operation	-	0.94	-	8.72	0.75	66.85	-	-
Event planning	-	4.69	-	34.91	1.13	10.14	21.25	-
Event production/ engineering	-	3.13	-	27.10	91.88	3.22	2.50	-
Ticket sales service	-	1.07	-	0.08	-	0.97	75.00	-
Other fields of cultural content	-	2.96	-	4.38	-	4.90	-	-
Other	0.20	3.44	-	6.58	5.63	9.41	-	19.07
Total	100	100	100	100	100	100	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** Organized by this survey.

As for the performance venue industry, the difference in positioning and the nature of business between live houses and non-live houses led to the difference in revenue structures. The main sources of revenue for live houses were event venue operations (54.87% of the industry's revenue in 2020), event planning (13.20% in 2020), and event production/engineering (13.30%). Most non-live house venues positioned themselves for venue rentals only, with their primary source of revenue coming from event venue operations (69.73%). However, due to the pandemic, these non-live houses have had to expand their revenue streams.

Table 2-3. Revenue structure of performance space from 2019 to 2020 by type of venue

Unit: %

Revenue type	Live House		Non-Live House	
	2019 (N=80)	2020 (N=8)	2019 (N=22)	2020 (N=22)
Music production	5.00	8.30	-	0.52
Physical music sales	-	0.83	-	0.08
Song licensing and copyright management	-	1.67	-	-
Digital music streaming/ downloading	-	2.50	-	-
KTV and karaoke product	-	-	-	-
Artist management	3.13	0.83	-	1.00
Peripheral merchandise	0.75	0.83	0.91	0.40
Event venue operation	47.50	54.87	84.45	69.73
Event planning	24.00	13.20	6.36	9.40
Event production/ engineering	12.88	13.30	1.14	0.80
Ticket sales service	4.38	-	0.68	1.20
Other fields of cultural content	1.13	0.33	1.55	6.00
Other	1.25	3.33	4.91	10.87
Total	100	100	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** The 2019 Popular Music Industry Survey Report and this survey.

1.2.2. Production cost and volume of distribution in Taiwan's popular music industry

From 2017 to 2020, the average production cost of a single song increased each year, rising to NT$199,600 in 2020.

Table 2-4. Average production cost per song from 2016 to 2020

Unit: NT$10,000

	2016 (N=72)	2017 (N=67)	2018 (N=54)	2019 (N=62)	2020 (N=58)
Average production cost	19.8	16.6	17.67	19.55	19.96

■ ***Source:*** The 2019 Popular Music Industry Survey Report and this survey.

In terms of popular music distribution, the ISRC data was used as the basis for the statistical analysis, and the results showed that in 2020 a total of 2,091 albums/singles were released by domestic singers/bands, totaling 8,201 songs.

Table 2-5. Overview of Taiwan's music distribution market in 2020

	Number of copies released	Number of tracks released
Domestic singers/bands	2,091 albums/singles	8,201 tracks

■ ***Source:*** Organized from the ISRC (International Standard Recording Code) query system.

1.3. Trends in IP licensing in Taiwan's popular music industry

In terms of the percentages of domestic and overseas music licensing revenue, music production/distribution/artist management businesses primarily received their music licensing revenue from domestic sources.

Table 2-6. Ratio of domestic and overseas music licensing revenue of music production/distribution/management companies from 2016 to 2020

Unit: %

Item	2016 (N=54)	2017 (N=62)	2018 (N=55)	2019 (N=39)	2020 (N=38)
Domestic	50.80	58.10	60.80	67.87	73.68
Foreign	49.20	41.90	39.20	32.13	26.32
Total	100	100	100	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** The 2019 Popular Music Industry Survey Report and this survey.

Table 2-7. Ratio of domestic and overseas music licensing revenue of songwriting management companies from 2019 to 2020

Unit: %

Item	2019 (N=6)	2020 (N=5)
Domestic	53.92	51.74
Domestic	46.08	48.26
Total	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** The 2019 Popular Music Industry Survey Report and this survey.

In terms of the types of licensed users, digital music streaming/downloading platforms were the main licensed users of music production/distribution/management companies from 2019 to 2020.

Table 2-8. Licensed users of music production/distribution/management from 2019 to 2020 – by licensing revenue

Unit: %

Licensed user type	2019 (N=42)	2020 (N=37)
(1) Digital music streaming/ downloading platform	69.31	66.88
(2) Record company	5.36	6.63
(3) Karaoke product	3.80	4.06
(4) Event and performance	12.44	11.94
(5) Radio and television	6.06	7.11
(6) Other	3.03	3.38
Total	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** The 2019 Popular Music Industry Survey Report and this survey.

Table 2-9. Licensed users of songwriting management from 2019 to 2020 – by licensing revenue

Unit: %

Licensed user type	2019 (N=6)	2020 (N=4)
(1) Digital music streaming/ downloading platform	47.80	68.75
(2) Record company	19.50	19.33
(3) Karaoke product	9.20	6.50
(4) Event and performance	5.67	5.43
(5) Radio and television	12.83	0.00
(6) Other	5.00	0.00
Total	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** The 2019 Popular Music Industry Survey Report and this survey.

According to the revenue of domestic copyright collective management organizations from 2018 to 2020, compensation for usage of music has decreased slightly year over year. This was particularly evident in 2020, when the compensation ratio for public releases, public transmissions, and public broadcasts changed as a result of th pandemic. For example, the Association of Recording Copyright Owners of Taiwan's (ARCO) ratio of public broadcasts decreased from 62.00% in 2018 to 57.00% in 2020. In response to the explosive growth of podcasts globally over the last few years, domestic copyright collective management organizations have begun to propose a common reimbursement rate for music used in podcasts. Some music streaming platforms (such as Spotify and KKBOX) have already included appropriate features that allow live streamers to use stock content from the platform's library without violating copyright. However, the compensation rate for music used in podcasts remains to be determined.

Table 2-10. Total compensation for music usage received by copyright collective management organizations from 2018 to 2020

Unit: NTD, %

Name	Year	Total compensation (NTD)	Public release	Public trans-mission	Public broadcast	Public perfor-mance
Music Copyright Society of Chinese Taipei (MÜST)	2018	614,053,520	-	48.00	11.00	41.00
	2019	551,035,069	-	40.00	12.00	48.00
	2020	469,693,586	-	45.00	14.00	41.00
Association of Recording Copyright Owners of Taiwan (ARCO)	2018	104,058,719	5.00	2.00	62.00	31.00
	2019	105,206,744	5.00	3.00	59.00	33.00
	2020	100,283,616	8.00	3.00	57.00	32.00
Recording Copyright and Publications Administrative Society of Chinese Taipei (RPAT)	2018	14,143,408	-	-	98.69	1.31
	2019	14,013,122	-	-	99.18	0.82
	2020	13,466,504	-	-	99.09	0.91

■ ***Notes:***
1.The Asia-Pacific Music Collective Management Association (ACMA) did not disclose its compensation data.
2.The management fee for the Music Copyright Society of Chinese Taipei (MÜST) was 12%. The management fee for the Association of Recording Copyright Owners of Taiwan (ARCO) was 25%. The management fee for the Recording Copyright and Publications Administrative Society of Chinese Taipei (RPAT) was 30%.
■ ***Source:*** The Music Copyright Society of Chinese Taipei (MÜST, the Association of Recording Copyright Owners of Taiwan (ARCO), and the Recording Copyright and Publications Administrative Society of Chinese Taipei (RPAT).

1.4. Industry observation indexes

1.4.1. Spotify's music charts

Spotify's 2020 "Top 200 (Taiwan)" weekly charts showed that 62.04% of the streamed songs were Mandarin songs, while 27.52% were European or American.

Table 2-11. Overview of Spotify's "Top 200 (Taiwan)" weekly charts from 2019 to 2020

	Japan		Korea		Europe and the US		Mandarin		Total	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Number of appearances on the chart (song)	88	132	590	939	4,364	3,147	5,558	6,382	10,600	10,600
Percentage of appearances on the chart (%)	0.83	1.25	5.57	8.86	41.17	29.69	52.43	60.21	100	100
Total streaming traffic	4,436,913	9,984,865	40,223,425	86,145,982	309,443,197	253,215,094	364,763,854	570,837,117	718,867,389	920,183,058
Percentage of streaming traffic (%)	0.62	1.09	5.60	9.36	43.05	27.52	50.74	62.04	100	100
Number of tracks on the chart	10	12	98	150	546	351	444	457	1,098	970
Percentage of tracks on the chart (%)	0.91	1.24	8.93	15.46	49.73	36.19	40.44	47.11	100	100
Number of singers/ bands on the chart	6	6	45	68	210	137	160	169	421	380
Percentage of singers/ bands on the chart (%)	1.43	1.58	10.69	17.89	49.88	36.05	38.00	44.47	100	100
Average number of appearances on the chart per singer/ band	14.67	22.00	13.11	13.81	20.78	22.97	34.74	37.76	25.18	27.89
Average number of appearances on the chart per track	8.80	11.00	6.02	6.26	7.99	8.97	12.52	13.96	9.65	10.93
Average streaming traffic per track	443,691.30	832,072.08	410,443.11	574,306.55	566,745.78	721,410.52	821,540.21	1,249,096.54	654,706.18	948,642.33

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
Time period of the data: 2018/12/27 - 2020/01/01 and 2019/12/27 - 2021/01/06, totaling 53+53 weeks.
■ ***Source:*** Spotify's "Top 200 (Taiwan)" weekly charts from 2019 to 2020

1.4.2. KKBOX's singles charts

The analysis of the 2020 KKBOX "Weekly TOP 50 Mandarin Singles Charts" and "Weekly TOP 50 Taiwanese Singles Charts" revealed that the release years of songs on the Weekly Taiwanese Singles Chart were moderately dispersed. This was because Taiwanese songs were issued in fewer numbers and had a longer active cycle than Mandarin songs.

Table 2-12. Overview of song release years for the KKBOX "Weekly Top 50 Mandarin Singles Charts" and "Weekly Top 50 Taiwanese Singles Charts" from 2019 to 2020

Unit: %

Song release year	Ratio of the number of appearances on the Mandarin chart		Ratio of the number of appearances on the Taiwanese chart	
	2019	2020	2019	2020
1996~1999	-	0.57	10.19	12.49
2000~2005	-	-	22.34	21.74
2006~2010	-	1.77	15.66	12.11
2011~2015	4.30	2.60	9.25	9.81
2016~2018	49.96	18.94	29.17	19.06
2019	45.74	36.87	13.40	12.68
2020	-	39.25	-	12.11
Total	100	100	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data. Time period of the data: 2019/12/27-2020/12/31, 53 weeks in total.

■ ***Source:*** The KKBOX "Weekly Top 50 Mandarin Singles Charts" and "Weekly Top 50 Taiwanese Singles Charts"from 2019 to 2020.

1.4.3. KKBOX's album chart

The analysis of the 2020 KKBOX "Weekly TOP 50 Mandarin Album Charts" and "Weekly TOP 50 Taiwanese Album Charts" revealed that most Mandarin albums on the chart were released after 2016, accounting for 76.19% of the total. The release years of Taiwanese albums were similar to those of Taiwanese singles in the sense that they were moderately dispersed. Furthermore, Taiwanese albums released after 2016 accounted for 49.47% of the albums on the charts.

Table 2-13. Overview of album release years for the KKBOX "Weekly Top 50 Mandarin Album Charts" and "Weekly Top 50 Taiwanese Album Charts" from 2019 to 2020

Unit: %

Song release year	Ratio of the number of appearances on the Mandarin chart		Ratio of the number of appearances on the Taiwanese chart	
	2019	2020	2019	2020
1970~1999	0.04	0.57	11.36	11.74
2000~2005	3.92	6.34	19.66	19.85
2006~2010	7.25	6.60	16.75	13.09
2011~2015	15.47	10.30	9.66	5.85
2016~2018	37.62	22.57	27.74	19.81
2019	35.70	26.94	14.83	14.94
2020	-	26.68	-	14.72
Total	100	100	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data. Time period of the data: 2019/12/27-2020/12/31, 53 weeks in total.

■ ***Source:*** The KKBOX "Weekly Top 50 Mandarin Album Charts" and "Weekly Top 50 Taiwanese Album Charts"from 2019 to 2020.

1.4.4. Regional distribution of popular music events in Taiwan

The Cultural Activities Information System of the Ministry of Culture – popular music events (performances and festivals) and the information of major music venues inventoried by this survey showed that 4,841 popular music events took place in 2020, a 15.41% decline compared to 2019.

