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Market Study Report on Connected TV and Video On-demand Service, etc.

公正取引委員会
Japan Fair Trade Commission

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1. Purpose of the Study

1 Purpose of the Study and Summary of this Report

(1) Purpose of the Study

In recent years, while viewing time for TV broadcasts has declined significantly, especially among young people, the usage rate and duration of video on-demand services (VOD) have been increasing. TV viewing time (weekdays) has decreased by 30-40% over the last decade or so, from 140 minutes (2009) to 83 minutes (2021) for teens and from 142 minutes (2009) to 91 minutes (2021) for those in their 20s[1], On the other hand, the usage rate (for all generations) of VOD[2] skyrocketed during the COVID-19 pandemic from 17.4% in 2019 to 46.3% in 2020, 52.0% in 2021, and 52.1% in 2022[3]. Similarly, the average time spent watching online videos[4] (weekdays) increased from 31.5 minutes (2019) to 49.7 minutes (2020), 56.7 minutes (2021), and 64.1 minutes (2022) for all age groups. In 2022, for those in their teens and 20s, the average time spent viewing online videos (104.7 and 119.6 minutes) exceeded the average time spent watching TV videos[5] (52.9 and 82.1 minutes, respectively)[6].

In addition to smartphones, tablets, etc., devices used by consumers to view VOD include "Connected TV (CTV)" (refers to TVs with built-in Internet connectivity [smart TVs] or TV-connection devices [streaming devices]. For details, see 2.1(1) below [same applies hereinafter]) have become increasingly popular in recent years. With respect to their penetration rates, for smart TVs, the rate was 18.0% in 2016, increasing to 32.7% in 2021[7],

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1 Ministry of Internal Affairs and Communications (MIC), first "Study Group on the Broadcasting System in the Digital Age, Public Broadcasting Working Group, (September 21, 2022), Appendix 1-4, "Media Use Behavior of Japanese People Based on Time Series Data (Study of 10,000 users)" (Nomura Research Institute, Ltd.), p. 14
https://www.soumu.go.jp/main_content/000837156.pdf

2 A service that allows users to select the video content they wish to view via the Internet.

3 Information and Communications Policy Research Institute, MIC, "Study Report on Information and Communications Media Usage Time and Information Behavior in Fiscal 2022" (June 2023), p. 75.
https://www.soumu.go.jp/main_content/000887589.pdf
Note that this data does not include on-demand broadcast programming distribution services provided by commercial key broadcasters such as NHK On-demand and TVer, or VOD that distribute video content in a linear format such as ABEMA, but covers on-demand VOD such as Hulu and Netflix. The following table shows the number of services that are included in the "on-demand" type video distribution services in this report, these distribution services are collectively referred to as "VOD." For details, see 2.2 below.

4 Video that can be viewed via the Internet (including downloaded video). This term refers to video on-demand services and video sharing services such as YouTube.

5 Refers to real-time viewing or recorded viewing of television broadcasts.

6 See footnote 3 above, p. 37, and "Study Report on Information and Communications Media Usage Time and Information Behavior in FY2020" (August 2021), Information and Communications Policy Research Institute, MIC, p. 35.
https://www.soumu.go.jp/main_content/000765258.pdf

7 Intage Corporation, "Gallery of Knowledge" (article published June 7, 2021)
https://gallery.intage.co.jp/smarttv/
Note that the Study data pertain to the percentage of respondents who use a smart TV connected to the Internet.

and for streaming devices, the rate was 8.9% in 2016, increasing to 33.7% in 2023[8]. Thus, more and more people are using CTVs to access VOD and other services[9]. In particular, for subscription-type video on-demand services (SVOD), which are the largest in terms of market size among VOD, the results also indicate that the highest percentage of viewers (42.6%) watch videos on TVs, exceeding the percentage who watch videos on smartphones (41%)[10]. As for CTVs, there are concerns about the growing dominance of global digital platform businesses (Amazon, Google) that provide the operating system (TV OSs) built into CTVs for which use has been expanding in recent years (For more details, see 2.1(2) below (same applies hereinafter))[11].