Table 2-14. Regions of popular music events in Taiwan from 2019 to 2020 by percentage of distribution

Unit: %

	General music event		Non-specialized music event		Music festival		Street music event		Holiday music event		Total	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Northern	37.91	33.94	46.73	40.38	43.95	38.26	82.96	52.13	41.73	32.52	49.12	36.96
Central	8.82	12.45	30.60	33.08	23.79	21.74	-	14.10	20.86	40.24	10.59	16.50
Southern	44.51	36.87	19.05	21.54	23.39	35.65	17.04	28.69	33.09	18.29	34.18	33.22
Eastern	8.17	16.39	2.64	3.46	4.44	2.61	-	5.08	3.60	5.69	5.43	12.70
Outlying islands	0.59	0.36	0.97	1.54	4.44	1.74	-	-	0.72	3.25	0.68	0.62
Total	100	100	100	100	100	100	100	100	100	100	100	100

■ ***Notes:***
1.General music event: Music-themed performance events; non-specialized music events: final presentations, non-music-themed performance events; music festivals: music-themed festival performance events; street music events: music performance on the streets; holiday music events: music performance events in the name of holidays.
2.The information in the Cultural Activities Information System has already excluded non-popular-music events; the content of the events is declared by the businesses themselves.
3.Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** The Cultural Activities Information System of the Ministry of Culture – popular music events (performances and festivals) from 2019 to 2020, the information of major music venues compiled by this survey.

Table 2-15. Regions of popular music events in Taiwan from 2019 to 2020 by number of events

Unit: number of events

	General music event		Non-specialized music event		Music festival		Street music event		Holiday music event		Total	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Northern	1,281	1,137	336	210	109	44	1,027	318	58	80	2,811	1,789
Central	298	417	220	172	59	25	-	86	29	99	606	799
Southern	1,504	1,235	137	112	58	41	211	175	46	45	1,956	1,608
Eastern	276	549	19	18	11	3	-	31	5	14	311	615
Outlying islands	20	12	7	8	11	2	-	-	1	8	39	30
Total	3,379	3,350	719	520	248	115	1,238	610	139	246	5,723	4,841

■ ***Notes:***
1.General music events: Music-themed performance events; non-specialized music events: final presentations, non-music-themed performance events; music festivals: music-themed festival performance events; street music events: music performance on the streets; holiday music events: music performance events in the name of holidays.
2.The information in the Cultural Activities Information System has already excluded non-popular-music events; the content of the events is declared by the businesses themselves.
3.Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** The Cultural Activities Information System of the Ministry of Culture – popular music events (performances and festivals) from 2019 to 2020, the information of major music venues compiled by this survey.

1.4.5. Overview of popular music venue ticket sales in Taiwan

In terms of ticketed events, large performance spaces and live houses were mostly used for commercial purposes in 2020, with approximately 90% of their events being ticketed. Except for hybrid performance spaces and formal performance spaces attached to structures/venues, which saw an increase in the number of events held, the remaining spaces saw a reduction

Table 2-16. Percentage and number of free and ticked events from 2019 to 2020 by venue type

Unit: Number of events, %

	Year		Ticketed	Free	Other	Total
Large performance space	2019	Number of events	86	3	6	95
		Ratio (%)	90.53	3.16	6.32	100
	2020	Number of events	43	6	1	50
		Ratio (%)	86.00	12.00	2.00	100
Medium-large performance space	2019	Number of events	54	2	1	57
		Ratio (%)	94.74	3.51	1.75	100
	2020	Number of events	19	15	1	35
		Ratio (%)	54.29	42.86	2.86	100
Medium performance space	2019	Number of events	7	8	2	17
		Ratio (%)	41.18	47.06	11.76	100
	2020	Number of events	6	3	3	12
		Ratio (%)	50.00	25.00	25.00	100
Small performance space	2019	Number of events	64	34	1	99
		Ratio (%)	64.65	34.34	1.01	100
	2020	Number of events	16	11	1	28
		Ratio (%)	57.14	39.29	3.57	100
Live House	2019	Number of events	991	36	25	1,052
		Ratio (%)	94.20	3.42	2.38	100
	2020	Number of events	742	21	11	774
		Ratio (%)	95.87	2.71	1.42	100
Multipurpose performance space	2019	Number of events	775	113	382	1,270
		Ratio (%)	61.02	8.90	30.08	100
	2020	Number of events	778	278	326	1,382
		Ratio (%)	56.30	20.12	23.59	100
Formal performance spaces attached to structures/venues	2019	Number of events	44	235	14	293
		Ratio (%)	15.02	80.20	4.78	100
	2020	Number of events	69	368	20	457
		Ratio (%)	15.10	80.53	4.38	100

	Year		Ticketed	Free	Other	Total
Outdoor venue	2019	Number of events	21	2,061	28	2,110
		Ratio (%)	1.00	97.68	1.33	100
	2020	Number of events	145	1,551	8	1,704
		Ratio (%)	8.51	91.02	0.47	100
Other	2019	Number of events	183	532	15	730
		Ratio (%)	25.07	72.88	2.05	100
	2020	Number of events	38	359	2	399
		Ratio (%)	9.52	89.97	0.50	100
Total	2019	Number of events	2,225	3,024	474	5,723
		Ratio (%)	38.88	52.84	8.28	100
	2020	Number of events	1,856	2,612	373	4,841
		Ratio (%)	38.34	53.96	7.71	100

■ ***Notes:***
1.Large performance venues accommodate 10,000 people or more (such as Taipei Arena, etc.); medium-large performance venues accommodate 3,000 to 10,000 people (such as the Taipei International Convention Center, etc.); medium performance venues accommodate 1,000 to 3,000 people (such as the National Sun Yat-sen Memorial Hall, etc.); small performance venues accommodate 1,000 people or less (such as ATT SHOW BOX, etc.); multipurpose performance spaces are hybrid business space, such as bookstore plus exhibition hall, café plus exhibition hall, and restaurant plus exhibition hall, etc. (such as Mountain Music Station Pub, Paramount Bar, etc.); formal performance spaces attached to structures/venues are lecture or performance halls attached to non-music facilities such as art galleries, museums, government facilities (such as the Puli Art Center Performance Hall, Hshinchu City Cultural Affairs Bureau Performance Hall, etc.)
2.The “other” event may include charity concerts, non-ticketed music events by other commercial businesses, or events that require minimum purchases of food and beverages.
3.The information in the Cultural Activities Information System has already excluded non-popular-music events; the content of the events is declared by the businesses themselves.
4.Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** The Cultural Activities Information System of the Ministry of Culture - popular music events (performances and festivals) from 2019 to 2020, the information of major music venues compiled by this survey.

1.4.6. Number of performances by domestic and foreign singers/bands

In 2020, domestic and foreign singers/bands mostly performed in outdoor venues, live houses, and hybrid performance spaces. The number of performances by non-Mandarin singers/bands[1] went down, which caused the ratio of performances to fluctuate.

Table 2-17. Distribution of performances by domestic and foreign singers/bands from 2019 to 2020

Unit: %

Type	Mandarin		Japan		Korea		Southeast Asia		Europe and the US		Multinational		Total	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Total number of perfo-rmances	5,131	4,635	113	14	54	1	17	2	106	23	302	166	5,723	4,841
Large perfor-mance space	1.58	0.95	5.31	14.29	5.56	-	-	-	1.89	-	0.99	2.41	1.66	1.03
Medium-large perfor-mance space	0.39	0.67	7.96	-	44.44	-	-	-	2.83	-	0.33	2.41	1.00	0.72
Medium performance space	0.21	0.24	2.65	-	-	-	-	-	-	-	0.99	0.60	0.30	0.25
Small perfor-mance space	1.29	0.47	14.16	7.14	22.22	100	-	50	0.94	-	1.32	1.81	1.73	0.58
Live House	15.94	15.04	46.90	28.57	24.07	-	29.41	-	50.94	39.13	36.09	38.55	18.38	15.99
Multi-purpose performance space	22.59	28.48	16.81	28.57	-	-	11.76	-	24.53	39.13	21.19	29.52	22.19	28.55
Formal performance space attached to structures/ venues	5.20	9.75	2.65	-	3.70	-	23.53	-	9.43	-	2.32	3.01	5.12	9.44
Outdoor venue	39.02	35.84	3.54	21.43	-	-	29.41	50	2.83	21.74	31.79	20.48	36.87	35.20
Other	13.78	8.57	-	-	-	-	5.88	-	6.60	-	4.97	1.20	12.76	8.24
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100

■ ***Notes:***
1.Refer to ‘note 1’ of Table 2-15.
2.The information in the Cultural Activities Information System has already excluded non-popular-music events; the content of the events is declared by the businesses themselves.
3.Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** The Cultural Activities Information System of the Ministry of Culture - popular music events (performances and festivals) from 2019 to 2020, the information of major music venues compiled by this survey.

[1] This includes performances by foreigners residing in Taiwan as well as foreigners who come to Taiwan to perform.

1.4.7. Overview of income and expenditure of popular music performance events in Taiwan

In terms of event production, the cost of performances for Mandarin singers and bands in venues with a capacity of less than 1,000 people was lower in 2020 than it was the previous year. However, production costs for other event scales were higher than they were last year during the same time period. Moreover, based on the ratio of event expenditures, the majority of the cost for both Mandarin and non-Mandarin singers/bands came from event production costs and payment to singers/bands.

Table 2-18. Production cost for performance events from 2019 to 2020

Unit: NT$10,000

Scale of the event	Mandarin singers/bands		Non-Mandarin singers/bands	
	2019 (N=14)	2020 (N=22)	2019 (N=14)	2020 (N=4)
(1) 1,000 people or less	41.71	33.91	83.55	72.80
(2) 1,001 to 3,000 people	138.00	275.50	475.00	-
(3) 3,001 to 5,000 people	494.00	986.21	650.00	-
(4) 5,001 to 10,000 people	1,140.26	2,026.81	1,100.00	-
(5) 10,001people or more	1,953.33	3,044.50	-	-
(6) Outdoor venue for music festivals	122.50	-	-	-

■ ***Source:*** The 2019 Popular Music Industry Survey Report and this survey.

Table 2-19. Overview of expenditure ratios for Taiwan's performance events in 2020

Unit: %

Scale of the event	Mandarin singers/bands	Non-Mandarin singers/bands
(1) Event production cost	26.74	21.02
(2) Event software and hardware engineering fee	21.99	6.29
(3) Event venue commission	7.63	12.35
(4) Event music licensing fee	3.02	4.26
(5) Event singer/band fee	26.07	33.95
(6) Event ticketing system commission	5.17	4.89
(7) Event reception/temporary staff fee	4.12	5.18
(8) Event tax	3.90	9.64
(9) Other expenses	1.37	2.43
Total	100	100

■ ***Notes:***
1.N=26.
2.The ratios of each item for Mandarin and non-Mandarin singers/bands are affected by the total amount of expenditure. When interpreting the data, make sure to compare each item with the type of singers/bands.
3.Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** The 2019 Popular Music Industry Survey Report and this survey.

In terms of ticket prices, the disparity between Mandarin and non-Mandarin singers/bands was less pronounced than it was last year at the same period. This was due to the pandemic's effect on the ability of most non-Mandarin artists to visit Taiwan, as well as the scale and format of their performance events.

Table 2-20. Overview of ticket sales of Taiwan's popular music performances from 2019 to 2020

Unit: NTD

Ticket price	Mandarin singers/bands		Non-Mandarin singers/bands	
	2019 (N=17)	2020 (N=17)	2019 (N=17)	2020 (N=17)
(1) Lowest price	515	562	964	860
(2) Average price	1,320	1,144	2,256	1,188
(3) Highest price	2,486	1,807	3,914	1,900

■ ***Source:*** This survey.

1.4.8. Overview of popular music performance venues in Taiwan

Resulting from the difference in performance space between live houses and non-live house venues, live houses hosted 82.14% of all popular music events in 2020. This was prompted by the pandemic-related cancelation of events in non-live house venues, resulting in a shift in ratios for popular music events. In 2020, the number of self-hosted popular music events was higher in live houses (45.00%) than in non-live house venues (31.85%). Due to the cancelations of events hosted by others, the number of self-hosted events also rose compared to last year.

Table 2-21. Overview of the ratio of popular music events to the toal number of events from 2019 to 2020

Unit: %

Year	Live House	Non-Live House
2019	74.20 (N=10)	12.96 (N=19)
2020	82.14 (N=6)	42.27 (N=22)

■ ***Source:*** This survey.

Table 2-22. Overview of the ratio of self-hosted events by event venue operators from 2019 to 2020

Unit: %

Item	Live House		Non-Live House	
	2019 (N=7)	2020 (N=6)	2019 (N=19)	2020 (N=30)
Self-hosted	41.57	45.00	17.37	31.85
Venue rental only	58.43	55.00	82.63	68.15
Total	100	100	100	100

■ ***Source:*** This survey.

2 Radio Industry

2.1. Industry overview

2.1.1. Number of companies in Taiwan's radio industry

Due to regulatory requirements on capital [2], radio stations are divided into five categories, namely: trans-regional and high-power radio stations, medium-power radio stations, low-power radio stations, public radio stations, and AM radio stations.

According to data released by the NCC, 14 stations began airing in 2020 after acquiring licenses from the 11th stage of broadcasting radio station license issuance. This increased the total number of operators in Taiwan with a radio broadcasting license to 185 by the end of 2020. Among these stations, ten were public radio stations (including one international radio station [3]), including eight existing stations, Hakka Radio (managed by the Hakka Public Communication Foundation) and Alian 96.3 (run by the Indigenous Peoples Cultural Foundation), which began broadcasting in 2017. As for private stations, 17 were AM radio stations, four were transregional and high-power stations, 69 were medium-power stations, and 85 were low-power stations.

Table 2-23. Classification of radio stations in 2020

Unit: Number of stations, %

Category	Number of stations	Percentage
Public radio station	10	5.41
AM radio station	17	9.19
Trans-regional and high-power radio station	4	2.16
Medium-power radio station	69	37.30
Low-power radio station	85	45.95
Total	185	100

■ ***Source:*** This survey.

As Taiwan's radio industry develops, low and medium-power radio stations utilized strategic alliance broadcast network strategies to expand listenership and reduce program production costs in order to overcome broadcast range limits. According to the radio station program schedule [4] of the NCC and the official website of broadcast networks, there were 13 official and 2 unofficial broadcast networks in 2020.

[2] The minimum paid-in capital or amount of assets donated to a radio company must reach NT$200 million for nationwide radio broadcasting and NT$30 million for regional radio broadcasting. If the purpose of applying to establish a radio station is to serve a specific group or remote area or to drive regional development, after providing a reasonable explanation, the minimum paid-in capital or amount of assets donated to the radio station will not be limited by Subparagraph 2 of the preceding paragraph. If the organization is a company limited by shares, the radio station must comply with the Company Act and related regulations. If the organization is an institution, the amount of assets donated may not be lower than NT$10 million.
[3] Radio Taiwan International is a shortwave radio station. It is the only public media that provides international radio broadcasting services in the country. Shortwave radio is a range of wavelengths for radio transmission that corresponds to high frequencies. Hence, shortwave radio is radio transmission using shortwave radio frequencies. Shortwave bands are usually used for international radio because they have a better ability to penetrate and are less likely to be interfered with.
[4] Website http://nccstat2.ncc.gov.tw/ncc/stnccpr.jsp?sys=10&funid=prsel

2.1.2.Average capital scale of Taiwan's radio industry

According to business registration data of the Ministry of Economic Affairs, the capital of radio stations in 2020 was primarily concentrated in the NT$10 million to NT$50 million (exclusive) range, accounting for 38.98% of all radio stations. This was followed by the NT$50 million to NT$100 million (exclusive) range, accounting for 25.99%. A total of 14 stations had a capital of less than NT$5 million, while the station with the lowest capital should not have a capital of less than NT$3 million, according to Article 6 Chapter 1 of the Regulations for the Establishment of Radio Broadcasting Enterprises. Two stations each had a capital of more than NT$1 billion, namely Radio Taiwan International and the Broadcasting Corporation of China, with capitals of NT$4.749 billion and NT$3.224 billion, respectively. Overall, approximately 90% of capital distribution in the radio industry was concentrated in the NT$5 million to NT$100 million (exclusive) range.

Table 2-24. Capital structure of the radio industry in 2020

Unit: Number of stations, %

Industry	Number of stations	Percentage
<NT$5 million	14	7.91
NT$5 million to NT$10 million (exclusive)	42	23.73
NT$10 million to NT$50 million (exclusive)	69	38.98
NT$50 million to NT$100 million (exclusive)	46	25.99
NT$100 million to NT$500 million (exclusive)	4	2.26
NT$500 million to NT$1 billion (exclusive)	-	-
>NT$1 billion	2	1.13
Total	177	100

■ ***Notes:*** There is no information on the capital of the Ministry of the Interior National Police Agency Police Broadcasting Service, Executive Yuan Council of Agriculture Fisheries Agency Fishery Radio Station, Taipei Broadcasting Station, Fuhsing Broadcasting Station, Kaohsiung Broadcasting Station, National Education Radio, Ministry of National Defense Psychological Warfare Battalion (Voice of Han Broadcasting Network), and Hakka Affairs Council (Hakka Radio). Hence, the table above only contains data from 177 radio stations.

■ ***Source:*** Summarized from business registration data of the Ministry of Economic Affairs.

2.1.3. Number of employees in Taiwan's radio industry

According to statistics on the number of employees and supervisors in the radio industry provided by the NCC, the total number of people employed in Taiwan's radio stations was 7,204 in 2020. After the 11th stage of broadcasting radio station license issuance, several stations began operations in 2020, resulting in a 4.89% increase in the number of employees compared to 2019, with the number of female employees increasing by 208.

In terms of various classes of radio stations, public radio stations had the largest number of employees (more than 2,000), with medium-power broadcasting networks consisting of 1,254. At 562, AM radio stations had the lowest number of employees.

Table 2-25. Number of employees in Taiwan's radio industry from 2015 to 2020

	2015		2016		2017		2018		2019		2020	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Trans-regional and high-power	444	370	444	370	326	284	328	282	330	272	328	262
Lower-power (none)	418	384	402	414	406	402	418	402	406	398	482	448
Lower-power (network)	482	402	504	400	462	352	482	368	484	342	500	380
Medium-power (none)	486	396	514	396	480	392	490	360	498	366	522	354
Medium-power (network)	862	532	822	548	790	538	730	476	710	450	758	496
Public	624	1,040	632	1,004	830	1,108	916	1,120	926	1,108	970	1,142
AM	334	308	312	306	302	288	306	282	286	292	288	274
Total	3,650	3,432	3,630	3,438	3,596	3,364	3,670	3,290	3,640	3,228	3,848	3,356
	7,082		7,068		6,960		6,960		6,868		7,204	

■ ***Source:*** Statistics on the number of employees and supervisors in the radio industry provided by the NCC.

Although the number of employees in the radio industry has increased as a result of the 11th stage of broadcasting radio station license issuance and station openings, our survey interviewees indicated that a talent gap exists for medium and low-power radio stations. This is due to the emergence of new media and new forms of mass entertainment, which have gradually rendered the radio industry obsolete. New forms of employment, such as YouTubers or podcasters, have become sought-after careers for young people. As a result, there is a talent shortage in the radio industry.

2.2. Revenue and business model

2.2.1. Revenue structure of Taiwan's radio industry – revenue items

Over 80% of the radio stations in Taiwan had revenues in the range of NT$ 1 million to NT$ 20 million.

Table 2-26. Taiwan's radio industry by revenue in 2020

Unit: %

Item	Overall	High-power	Low-power (none)	Low-power (network)	Medium-power (none)	Medium-power (network)	AM
<NT$1 million	6.82	-	10.00	-	8.33	15.00	-
≥NT$1 million to <NT$5 million	32.95	-	30.00	60.00	16.67	30.00	-
≥NT$5 million to <NT$10 million	25.00	-	40.00	28.00	25.00	10.00	20.00
≥NT$10 million to <NT$20 million	22.73	-	15.00	12.00	25.00	15.00	80.00
≥NT$20 million to <NT$30 million	1.14	-	-	-	-	5.00	-
≥NT$30 million to <NT$40 million	3.41	-	5.00	-	8.33	5.00	-
≥NT$40 million to <NT$50 million	2.27	-	-	-	8.33	5.00	-
≥NT$50 million to <NT$60 million	2.27	-	-	-	8.33	5.00	-
≥NT$60 million to <NT$70 million	2.27	-	-	-	-	10.00	-
≥NT$300 million to <NT$400 million	1.14	100	-	-	-	-	-
Total	100	100	100	100	100	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** Organized by this survey study.

In terms of various classes of radio stations, medium-power broadcast networks had the highest revenue, with 15% of their operators generating a revenue of more than NT$50 million. Next were AM radio stations, with 80% of their operators generating revenues ranging from NT$10 million to NT$20 million. In addition, the revenue of low-power broadcast networks was higher than that of low-power radio stations that did not join a broadcast network.

In terms of revenue sources, advertisement and broadcast production accounted for the highest proportion (56.16%), followed by time slot leasing (37.88%).

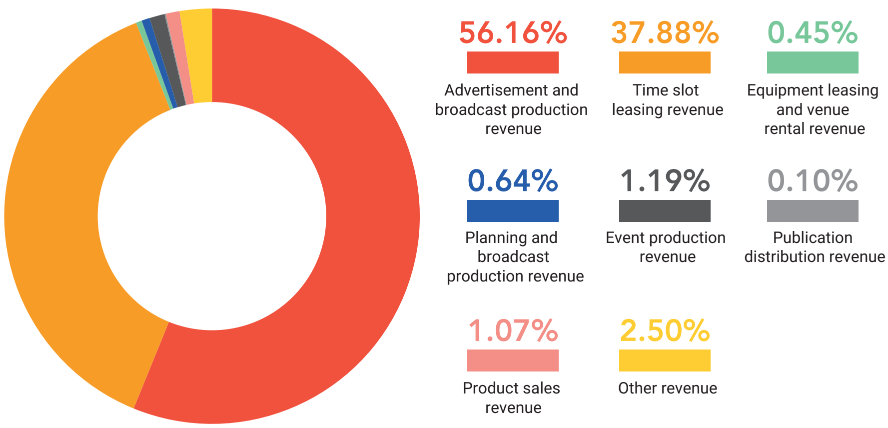


Figure 2-5. Radio industry revenue breakdown by source in 2020

■ ***Source:*** Organized by this survey study.

Broadcast network operators for medium-power and low-power networks relied on “advertisement and broadcast production” as their primary source of revenue, with certain low-power networks employing “time slot leasing” as their secondary source of revenue. Medium-power radio stations that did not join a network generated more than 60% of their revenue from “advertisement and broadcast production.” They were short on resources compared to broadcast networks. They diversified their revenue streams as a result, with “planning and broadcast production,” “event production,” “product sales,” and “other revenue” accounting for 15% of total revenue. AM radio stations derived the majority of their revenue from “time slot leasing,” with “advertisement and broadcast production” accounting for just 31.07% of total revenue. Revenues from “advertisement and broadcast production” and “time slot leasing” were comparable in terms of the percentage of revenue for low-power radio stations that did not join a network.

Table 2-27. Revenue breakdown for different classes of radio staitons in 2020

Unit: %

Category	Advertising and broadcast production revenue	Time slot leasing revenue	Equipment leasing and venue rental revenue	Planning and broadcast production revenue	Event production revenue	Publication distribution revenue	Product sales revenue	Other revenue	Total
Low-power (none)	49.17	45.41	0.38	1.32	0.48	-	2.62	0.62	100
Low-power (network)	50.34	45.74	-	0.18	1.74	-	0.04	1.96	100
Medium-power (none)	64.89	18.88	0.83	1.25	2.41	0.67	2.75	8.32	100
Medium-power (network)	77.68	19.19	0.80	0.35	1.18	-	-	0.79	100
AM	31.07	65.04	0.60	-	-	-	0.01	3.29	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** Organized by this survey study.

2.2.2. Business model

Advertisements and time slot leasing are the radio industry's main revenue sources. However, the market share of radio advertising has declined over the years as new forms of entertainment have been developed, resulting in a 20.1% decline in its annual growth rate. After a large number of radio station licenses were approved, severe competition made it difficult for some radio stations to survive and maintain operations, resulting in the gradual adoption of the time slot leasing business model. However, as the cost of time slots continues to decline, an increasing number of radio stations are joining broadcast networks.

At present, nearly half of the medium and low-power radio stations have joined broadcast networks. As shown in the aforementioned data, 59.42% and 48.24% of medium-power and low-power radio stations are part of a broadcast network, respectively. This is a sign that the radio station industry in Taiwan is going to move toward network broadcasting in the future.

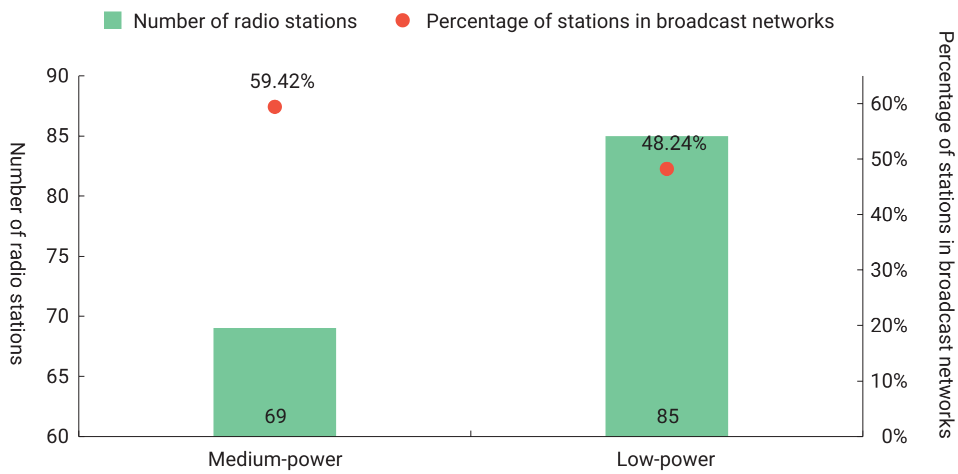


Figure 2-6. Overview of radio stations in broadcast networks

■ ***Source:*** Organized by this survey.