With regard to video on-demand through CTV, there is a layered structure consisting of ① devices, ② TV OSs, ③ VOD, and ④ video content at each level (for details of this layered structure, see 2.3 below). If VOD providers are unjustly excluded or unjustly disadvantaged by the actions of TV OS providers in such a layered structure, the creative flair of VOD providers may be stilted. In addition, if the acts of VOD providers, etc. cause content providers (meaning entities that provide video content to VOD providers, etc.[12] (same shall apply hereinafter)) to be inappropriately disadvantaged, the creative flair of content providers may be stilted. In such cases, the delivery of diverse and high-quality content may be impaired, to the detriment of consumers.

To this end, the Japan Fair Trade Commission [JFTC] will conduct a study (hereinafter, "this study") from 2023. This study aims to investigate the market structure and competitive pressures (e.g., the position and market share of operators, the degree of substitution between services, etc.) in the CTV-related sector, which covers CTVs and VOD provided through CTVs, to evaluate the state of competition, and ascertain whether there are Antimonopoly Act (AMA) and competition policy problems being caused by digital platform businesses and, if so, to take necessary measures to ensure a fair competition environment[13].

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8 Hakuhodo DY Media Partners, Media Environment Research Institute, "Media Fixed Point Study 2023" (released May 23, 2023) , p. 5
https://mekanken.com/data/4159/
Note that the Study data pertain to the percentage of people who own a streaming device.

9 Regarding the viewing of VOD on the TV screen, one operator has pointed out that the demand for CTVs is driven by access to video content, i.e., demand for VOD.

10 See Chart 3-21 below.

11 For example, feedback from one of the interviewed operators indicated that the presence of Amazon and Google in the OS installed in CTVs is increasing, and that they consider it to be becoming an oligopoly. It is also pointed out that the TV OS providers are in an oligopolistic situation, and that outside of Japan, there are cases of service changes without prior notice and unfair commission charges based on such an oligopoly.

12 Specific examples include broadcasting stations, movie distribution companies, publishing companies, animation production companies, and video content creators and producers.

13 In the "Investigation Report on Mobile OS, etc." (February 2023), which summarizes the results of a fact-finding Study conducted by the JFTC on the operating system (mobile OS) installed in smartphones, etc., it is stated that "In the future, it is assumed that a new ecosystem will be formed

(2) Structure of This Report

This report is organized in sections 1-7 as shown in Chart 1-1.

Chart 1-1 Structure of this report

Purpose of the Study	The first section describes the purpose and methodology of this Study.
Market Overview and Conditions	The second section provides an overview of CTV and VOD, the third section describes the expansion of the scale of the CTV-related sector, and the fourth section describes the business transactions in the CTV-related sector.
Assessment of market characteristics and competitive conditions	In the fifth section, we examine the characteristics of the CTV market, with a particular focus on the TV OS layer among the CTV-related sector, and then evaluate the competitive situation in the market. In addition, for the VOD layer, the characteristics of that market will be examined and the state of competition in that market will be evaluated.
Thinking behind the Antimonopoly Act and Competition Policy	In the sixth section, based on the evaluation in the fifth section, we summarize the AMA and the competition policy perspectives in the CTV-related sector.
Conclusion	In the seventh section, we summarize this report and describe the approach to be taken moving forward.

2 Study Method

(1) Consumer Questionnaire

We studied consumer usage of CTV and VOD in the form of a questionnaire to consumer monitors of a research firm. This can be summarized as follows.

Study target: Consumers who use VOD, etc.

Study method: Web-based questionnaire (contracted Study)

Conducted on: July 10, 2023

Number of respondents: 4,000[14]

(2) Questionnaire for Businesses

A questionnaire study was conducted among VOD providers as a market study on their business transactions with content providers, TV OS providers, and consumers. This can be summarized as follows.