In addition to the two business models described above, radio stations have been actively developing other business models in recent years, including working with product and service providers, such as biotech companies, securities firms, commodities manufacturers, and gift shops. Radio hosts are tasked with promoting related products and increasing sales with their charisma. Furthermore, some radio stations have also developed other business models, such as launching online shopping websites or collaborating with e-commerce platforms (such as the cross-industry collaboration between the Broadcasting Corporation of China and the Good Market) and actively integrating digital developments into their services (such as Asia FM 92.7 providing mobile broadcast studios).

In Taiwan, 63.16% of the radio station operators legally provide online music listening services, with 100% of the trans-regional, high-power, and public radio station operators attaining this. The percentage of medium-power broadcast networks providing legal online music listening services is higher than radio stations that did not join a network. As for low-power operators, the proportion of both broadcast networks and radio stations that did not join a network providing legal online music listening services is about 50%.

Additionally, operators are also utilizing new media platforms in order to diversify their revenue streams. For example, 2020 was the first year of podcasting in Taiwan because in that year, many radio stations transformed their best content into podcasts, including the trans-regional public radio broadcast networks such as CITYFM and Goodnews FM, and radio stations that did not join a network, such as KISS Radio, Pulse FM, and M-Radio. These operators produced podcasts with the hope of propelling the radio industry forward.

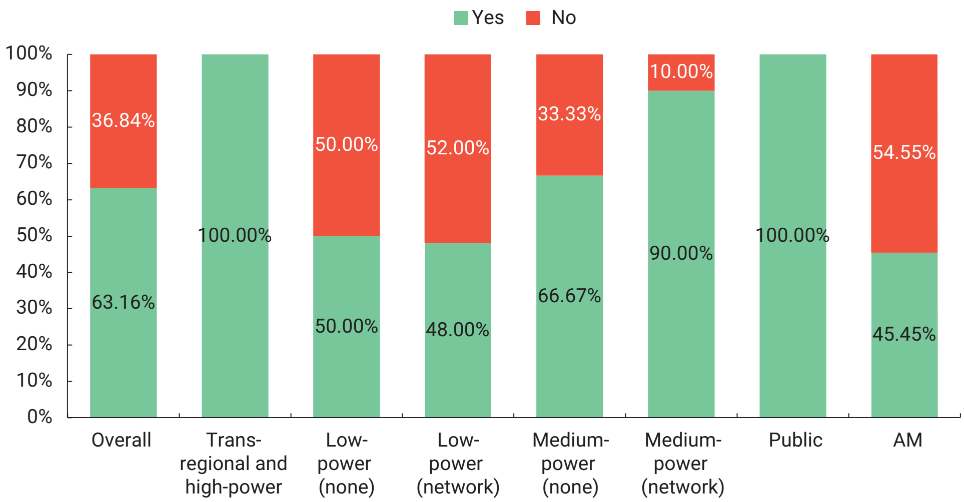


Figure 2-7. Percentage of Taiwan's radio stations providing legal online music listening services in 2020

■ ***Source:*** Organized by this survey study.

In terms of upstream and downstream expansion, digital technology application, and business model innovation, radio stations are primarily focused on digital technology applications (79.07%) such as live streaming, station app development, and audio platforms. Business model innovation (52.78%) plays a more supportive role, such as cross-industry collaborations for radio and new media via integrated marketing, the addition of merchandise shopping sections to official websites, and so on. Only a few operators are engaged in upstream and downstream expansions (2.78%), owing to the extent to which the radio industry's upstream and downstream sectors have already been integrated. In terms of the various classes of radio stations, operators of high-and medium-power stations are fully engaged in digital technology applications.

Table 2-28. Percentage of radio stations engaging in cross-sector operations from 2019 to 2020

Unit: %

		Upstream and downstream expansion	Digital technology application	Business model innovation
Overall	2019	16.28	79.07	34.88
	2020	2.78	91.67	52.78
Trans-regional and high-power	2019	-	100	100
	2020	-	100	100
Low-power (none)	2019	-	87.50	37.50
	2020	-	50.00	50.00
Low-power (network)	2019	11.11	77.78	33.33
	2020	-	85.71	71.43
Medium-power (none)	2019	62.50	62.50	37.50
	2020	-	100	33.33
Medium-power (network)	2019	7.14	78.57	35.71
	2020	-	100	75.00
Public	2019	-	100	-
	2020	-	50.00	-
AM	2019	-	100	-
	2020	20.00	80.00	20.00

■ ***Notes:*** Multiple responses were allowed for this question. The calculation was based on the number of times an option was selected/the number of valid survey responses from the particular class of operator.
■ ***Source:*** Organized by this survey study.

A closer inspection reveals that radio station operators place the most emphasis on content production (accounting for 76.47%), including the production of interview videos, new content development, and remote program production. For example, M Radio's myth-busting animated content launched on LINE TODAY is a prime example demonstrating the importance of content. Second to content production, the next point of focus for radio station operators is marketing strategies, which 61.76% of the operators emphasize. Marketing strategies include actively utilizing social media (such as push notifications, podcasts, YouTube, Facebook livestreams, etc.) to increase audience engagement and attract younger listeners.

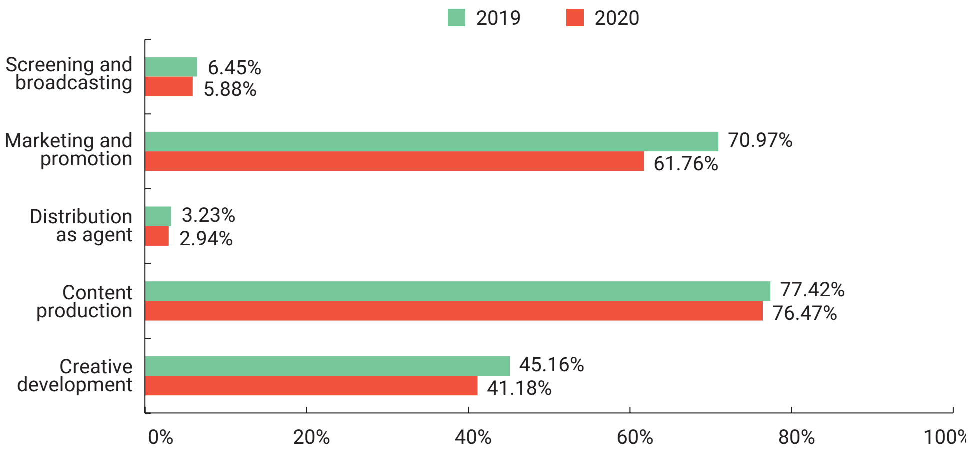


Figure 2-8. Breakdown of innovation and development activities in various sectors of Taiwan's radio industry from 2019 to 2020

■ ***Notes:*** Multiple responses were allowed for this question. The calculation was based on the number of times an option was selected/the number of valid survey responses from the particular class of operator.
■ ***Source:*** Organized by this survey study.

2.3 Industry observation indexes

2.3.1. Broadcast status of Taiwan's radio market

The total broadcast hours for the 185 radio stations in Taiwan was 1,953,158 in 2020. In terms of the types of programs broadcast, entertainment programs accounted for the most hours, followed by public service programs, educational programs, and lastly, news and policy announcements.

Table 2-29. Types of radio programs in Taiwan from 2015 to 2020 by percentage of broadcast hours

Unit: Hours, %

Type	2015	2016	2017	2018	2019	2020
Entertainment	31.72	29.20	33.54	33.39	31.02	31.14
Public service	26.35	26.04	31.60	27.88	27.46	27.53
Education	24.44	28.35	20.20	24.05	25.11	24.85
News and policy announcement	17.49	16.41	14.67	14.68	16.42	16.48
Total broadcast hours	1,913,752	2,161,524	2,441,007	2,411,779	1,872,858	1,953,158

■ ***Source:*** Radio station program hours provided by the NCC.

In terms of different types of radio stations, trans-regional and high-power radio stations provided a wider range of services. For this reason, public service programs were their main type of program, followed by entertainment. The programs of medium-power, low-power, and AM radio stations were mainly entertainment programs, while educational programs accounted for the highest percentage of public radio station programs, at 52.60%.

Table 2-30. Types of programs on different classes of radio stations from 2015 to 2020 by percentage of broadcast hours

Unit: %

Station class	Program type	2015	2016	2017	2018	2019	2020
High-power radio stations	Entertainment	30.99	30.05	28.31	29.36	29.51	29.79
	Public service	29.18	30.93	32.64	34.64	33.67	35.01
	Education	22.55	21.10	21.23	19.89	20.07	19.69
	News and policy announcement	17.28	17.92	17.82	16.10	16.74	15.51
	Total	100	100	100	100	100	100
Medium-power radio stations (broadcast network)	Entertainment	30.99	30.05	28.31	29.36	29.51	33.44
	Public service	29.18	30.93	32.64	34.64	33.67	30.11
	Education	22.55	21.10	21.23	19.89	20.07	20.68
	News and policy announcement	17.28	17.92	17.82	16.10	16.74	15.77
	Total	100	100	100	100	100	100
Medium-power radio stations (non-broadcast network)	Entertainment	33.03	32.37	33.45	33.44	32.32	34.26
	Public service	27.45	28.59	29.11	30.11	30.78	28.21
	Education	24.16	23.17	22.26	22.77	22.32	22.28
	News and policy announcement	15.36	15.86	15.18	13.68	14.58	15.24
	Total	100	100	100	100	100	100
Low-power radio stations (broadcast network)	Entertainment	32.92	32.50	31.08	31.01	31.98	31.13
	Public service	27.27	28.18	29.23	30.34	29.43	29.45
	Education	22.02	22.17	21.91	19.70	19.38	20.11
	News and policy announcement	17.78	17.15	17.78	18.95	19.21	19.31
	Total	100	100	100	100	100	100
Low-power radio stations (non-broadcast network)	Entertainment	33.98	33.57	40.55	37.91	33.45	33.42
	Public service	26.32	26.48	36.22	27.68	26.31	26.29
	Education	20.39	20.49	10.64	20.93	20.75	20.56
	News and policy announcement	19.31	19.46	12.58	13.47	19.48	19.72
	Total	100	100	100	100	100	100
AM radio stations	Entertainment	33.78	33.32	32.13	31.90	32.61	31.32
	Public service	25.98	27.17	34.31	33.24	32.45	33.74
	Education	23.34	23.39	20.75	21.76	21.91	22.55
	News and policy announcement	16.90	16.13	12.82	13.10	13.04	12.39
	Total	100	100	100	100	100	100
Public radio stations	Entertainment	20.41	16.88	19.78	22.47	21.99	22.35
	Public service	19.63	18.63	22.75	10.48	10.58	10.64
	Education	42.59	51.33	43.69	53.84	54.44	52.60
	News and policy announcement	17.37	13.16	13.78	13.21	12.99	14.42
	Total	100	100	100	100	100	100

■ ***Source:*** Radio station program hours provided by the NCC.

In terms of program sources, radio station programs in Taiwan mainly produced their own content (independent production), at over 60%, followed by outsourced production programs. Despite the high percentage of medium and low-power radio stations in broadcast networks, broadcast network programs only accounted for about 10% of the total.

Table 2-31. Sources of Taiwan's radio program production from 2015 to 2020 by percentage of broadcast

Unit: %

	2015	2016	2017	2018	2019	2020
Independent production	64.24	66.18	60.61	62.13	61.84	63.52
Outsourced production	24.11	24.26	31.39	27.18	27.89	26.73
Broadcast	11.65	9.56	8.00	10.69	10.27	9.74
Total	100	100	100	100	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** Radio station program hours provided by the NCC.

In terms of the different classes of radio stations, trans-regional and high-power radio stations have relatively more channels and higher program production costs, so production is outsourced for a relatively high percentage of programs. With regard to medium and low-power radio stations, which are further divided into network or non-network stations, the content of the medium-power broadcast network is mainly independently produced and broadcast in different regions by low-power radio stations. Hence, a high percentage of low-power broadcast network programs are broadcast. The content on non-network medium-power, low-power, and AM radio stations is mainly independently produced and supported by outsourced production.

Table 2-32. Sources of programs on different classes of radio stations from 2015 to 2020 by percentage of broadcast hours

Unit: %

Station class	Program Type	2015	2016	2017	2018	2019	2020
High-power radio stations	Independent production	39.26	44.60	42.67	43.80	44.56	48.93
	Outsourced production	51.05	55.39	57.14	56.07	55.17	51.01
	Broadcast	9.69	-	0.19	0.13	0.27	0.05
	Total	100	100	100	100	100	100
Medium-power radio stations (broadcast network)	Independent production	72.60	72.64	71.66	73.76	73.05	74.30
	Outsourced production	4.34	4.52	13.02	4.82	7.35	5.81
	Broadcast	23.06	22.84	15.33	21.42	19.59	19.89
	Total	100	100	100	100	100	100
Medium-power radio stations (non-broadcast network)	Independent production	79.43	76.31	74.69	72.62	72.29	73.26
	Outsourced production	19.26	22.37	24.45	26.38	26.93	26.27
	Broadcast	1.31	1.32	0.85	1.00	0.78	0.47
	Total	100	100	100	100	100	100
Low-power radio stations (broadcast network)	Independent production	57.62	56.85	55.81	56.27	55.58	56.52
	Outsourced production	7.93	7.99	12.26	8.72	10.19	10.68
	Broadcast	34.45	35.15	31.93	35.01	34.23	32.80
	Total	100	100	100	100	100	100
Low-power radio stations (non-broadcast network)	Independent production	58.84	57.19	53.42	53.88	53.42	56.58
	Outsourced production	40.45	42.61	46.56	46.04	46.50	42.76
	Broadcast	0.71	0.19	0.02	0.08	0.08	0.66
	Total	100	100	100	100	100	100
AM radio stations	Independent production	48.92	46.89	41.81	40.65	41.45	44.36
	Outsourced production	50.53	52.55	57.64	58.79	57.99	55.09
	Broadcast	0.56	0.55	0.56	0.56	0.56	0.55
	Total	100	100	100	100	100	100
Public radio stations	Independent production	91.95	86.49	81.68	89.92	89.38	88.77
	Outsourced production	6.06	11.44	4.62	5.43	5.87	8.49
	Broadcast	1.99	2.08	13.71	4.65	4.74	2.74
	Total	100	100	100	100	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** Radio station program hours provided by the NCC.

In terms of language, the programs of domestic radio stations were mainly in Taiwanese (accounting for 57.50% of all stations) and supported by Mandarin. Following the launch of Hakka and indigenous radio programs, the percentage of broadcast hours for programs in other languages [5] showed an upward trend.

Table 2-33. Percentage of broadcast hours for Taiwanese programs in each language from 2015 to 2020

Unit: %

Language	2015	2016	2017	2018	2019	2020
Mandarin	38.72	43.54	23.08	28.61	35.48	34.99
Taiwanese	53.28	49.24	58.96	65.37	56.62	57.50
Hakka	3.36	3.10	15.41	2.75	3.87	3.75
Indigenous languages	1.24	1.00	0.68	1.21	1.47	1.39
Other dialects	0.05	0.34	0.06	0.08	0.10	0.13
English	1.71	1.49	0.83	1.02	1.48	1.32
Other foreign languages	1.65	1.29	0.98	0.96	0.97	0.92
Total	100	100	100	100	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** Radio station program hours provided by the NCC.

[5] Hakka Radio was launched by the Hakka Affairs Council in 2017. The increase in hours of programming in Hakka that year may be due to the radio station mainly using Hakka when it first began operations. After subsequent adjustments to the language of programs, the number of hours of Hakka programs returned to normal.

Among different classes of radio stations, medium and low-power broadcast networks mainly broadcast Mandarin music programs, resulting in a relatively higher percentage of Mandarin programs in terms of broadcast hours. The rest of the stations, including high-power radio stations, medium and low-power radio stations that did not join a network, and AM radio stations, mainly broadcast Taiwanese programs.

Table 2-34. Program languages in different classes of radio stations from 2015 to 2020 by percentage of broadcast hours

Unit: %

Station class	Program language	2015	2016	2017	2018	2019	2020
High-power radio stations	Mandarin	22.71	20.50	18.81	19.70	19.12	19.06
	Taiwanese	71.02	72.99	75.37	75.56	76.12	76.20
	Hakka	0.46	0.48	0.37	0.14	0.15	0.15
	Indigenous languages	0.15	0.20	0.22	0.02	0.01	0.02
	Other dialects	-	0.02	0.02	0.02	0.02	0.02
	English	4.70	4.87	4.60	4.11	4.12	4.10
	Other foreign languages	0.96	0.95	0.60	0.45	0.46	0.45
	Total	100	100	100	100	100	100
Medium-power radio stations (broadcast network)	Mandarin	52.89	52.26	25.63	51.07	48.33	46.29
	Taiwanese	33.87	32.88	12.71	35.82	37.98	42.09
	Hakka	8.24	8.35	58.61	8.16	8.55	7.96
	Indigenous languages	2.45	2.51	1.04	2.86	2.83	2.77
	Other dialects	-	1.64	-	-	-	-
	English	1.90	1.78	0.93	1.32	1.61	0.70
	Other foreign languages	0.66	0.57	1.08	0.78	0.69	0.20
	Total	100	100	100	100	100	100
Medium-power radio stations (non-broadcast network)	Mandarin	41.69	39.29	38.95	38.71	39.04	39.87
	Taiwanese	55.98	58.65	59.09	59.39	59.38	58.49
	Hakka	0.29	0.39	0.35	0.31	0.35	0.29
	Indigenous languages	0.60	0.27	0.20	0.18	0.20	0.26
	Other dialects	0.33	0.35	0.35	0.35	0.35	0.42
	English	0.93	0.82	0.82	0.81	0.46	0.45
	Other foreign languages	0.19	0.22	0.24	0.24	0.22	0.22
	Total	100	100	100	100	100	100
Low-power radio stations (broadcast network)	Mandarin	49.45	49.72	51.62	46.95	47.48	47.46
	Taiwanese	42.31	41.72	41.74	48.87	45.61	45.78
	Hakka	5.11	5.31	5.18	2.74	5.34	5.29
	Indigenous languages	0.19	0.19	0.20	0.19	0.20	0.20
	Other dialects	-	0.06	0.01	-	-	0.11
	English	2.28	2.28	0.80	0.79	1.06	1.03
	Other foreign languages	0.66	0.71	0.44	0.46	0.31	0.12
	Total	100	100	100	100	100	100

Station class	Program language	2015	2016	2017	2018	2019	2020
Low-power radio stations (non-broadcast network)	Mandarin	12.26	10.70	4.79	5.22	11.36	11.47
	Taiwanese	81.34	83.51	93.85	92.52	83.31	83.29
	Hakka	3.56	3.79	0.85	1.41	3.03	2.94
	Indigenous languages	2.76	1.81	0.47	0.80	2.20	2.15
	Other dialects	-	-	-	-	-	0.03
	English	0.03	0.03	0.01	0.01	-	-
	Other foreign languages	0.04	0.15	0.02	0.03	0.10	0.12
	Total	100	100	100	100	100	100
AM radio stations	Mandarin	16.42	4.61	3.98	4.35	5.33	5.02
	Taiwanese	83.10	94.92	95.63	95.24	94.18	94.54
	Hakka	0.15	0.18	0.14	0.16	0.19	0.17
	Indigenous languages	0.06	-	0.02	0.03	0.09	0.06
	Other dialects	-	-	-	-	-	-
	English	0.10	0.10	0.03	0.03	0.02	0.02
	Other foreign languages	0.16	0.19	0.18	0.19	0.19	0.18
	Total	100	100	100	100	100	100
Public radio stations	Mandarin	76.19	83.04	72.83	73.41	73.39	72.94
	Taiwanese	6.17	8.97	9.31	4.43	5.68	6.22
	Hakka	2.50	1.39	5.11	6.82	6.75	6.55
	Indigenous languages	1.55	1.07	2.40	4.81	4.17	3.38
	Other dialects	0.06	0.20	0.36	0.45	0.42	0.45
	English	2.82	1.40	2.72	3.11	4.22	4.42
	Other foreign languages	10.71	3.94	7.26	6.97	5.36	6.04
	Total	100	100	100	100	100	100

■ ***Notes:*** Percentages may not add up to 100% due to rounding of data.
■ ***Source:*** Radio station program hours provided by the NCC.

2.3.2. Overview of radio station target audience in Taiwan

Taiwanese radio stations' primary target audiences are 50-59 year olds, 40-49 year olds, and 60-64 year olds. Additionally, 14.58% of the radio stations have an unspecified age target demographic.

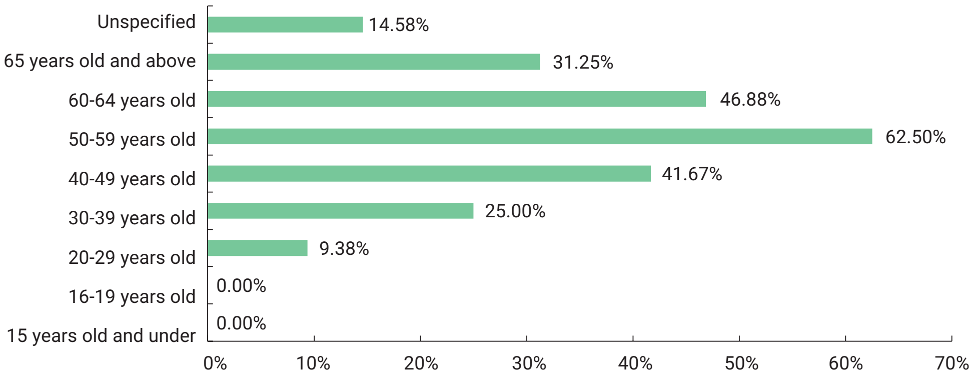


Figure 2-9. Radio station target audience by age group

■ ***Notes:*** Multiple responses were allowed for this question. The calculation was based on the number of times an option was selected/the number of valid survey responses from the particular class of operator.
■ ***Source:*** Organized by this survey study.

When different classes of radio stations are compared in terms of target audience, it is evident that they all target roughly the same age groups. Only medium and low-power broadcast networks, as well as medium-power radio stations that are not part of a broadcast network, target younger audiences.

Table 2-35. Target audience of Taiwan's radio stations by age group (percentage of stations)

Unit: %

	Trans-regional and high-power radio stations	Low-power radio stations (none)	Low-power radio stations (network)	Medium-power radio stations (none)	Medium-power radio stations (network)	Public radio stations	AM radio stations
15 years old and under	-	-	-	-	-	-	-
16-19 years old	-	-	-	-	-	-	-
20-29 years old	-	-	12.00	16.67	20.00	-	-
30-39 years old	-	4.76	32.00	25.00	45.00	50.00	-
40-49 years old	100	19.05	44.00	58.33	65.00	50.00	9.09
50-59 years old	100	57.14	56.00	58.33	60.00	66.67	90.91
60-64 years old	100	52.38	36.00	50.00	30.00	16.67	100
65 years old and above	-	47.62	28.00	8.33	10.00	-	90.91
Unspecified	-	28.57	4.00	25.00	-	50.00	9.09

■ ***Notes:***
1.(None) refers to radio stations that are not part of a broadcast network; (network) means they are part of one.
2.Multiple responses were allowed for this question. The calculation was based on the number of times an option was selected/the number of valid survey responses from the particular class of operator.
■ ***Source:*** Organized by this survey study.

In terms of ethnic group, around half of the radio stations target a Taiwanese-speaking audience, which corresponds to the aforementioned statistics on the language of programs. The rest of the radio stations have an unspecified target audience by ethnic group.

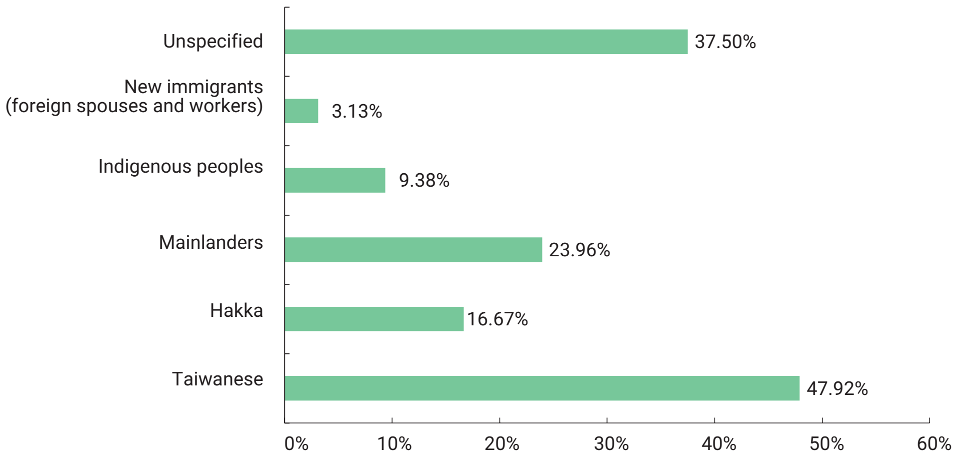


Figure 2-10. Target audience of radio stations by ethnic group

■ ***Notes:*** Multiple responses were allowed for this question. The calculation was based on the number of times an option was selected/the number of valid survey responses from the particular class of operator.
■ ***Source:*** Organized by this survey study.