Study target: VOD providers

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centered on products and services other than smartphones. The JFTC will closely monitor developments related to such new ecosystems, conduct fact-finding investigations as necessary, and clarify the AMA and the competition policy issues while taking consumer interests into consideration."

14 2,000 Internet-connected TV owners (viewing VOD on the same TV),1,000 Internet-connected TV owners (viewing VOD on other devices), and 1,000Internet-connected TV non-owners (viewing VOD on other devices). Total of 4,000 respondents

Study method: Written questionnaire

Number of shipping destinations: 26

Respondents: 22 companies

Recovery rate: 84.6%.

In the course of this study, we issued a report order under Article 40 of the AMA to two VOD providers.

(3) Interview-based Study[15]

Interviews were conducted with 43 companies from among those providing goods and services in the CTV-related sector, including TV OS providers and VOD providers, taking into account the industry and size of the companies.

In addition, written questions, etc. were sent to the two main TV OS providers (Amazon and Google) to obtain their opinions.

Additionally, discussions were held with one government agency that has jurisdiction over areas related to CTV-related sector.

(4) International Cooperation

In the course of compiling this report, the JFTC exchanged opinions with the Competition Commission of India[16] and the Korea Fair Trade Commission (KFTC)[17] on the investigations conducted by each bureau.

15 Includes those conducted prior to March 2023, when this Study was initiated.

16 In 2021, the Competition Commission of India initiated a review of Google's alleged competition law violation case with respect to its smart TV operating system.
https://cci.gov.in/images/antitrustorder/en/1920201652249245.pdf

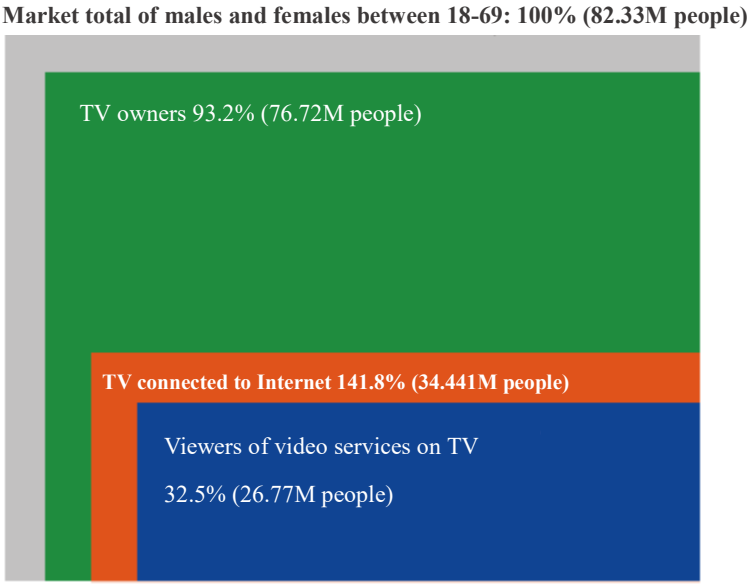
17 The Korea Fair Trade Commission (KFTC) has initiated a Study to determine the market structure and actual transaction status of domestic online video services in 2023.
https://www.ftc.go.kr/www/selectReportUserView.do?key=10&rpttype=1&report_data_no=9997

2. Overview of CTV and VOD, etc.

1 CTV Overview

As for the use of Internet and VOD on TVs, a private research firm estimates that, as of November 2021, as shown in Chart 2-1, about 34 million people connect their TVs to the Internet (about 46 million if those who currently do not have their TVs connected to the Internet but would like to do so in the future are included), and about 27 million people use video services on their TVs[18] (accounts for 80% of those who connect their TVs to the Internet[19].) Given this, it can be assumed that a significant number of consumers in Japan who connect their TVs to the Internet use VOD on their TVs.