Most AM radio stations came to Taiwan with the nationalist government, so a portion of the AM radio stations mainly target mainlanders.

Table 2-36. Target audience of Taiwan's radio stations by ethnic group (percentage of stations)

Unit: %

	Taiwanese	Hakka	Main-landers	Indigenous peoples	New immigrants (foreign spouses and workers)	Unspecified
Trans-regional and high-power	100	-	-	-	-	100
Low-power (none)	66.67	14.29	4.76	9.52	4.76	19.05
Low-power (network)	36.00	12.00	32.00	20.00	-	32.00
Medium-power (none)	33.33	16.67	16.67	8.33	-	66.67
Medium-power (network)	30.00	20.00	25.00	-	-	45.00
Public	16.67	16.67	16.67	-	-	83.33
AM	100	27.27	54.55	9.09	18.18	9.09

■ ***Notes:*** Multiple responses were allowed for this question. The calculation was based on the number of times an option was selected/the number of valid survey responses from the particular class of operator.
■ ***Source:*** Summarized from the questionnaire survey.

In terms of occupation-based target audiences, Taiwanese radio stations primarily target men who work as drivers, such as taxi and truck drivers, followed by housewives.

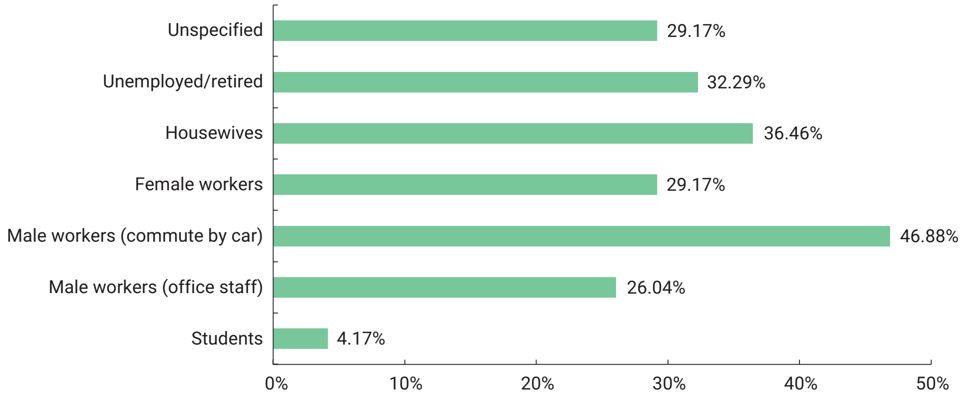


Figure 2-11. Target audience of Taiwan's radio stations by occupation

■ ***Notes:*** Multiple responses were allowed for this question. The calculation was based on the number of times an option was selected/the number of valid survey responses from the particular class of operator.
■ ***Source:*** Organized by this survey study.

A high percentage of listeners of medium-power broadcast networks are male and female office workers, which is consistent with the status of the Taiwanese radio market. For example, certain factories or businesses may use their broadcast systems to play specific broadcast network programs.

Table 2-37. Target audience of Taiwan's radio stations by occupation (percentage of stations)

Category	Students	Male workers (office staff)	Male workers (commute by car)	Female workers	Housewives	Unemployed/retired	Unspecified
Trans-regional and high-power	-	-	100	-	100	100	-
Low-power (none)	-	9.52	28.57	19.05	38.10	28.57	42.86
Low-power (network)	-	36.00	48.00	32.00	24.00	20.00	20.00
Medium-power (none)	8.33	-	66.67	25.00	33.33	33.33	50.00
Medium-power (network)	10.00	60.00	65.00	45.00	30.00	15.00	10.00
Public	16.67	16.67	16.67	-	-	16.67	66.67
AM	-	9.09	36.36	36.36	90.91	100	18.18

■ ***Notes:*** Multiple responses were allowed for this question. The calculation was based on the number of times an option was selected/the number of valid survey responses from the particular class of operator.
■ ***Source:*** Organized by this survey study.

III FORECAST

1 Comprehensive Analysis of the Music Industry

1.1. Creation and composition

According to industry observations, combining music with films or television series may boost a song's streaming traffic on streaming platforms. This raises the commercial value of songs, hence prolonging their active period. While COVID has had a global impact on several industries since 2020, resulting in decreased business volume and the demand to work from home, the creative aspect of the music industry is less restricted because music can be composed in a variety of settings. As a result, the music industry's creative output remained stable.

1.2. Production

As the social context changes, the music industry's business model has remained focused on maximizing the value of singers/bands in recent years. Along with music production and distribution, revenue earned by other aspects of artist management has become a significant source of revenue and a tool for businesses to quantify the value of these musicians. Furthermore, the growth of self-service platforms and businesses has transformed record companies into resource integration platforms, offering singers and bands a variety of services such as professional music production, distribution, marketing, legal, and accounting. Certain singers/bands want to focus only on the creation of music, and hence outsource distribution, marketing, and legal services to specialists. This allows them to retain their creative energy.

1.3. Performance

The COVID-19 outbreak has had a significant impact on the commercial volume of live performances. This has forced organizations to broaden their revenue streams or convert into integrators of performance resources in order to remain in operation. Additionally, the pandemic has accelerated the industry's adoption of online and virtual music events. While a fully developed business model has yet to be devised, instead of providing free performances as in the past, the industry has already begun exploring new revenue streams through means such as virtual tickets to online concerts and donation features. Therefore, online music events are projected to become another platform for singers and bands to perform in the future.

1.4. Copyright

In terms of copyright, as more emerging singers, bands, and creators enter the industry, and as self-media, audio-visual platforms (platforms that collect royalties), and NFT (non-fungible token) markets mature and grow, disintermediation of the royalty collection process has become one of the possible options for singers, bands, and creators. The purpose of copyright management groups or organizations is to aid artists in legal royalty collection. However, the needs of singers, bands, and creators at various stages of development vary. For instance, some developing singers/bands may place a higher emphasis on exposure and song popularity, implying that royalty management must take many factors into account. Therefore, the music copyright industry will face more diverse and adaptable management requirements as the external environment and media forms develop.

1.5. Marketing

Music is now mostly consumed through internet video platforms, music streaming services, and social media platforms. Preferences for the three platforms also vary by country. This makes it difficult for record companies and other connected businesses to formulate marketing strategies using scattered and fragmented market data as a reference. The consumer market is growing increasingly reliant on digital tools, and major record labels are mostly monitoring each platform directly, sometimes with the assistance of artificial intelligence. This enables them to more precisely and effectively market singers/bands and music, thus boosting the value of their assets. In particular, as public access to music gradually shifts away from radio, television, and video platforms and toward social platforms, video platforms are inadvertently compelled to increase associated functions and video content for music sharing (i.e. the share button). Additionally, record labels' marketing strategies have changed away from traditional media and toward digital media and social platforms as primary marketing channels in order to be more accessible to the consumer market.

2 Digital Trends in the Music Industry

Due to the high correlation between technological growth and the development of modern industries, the popular music industry is also affected to a certain extent, from creation and production to distribution and performance. The following is a detailed explanation:

2.1. Gradual transformation of music production, distribution, and artist management

Music production and distribution used to be dependent on record companies and associated businesses. However, by utilizing a variety of music production software and synthesizers (or controllers), self-service platforms, and specialized professional services, singers/bands can complete music production and distribution on their own, thus lowering music production costs. Independent music is gaining steam as a result of an array of self-service options; independent singers/bands and newly emerging singers/bands can now enter the music industry with the assistance of the internet and various professional teams. In terms of artist management, the proliferation of video and social media platforms enables anyone to become a celebrity through self-media. This shows that singers and bands have various entry points into the music industry, and it enables them to allocate their resources flexibly.

2.2. Analysis of AI’s Impact on Music Production and Singers/Bands

With the help of well-trained AI tools, artists are able to utilize software to compose music in a variety of styles and quickly adapt creative content based on business needs. The same AI technologies can also assist creators in producing music that is market-favored by searching through the metadata (such as genre, mood, energy, rhythm, sound, and language) in a big database for music that matches their intended tags; this shows that music search and recommendation functions are more precise and accurate than before. Additionally, as the industry gets more competitive, the A&R model for record companies is gradually becoming more scientific. Along with evaluating amateur musicians’ popularity on social media, record labels have begun to utilize AI to grasp major streaming media, social software, music tours, and various hit songs, which aids them in analyzing market trends.

2.3.Accelerated development of the online music experience

The Taipei and Kaohsiung Music Centers were recently completed and were planned to provide an enhanced and comprehensive performance space, as well as additional professional support services, to accommodate new types of performance events. However, due to repeated outbreaks of the pandemic, in-person music performances have become limited. This led to the rapid development of online and virtual concerts (which utilized live recordings, live broadcasts, and virtual technologies such as VR, AR, XR, and MR) in order to maintain the operations of the performance industry.

Future music experiences are no longer limited to live performances. Singers and bands can interact with fans in innovative ways in real time through online events. Depending on the size and nature of the event, the cost of hosting and participation may also be decreased for artists and fans, respectively, since venue and travel costs are minimized.

2.4.Emerging management and application of music derivative merchandise

NFTs, which have grown in popularity in recent years, have developed into a field of activity for singers/bands. The commodities in this market are based on the blockchain technology. The rights associated with products purchased via NFTs are identical to those associated with products purchased via physical channels, with the exception that NFTs are stored in a shared ledger on the blockchain. Additionally, terms and smart contracts can be defined and embedded in NFTs, ensuring that any resale value is distributed to all issuers. Because the value of NFTs is partially determined by demand, those by popular singers/bands are more likely to command a high price. Additionally, singers/bands with devoted fans or fans who have a strong interest in virtual currency are more likely to sell NFTs successfully.

3 Video Streaming Platform Development and its Impact on the Popular Music Industry

Over the previous two decades, the content industry's popular music business has faced the brunt of the rapid development of digital technology. From CDs and audio downloads to video streaming, the popular music industry has had to rethink its business model. As the consumer market inches closer to online platforms, the popular music industry has been forced to restructure its internal environment in order to respond to changes in the external environment and sustain operations. This article will use YouTube and Spotify, two major international streaming platforms, as examples to demonstrate their business strategies and the influence of streaming platforms on the popular music industry from a sound and video viewpoint.

3.1. Spotify

Spotify's business model is based on subscriptions and advertisements. Spotify generates income from advertisers and users through advertising and subscription fees, respectively, and then distributes the proceeds to record companies. The earnings will subsequently be distributed among the singers/bands and songwriters signed to the record labels. Spotify reported a revenue of €2.5 billion in the third quarter of 2021, up 27% from the same time last year, with 381 million monthly active users and 172 million subscribers.

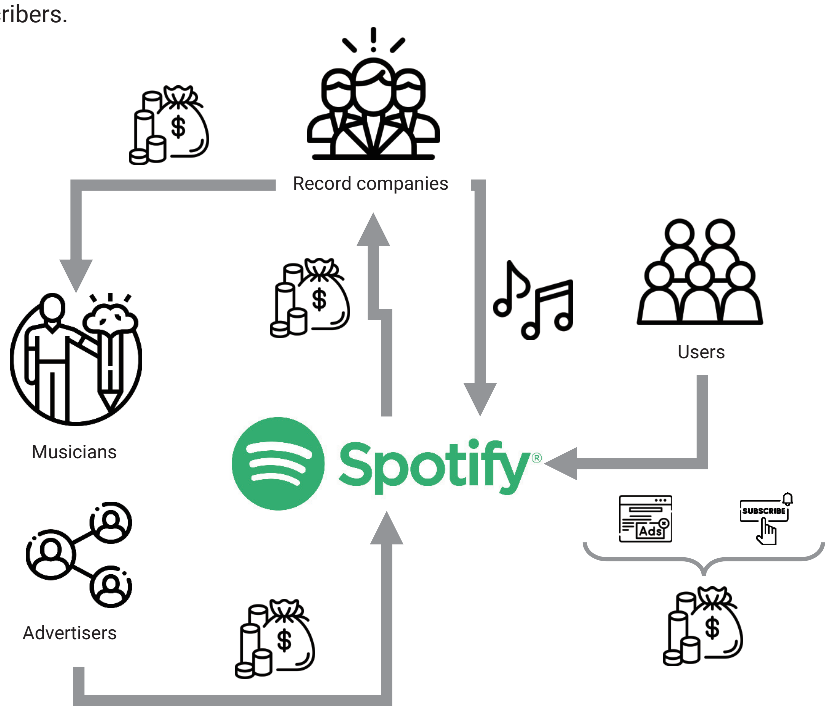


Figure 3-1. Business model of Spotify

■ ***Source:*** Illustrated by this survey.

While Spotify's revenue has grown in recent years, the huge amount of royalties it is required to pay has been a major challenge in its operations. Spotify has evolved from a music platform to a source of audio content in this environment, bolstering services like official soundtracks, audiobooks, voice communities (Spotify Greenroom), and podcasts. Additionally, it delivers officially uploaded video content for albums/singles via Clips, Canvas, and Discovery Mode (Beta version), allowing fans to enjoy additional music derivatives. Additionally, Spotify has launched the Marquee marketing feature. When a business (record labels, studios, etc.) acquires this feature, Spotify will actively promote their music to potential listeners when it is launched, thereby increasing their work's traffic.

3.2. YouTube

YouTube's current business model is subscription-based, ad-supported, and donation-based (for live streams). YouTube earns revenue from advertisers and users via advertising, subscription, and donation fees, and then distributes the revenue to video copyright owners depending on views and donations.

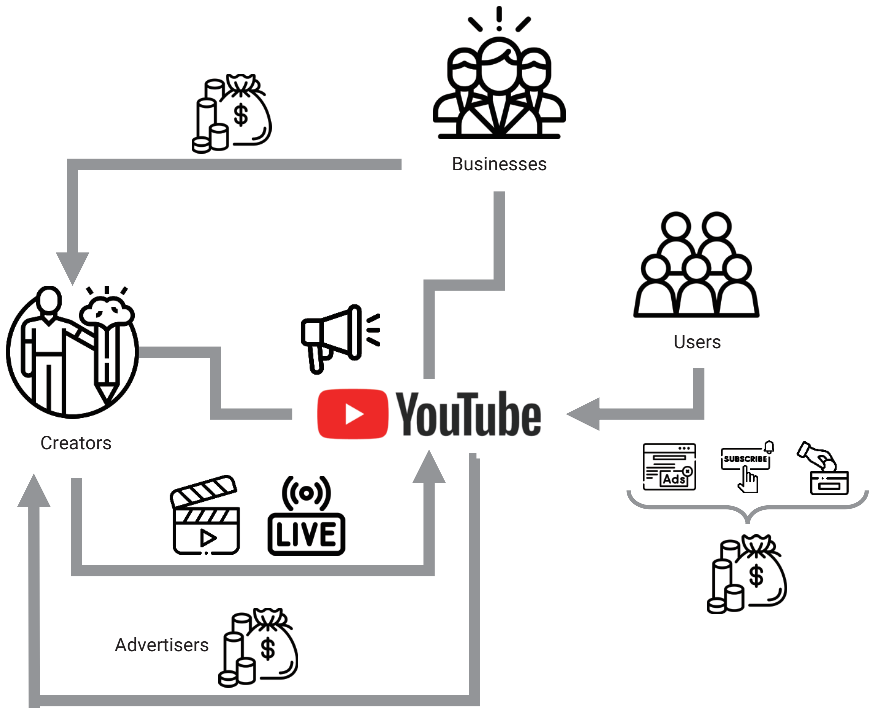


Figure 3-2. Business model of YouTube

■ ***Source:*** Illustrated by this survey.

In 2020, the advertising revenue of YouTube was $19.7 billion. In the third quarter of 2021, YouTube Premium and YouTube Music subscribers reached 50 million.

YouTube is a content platform that allows users (including enterprise users) to freely upload materials. Following years of infringement disputes, YouTube incorporated the Copyright Match Tool and Content ID functions, as well as a channel for filing DMCA takedown requests. YouTube currently has over 9,000 Content ID partners, and the total number of videos claimed using Content ID surpasses 800 million. Over the last five years, YouTube has paid more than 2 billion US dollars to Content ID partners.

The scope of YouTube's services demonstrates that the company has evolved from a video platform to a music service platform (YouTube Music), a live streaming platform, an over-the-top (OTT) platform (such as YouTube TV), and a content producer platform (such as YouTube Originals). With the substantial increase in the popularity of short videos, YouTube has also launched YouTube Shorts and community features to strengthen customer stickiness.

3.3.Impact on the music industry

The influence of video streaming platforms on the popular music industry can be analyzed on three levels: the economic level, the copyright level, and the data level.

■ Economic level

On an economic level, while music revenue decreased as physical music products declined, the popular music industry restored positive growth to music revenue through digital streaming technologies. Taking YouTube as an example, the study report "THE STATE OF THE CREATOR ECONOMY" notes that in addition to directly compensating content creators through advertising revenue or music royalties, YouTube may also have an effect on the supply and consumption of other equipment, either directly or indirectly. Apart from the platform, YouTube also assists creators in obtaining additional sponsorships or sales. In total, YouTube's contribution to the US GDP in 2020 is expected to exceed $20.5 billion, creating 394,000 full-time jobs. Furthermore, using digital music subscription services as an example, according to DiMA's Who Gets Paid and How Much, around 30% of the revenue goes to digital music services, while the remaining 70% goes to rights holders. Regarding the 70% ($69) of revenue paid to rights holders, approximately $6.63 is distributed to singers/bands, $7.11 is distributed to lyricists/composers, and the remainder is allocated to record companies, management groups, and other professional service personnel.

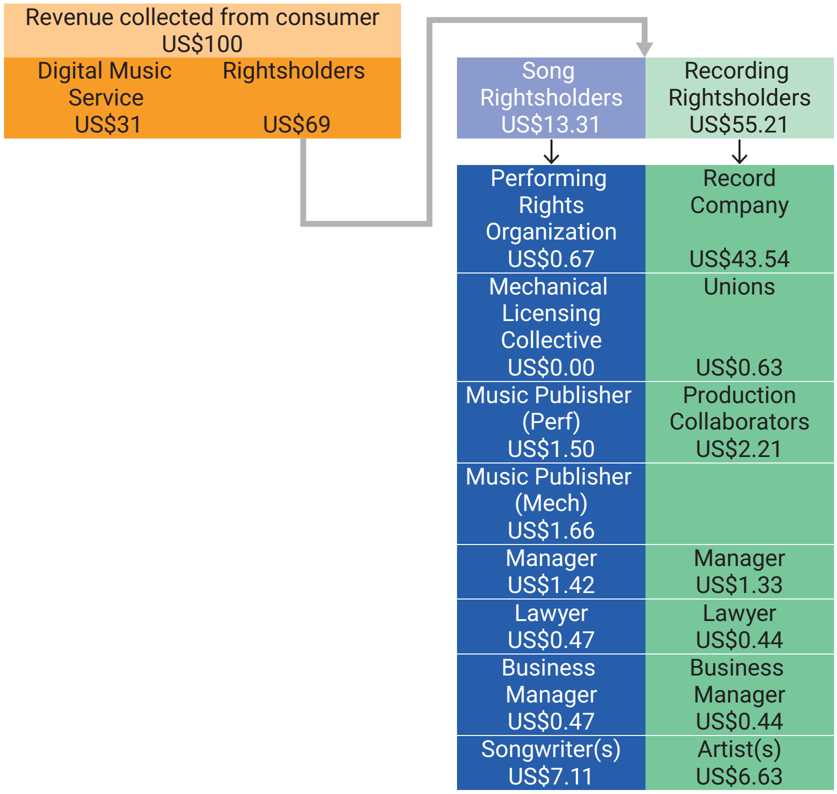


Figure 3-3. Distribution of remuneration for digital music services (using the United States as an example)

■ ***Source:*** DiMA (2020), Who Gets Paid and How Much?

■ Copyright level

In 1998, the United States signed the Digital Millennium Copyright Act, which criminalized the production and dissemination of copyrighted technology, devices, or services. Within this Act, the Online Copyright Infringement Liability Limitation Act (also known as “Safe Harbor” or “DMCA 512 Limitation”) gave online service providers (OSPs) a conditional “safe harbor” clause to protect them from potential liability arising from infringements by others.

This clause enabled rights holders to initiate the takedown process by sending emails, which prompted online service providers to remove or block allegedly infringing materials. However, it was still difficult to effectively manage and prevent cases of infringement. In response to this issue, the EU has recently promoted “The Directive on Copyright in the Digital Single Market” in order to respond to the development of the Internet in the digital age. They hope to promote the free circulation of works in the EU’s unique cross-border environment and strengthen operations in the copyright market.

Article 17 especially emphasizes that content platform operators should be responsible for obtaining content authorizations for "public dissemination" or "public access" from rights holders on behalf of their users. If a content platform operator is unable to obtain authorizations from the rightholder for its user, it should be liable for infringement. However, through the three cumulative conditions in the specific liability mechanism [6], content platform operators can still be exempted from the infringement of their users.

■ Data level

The industry and consumer markets rely heavily on digital platforms, making user data from these platforms crucial to the marketing strategies of singers/bands. However, while platforms hold detailed user statistics, the amount of data that can be accessed by record companies and singers/bands is limited. Taking music streaming platforms as an example, the presence or absence of songs in playlists has a significant impact on song exposure and revenue. Based on the fact that playlists can be edited by platforms and third parties, there is also a discussion about whether songs and playlists are manipulated. Furthermore, the industry has also begun to analyze songs' structures (tone, speed, duration, style, etc.) on popular music charts on digital platforms as a means of creating hit songs that appeal to consumers.

Video content has emerged as the primary subject and focus of development in recent years, owing to the expansion of services offered by video streaming platforms. This is particularly evident on platforms that are already video-based, as they increase their video and social media features in order to attract a larger consumer base. Additionally, based on the various business activities of today's big digital technology companies (such as Amazon, Apple, and Google), it is clear that they are horizontally integrating the content market in order to increase their market share. As the popular music industry transitions from competing in the music market to entering the content market, it will face increased obstacles from digitalization and competition for video content. Due to the industry's ongoing deconstruction and reorganization of various professional services, the ability of the public and private sectors to quickly respond, adjust, and revise business models according to the external environment, will become a critical area of development.

[6] The three cumulative conditions in the liability mechanism for content platform operators include demonstrating that they have made their "best efforts" to obtain an authorization, "best efforts" to ensure the copyright-infringed content will not be uploaded, and that they have disabled access or removed infringed content upon receipt of a sufficiently substantiated notice from rightsholders.

4 Radio and Podcasts: a Future Economy Based on Voice

4.1. Domestic podcast market overview

The term "podcast" is a portmanteau of the terms "iPod" and "broadcast." It is a type of digital media in which file contents (such as audio, video [7], and text) are mostly presented in list form on podcast platforms accessible via the Internet. Users of the platform can listen to and view podcasts by streaming or downloading them to linked terminal devices. The primary mode of operation is that creators upload their programs to a hosting service provider (a content hosting platform), which then generates RSS feed links [8]. The creator delivers planned-to-be-listed content to podcast listening platforms using these RSS feeds. After the platforms confirm they have received the feeds, the listening is complete.

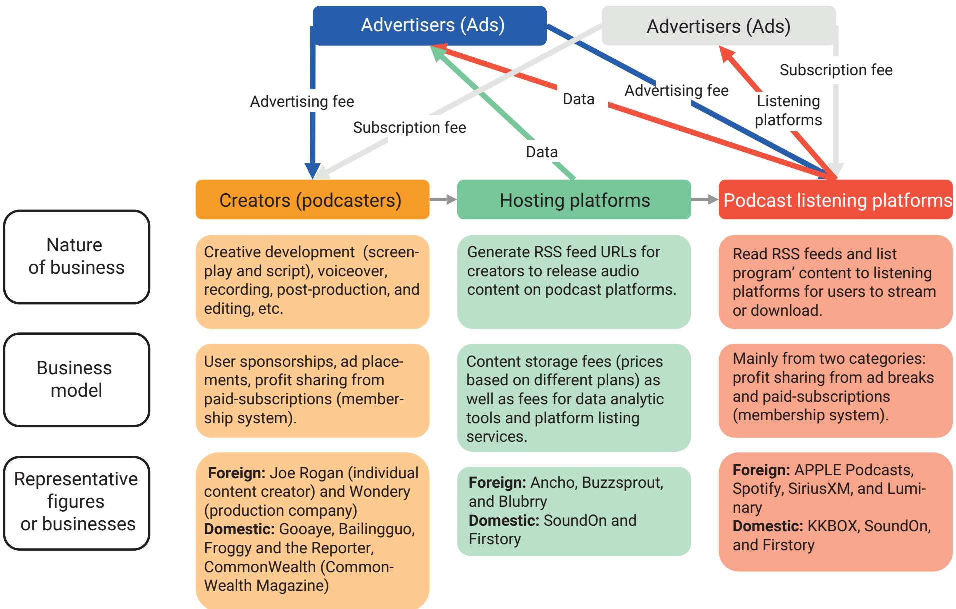


Figure 3-4. Podcast value chain

■ ***Source:*** Illustrated by this survey.