Chart 2-1 TV Internet Access Rates, etc. and Population Estimates[20]



In order to use VOD, etc. on a TV screen, it is necessary to connect the TV to the Internet. The main methods are as follows: ① TVs with built-in Internet connection functions (hereinafter referred to as "smart TVs"). (For details, see (1) a. below.) ②Connecting to the Internet by

18 "Video services" include both VOD and video sharing services.

19 By video service, more than half of users of VOD such as Amazon Prime Video, Netflix, and Hulu, which offer many movies and other long-form content, watch videos on TV. Although the percentage of TV viewing of video sharing services is low, as shown in Chart 2-11 below, YouTube has the highest percentage of TV viewing among video sharing services, with about 20% of users viewing it on TV.

20 Macromill, Inc. "The TV Internet connection rate is 41.8%, with an estimated population of 34 million. One in three YouTube users watch from their TVs. ~2021 Year-End Latest TV Usage Trend Study" (December 23, 2021) Chart 2-1.
https://www.macromill.com/press/release/20211223.html

(externally) plugging a TV connection device that enables use of the streaming service[21] on the TV screen (hereinafter referred to as a "streaming device"; see (1) (b) below for details) ③ By using a Blu-ray/DVD/HDD recorder, home-use game console, etc. (hereinafter collectively referred to as "other external devices") connected (externally) to the TV, and connecting said streaming device to the Internet. (For details, see (1) (c). below.) (See Chart 2-2).

Of these, smart TVs and streaming devices, which are primarily used to access VOD and other services on TVs, are collectively referred to in this Study as "CTVs[22]."

Chart 2-2 Overview of CTV

21 A service that uses a mechanism to simultaneously play and use content data such as video and music while receiving them while connected to the Internet.

22 As described in (1)(a) and (b) below, since smart TVs and streaming devices are equipped with a TV OS, the term "CTV" shall include TV OS. As described in 3 below, especially when focusing on its layer structure, CTV is discussed by dividing it into two layers: the device layer and the TV OS layer, and the device layer is referred to as "CTV device."

(1) Device Overview

(a) Smart TVs

Smart TVs, as described in the aforementioned note, have built-in Internet connectivity, and by connecting to the Internet, can access a variety of services, including VOD. Some define "smart TV" as "a TV terminal or set-top box[23] that provides expanded functions such as web and social media use, app use, and device-to-device integration through an Internet connection". For the purpose of this report, however, as mentioned above, "smart TV" refers to a TV set that can connect to the Internet via a router, etc., and can access various services, including VOD, as a stand-alone television set. Meanwhile, external devices such as set top box (STB)[24] that connect to a TV set and display content such as videos on the TV screen are defined as (b) and (c) below.

Since around 2007, TVs have been able to connect to the Internet, making services via the Internet available on TVs, and with the increase in the number of apps on TVs, the term "smart TV" has become widespread since around 2010[25].

Smart TVs have a built-in operating system (OS), as described in (2) below, to enable the use of VOD and other services via the Internet. Although some TV manufacturers themselves develop such OSs, most of the smart TVs sold in Japan today are equipped with OSs provided by businesses that are not TV manufacturers, as shown in Chart 2-9 below.

As shown in Chart 2-3, about 80% of major TVs sold in Japan as of November 2022 are Smart TVs, and thus a significant number of TVs sold today are Smart TVs.