[7] Podcasts are primarily used for listening to audio content, but their technology also supports video content. For example, Spotify announced in 2020 the launch of video podcasts, but the current videos are mostly static conversational content. In addition, the function allows users to freely switch between audio and video content. Invading the YouTube market? Spotify launches video podcast function by Business Next, website: https://www.bnext.com.tw/article/58555/spotify-launches-video-podcasts-worldwide-starting-with-select-creators

[8] RSS (Really Simple Syndication) is a data format for information (specified using a generic XML file). Simply put, it allows creators to assemble audio, text, and other content into one page through a standardized format. This page contains relevant information about the program content, such as program cover, audio content, program title, description, etc. The information is gathered and uploaded to a link provided by a hosting service.

■ Creators

The following phases are involved in the creation of podcast content: screenplay and script development, audio recording and production, and post-editing. In comparison to other digital media, podcasting has a relatively low entry barrier in terms of content-generating capabilities, financing, and time constraints. In terms of technical expertise and investment, podcasting equipment is reasonably inexpensive, including recording accessories (audio mixers), sound equipment (microphones, earphones, etc.), and editing software. Furthermore, because the content is audio-based, recording and editing take far less time than video production and post-production.

■ Hosting services

For podcast hosting providers, the most fundamental service is the provision of RSS feed links for content creators to use when uploading their work to podcast listening platforms. The second function given is content management. This includes monitoring uploaded files on the hosting system, as well as file analysis and other related services. Most hosting providers in today's market have a limit on the size of files that can be uploaded to the system. Those who exceed the limit will be required to pay an additional fee [9] to obtain additional upload space. This is based on two pricing models: pay based on the volume of data submitted or pay a flat rate for limitless uploads. The revenue generated by this service is also a significant source of revenue for hosting services.

■ Podcast listening platforms

As per the global podcast market, current podcast platform operators fall into four categories: mobile operating system developers that provide podcast listening as an additional service (e.g., Apple Podcasts, Google Podcasts, etc.); music streaming platforms that entered the podcast market (e.g., Spotify, Amazon Music, etc.); radio shows converted to podcasts (e.g., iHeartRadio, SiriusXM, etc.); and independent podcast listening platforms (e.g., Stitcher, Luminary, etc.).

[9] Individual NT149/month; Duo: NT198/month; Family: NT268/month

Table 3-1. Comparison of international podcast platforms

Platform	Apple Podcasts	Google Podcast	Spotify	IHeartRadio	SiriusXM	Castbox
Downloading and listening	Free	Free	Free	Free	Free	Free
Premium membership	Subscription-based		Individual/Duo/Family	iHeartRadio Plus and iHeartRadio All Access (Based on Android and IOS) [10]	SXM APP/Other/Student plan [11]	Premium/Premium Pro [12]
Program categories	Society & Culture, Comedy, News, Education, Business, etc.	Society & Culture, Business, Education, Comedy, Technology, etc.	News, True Crime, Comedy, Education, Business, etc.	Business, Comedy, Entertainment, LGBT ,Kids & Family, etc.	Sports, Music, Comedy, News, Entertainment, etc.	Business, Arts, Comedy, Education, History, etc.

■ ***Source:*** Organized by this survey study.

Table 3-2. Comparison of domestic podcast platforms

Platform	Baabao	Firstory	SoundOn	KKBOX
Down-loading and listening	Free	Free	Free	Free
Premium member-ship	-	Donation: one-time donation or subscription [13]	-	NT$149/month or NT$180/month; NT$894/180 days NT$1788/year
Hosting platform	-	-	-	Collaborates with Firstory
Special feature	1. Use RSS feed to upload to other platforms 2. Platform compiles lists of topics based on programming	Simultaneously uploads to KKBOX	Provides audio chat rooms similar to Clubhouse	Provides transcription services for listeners as an alternative listening option
Program categories	Film and Television, Music, Health, News, Technology, Finance, Mental Health, etc.	Arts, Business, Comedy, Education, History, etc.	Kids and Family, Entertainment, True Crime, Genders, Self-help, Sports, etc.	Business, Technology, Finance, Health, News, Kids and Family, True Crime, etc.

■ ***Source:*** Organized by this survey study.

[10] iHeartRadio Plus: US$4.99/month (for Android); US$5.99/month (for IOS). iHeartRadio All Access: US$9.99/month (for Android); US$12.99/month (for IOS)
[11] SXM APP: First four-months free, followed by US$10.99/month; SXM APP+Car+Free upgrade: US$5/month for the first year; followed by US$16.99/month. Other – music showcase: US$12.99/month; Platinum Family Friendly: US$20.99/month; Music & Entertainment Family Friendly: US$15.99/month; Student Plan US$1/month for the first three months, followed by US$4/month.
[12] Premium: NT$100/month, NT$200/three months, NT$670/year; Premium Pro: NT$270/month, NT$500/month, NT$1350/year.
[13] One-time donation: programs uploaded using Firstory Studio will be charged 20% of the donated amount as a handling fee and a platform service fee. The fee is 40% of the donation for non-Firstory Hosting users. Subscription sponsorship: programs uploaded using Firstory Studio will be charged 15% of the donation as a handling fee and a platform service fee. The fee is 35% of the donation for non-Firstory Hosting users.

Taiwan's domestic podcast platforms are mainly independent platforms: Babao, Firstory, SoundOn, and KKBOX (a music streaming platform that entered the podcasting market). While the first three platforms provide their own hosting services, KKBOX invests in and collaborates with Firstory, and uses Firstory's hosting platform to launch programs. Moreover, Firstory's programs will be fully and automatically listed on KKBOX in the future, without the need for additional applications.

■ Business model of podcast platforms

The business model of podcast listening platforms is mainly based on the profits from advertisements and user subscriptions. However, as the podcast market has grown more competitive in recent years, a rising number of platforms have shifted toward vertical integration or even one-stop service via mergers and acquisitions in order to diversify revenue sources. Investing in the creative process, deploying placement advertisements, acquiring hosting service providers, developing content management and data analysis services, acting as an advertising agency, recruiting advertising businesses, cultivating voice celebrities, and expanding into talent management are just a few examples.

■ Domestic podcast consumption

According to the "2021 Survey on a Voice-based Economy," published in May 2021 by CommonWealth Magazine and Eastern Online, the percentage of respondents who listen to podcasts surged dramatically during the COVID-19 pandemic, increasing from 6.6% in August 2020 to 20% in May 2021. The platforms for listening to podcasts are mainly dominated by the built-in platforms on mobile phones. The top three are Apple Podcasts (38.2%), Google Podcasts (36.9%), and KKBOX (29.3%) [14] .

[14] "2021 Survey on a Voice-based Economy" by the CommonWealth Magazine (June 2021)

4.2. Digital development trends

4.2.1. Radio stations continue to expand their online listening services and broadcast networks

The percentage of Internet live streaming increases for low-power, medium-power, and public radio stations, regardless of whether or not they are part of a broadcast network. On the other hand, broadcast network operators are more likely to develop exclusive radio (broadcast network) apps for mobile devices or expand into the popular format of podcasting, indicating their willingness to invest in new media platforms in order to capture the attention of Internet Generation listeners. As compared to the previous year, the percentage of radio stations that did not join a broadcast network grew when it came to live streaming services, podcasts, and radio mobile apps. Local traditional radio stations are actively promoting “audio visualization” and “internet promotion” in response to the convergence of digital technology and the expansion of legal online listening services, and are utilizing live streaming services to provide two-way discussions, explore communication opportunities, and attract the younger generation. Additionally, radio stations are rapidly forming broadcast networks, which would expand their audience, listening range, and listening rate through broadcast network programming.

Table 3-3. Radio stations with legal online music listening services from 2019 to 2020

Unit: %

		Internet streaming services such as HiChannel	Internet live streaming such as YouTube Channels and Facebook	Partnered with internet radios (such as iwant-radio and campus experimental radio)	Podcast services	Aggregation apps (such as TuneIn and myTuner Radio)	Exclusive radio (or broadcast network) apps	Others
Overall	2019	62.50	45.31	-	28.13	12.50	37.50	20.31
	2020	48.33	70.00	1.67	28.33	28.33	45.00	8.33
Trans-regional and high-power	2019	100	100	-	100	-	100	-
	2020	100	100	-	100	-	100	-
Low-power (none)	2019	30.00	60.00	-	10.00	40.00	-	-
	2020	40.00	60.00	-	10.00	20.00	10.00	-
Low-power (network)	2019	73.33	26.67	-	13.33	13.33	40.00	33.33
	2020	41.67	66.67	-	16.67	41.67	66.67	-
Medium-power (none)	2019	88.89	66.67	-	44.44	11.11	44.44	22.22
	2020	87.50	75.00	12.50	25.00	12.50	37.50	25.00
Medium-power (network)	2019	61.90	38.10	-	38.10	4.76	47.62	19.05
	2020	50.00	72.22	-	44.44	33.33	55.56	-
Public	2019	60.00	80.00	-	40.00	-	20.00	40.00
	2020	50.00	66.67	-	50.00	33.33	50.00	50.00
AM	2019	25.00	-	-	-	-	50.00	-
	2020	-	80.00	-	-	20.00	20.00	-

■ ***Source:*** Organized by this survey study (N=96).

4.2.2. A transition from traditional radio to Internet of Vehicles

Within the next five to ten years, the internet of vehicles may arrive, and traditional radio stations may lose their primary listeners—drivers. As a result, businesses are hoping that the NCC and other relevant organizations will assist them in developing novel strategies for the radio industry's development. For instance, they can create an integrated platform similar to the concept of a broadcast cloud that users can download to their mobile devices for offline listening via the cloud database. Another example is pre-loading the integrated radio station app and other pertinent applications onto future in-vehicle systems such as CarPlay, Android Auto, and others. Perhaps its unrestricted nature will enable it to generate new forms and opportunities.

4.2.3. Rise of the podcast industry broadens the market for audio-related businesses

Apart from radio, a sound-based economy includes podcasts, audio publications, and other audio-related businesses. The 2020 pandemic caused the podcast industry to grow rapidly. Even though the epidemic disrupted consumer entertainment projects, advertiser broadcast channels, and consumers' daily lives, it also prompted individuals and businesses to pay closer attention to and invest in the podcast industry. Consumers are willing to spend an average of 6 hours and 23 minutes per week listening to podcasts, with a 60–80% completion rate for each podcast program (which is 20% higher retention than YouTube videos), according to the "SoundOn 2020 H1 Podcast industry report." It is evident that a podcast's distinguishing feature is its increased customer stickiness. While podcasts already have a variety of programming on topics such as finance, current events, and gender, the number of shows continues to grow. However, a plethora of new types of shows remain undeveloped. Additionally, as a result of the podcast industry's consistent funding, many have entered the industry, including YouTubers like Lady Flavor, traditional radio stations (network or non-network), non-industry celebrities, and key opinion leaders. They consolidated multiple channels in the hope of increasing subscriber numbers and uncovering new opportunities. Different audio modes and content can be used to meet the diverse needs of listeners, thereby driving this voice-based economy and expanding its potential markets.

2021 Taiwan Cultural Content Industries Survey Report Vol. III

Popular Music • Radio Industries

Issuer	Hsiao-Ching Ting
Editor-in-Chief	Izero Lee
Vice Editors-in-Chief	Alice Chang and Jiun-Wei Lu (listed based on the number of strokes in the surnames)
Editorial Board	Zoe Wang, Leo Lee, Shu-Wei Lin, Ipa Chiu, Yi-Hua Lo, and Jung Lo (listed based on the number of strokes in the surnames)
Managing Editors	Sascha Huang and Hiok Chong Chhoa
Assistant Managing Editors	Chitse Wang, Amanda Yao, Carolyn Hung, Joe Chang, Ting-Er Chen, Anny Huang, and Rita Hsin-Yi Tsai (listed based on the number of strokes in the surnames)
Publisher	Taiwan Creative Content Agency
Website	https://taicca.tw
Address	5F, No. 158, Sec 3, Minsheng E. Rd., Songshan Dist., Taipei City 105402, Taiwan (R.O.C.)
Telephone	02-2745-8186
Implemented by	Taiwan Institute of Economic Research
Website	https://www.tier.org.tw/
Address	7F, No. 16-8, Dehui St., Zhongshan Dist., Taipei City 104230, Taiwan (R.O.C.)
Telephone	02-2586-5000
Cover Design	Wen Chun Chuang
Art and Design	RICHGRAPHIC CO., LTD.
Published	July 2022
Version	1st edition

ISBN : 978-986-532-612-8

TAICCA
TAIWAN
CREATIVE
CONTENT
AGENCY

ISBN 978-986-532-612-8

9 789865 326128