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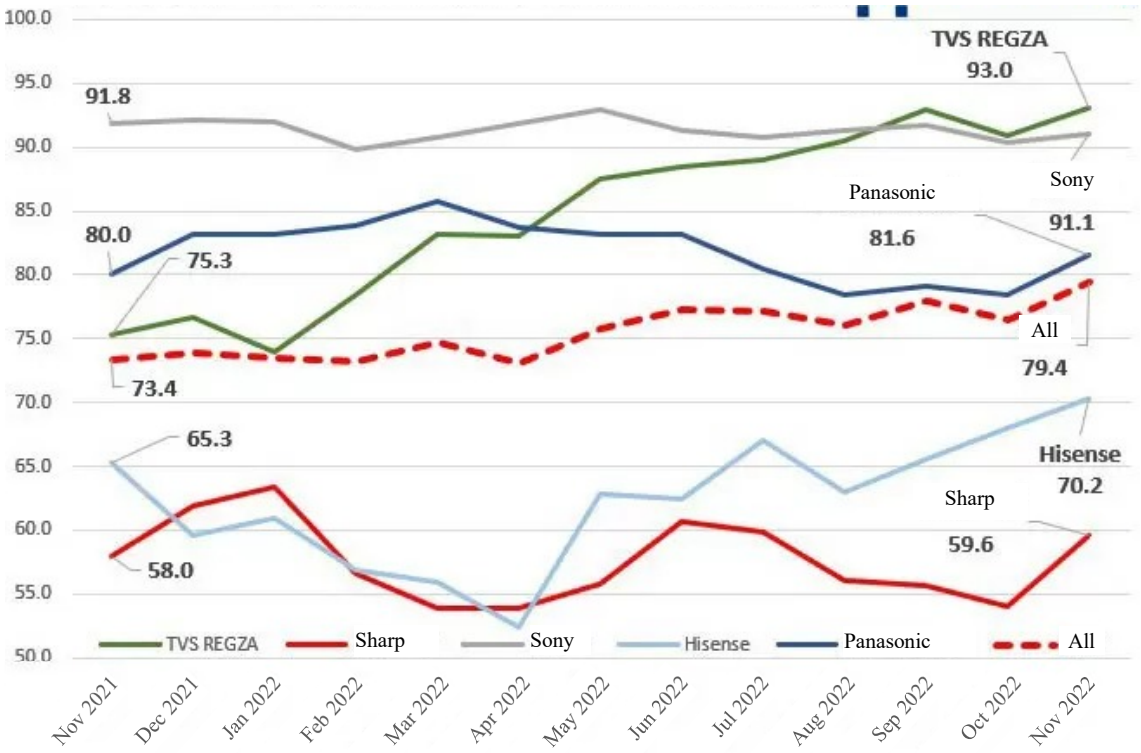
23 MIC, "White Paper on Information and Communications 2012," Part 1, Chapter 2, Section 3.
https://www.soumu.go.jp/johotsusintokei/whitepaper/ja/h24/pdf/n2030000.pdf

24 Set Top Box (STB) is an abbreviation for "Set Top Box," which was previously used to refer to a device that receives broadcast signals from terrestrial, cable, and satellite broadcasting services and changes them to a state where they can be viewed on general TV sets. In recent years, in addition to these, devices that make various types of content, such as videos transmitted over the Internet, available for viewing on ordinary televisions are also called STBs."
Satellite Broadcasting Association of Japan "STOP! Unauthorized Viewing: Sales of STBs Capable of Unauthorized Viewing and Unauthorized Viewing"
https://www.eiseihoso.org/fusei/fusei03.html
In this report, as described in c. below, set-top boxes are treated as other peripheral devices rather than streaming devices because they are not considered to be manufactured primarily for the use of VOD.

25 MIC, "Study Group on Various Issues Concerning Broadcasting " (5th meeting) (February 24, 2016), Document 5-3, "Current Status of Smart TVs," p. 2.
https://www.soumu.go.jp/main_content/000401160.pdf

Chart 2-3: Composition of Internet-enabled TV sales by major TV manufacturers[26]



Nov 2021-Nov 22 Monthly <Max. panels>

Smart TVs currently available in Japan are shown in Chart 2-4, and these are mainly sold by TV manufacturers. Some can be operated using a dedicated remote control like conventional TVs, others can be operated by voice alone using the voice assistant function, and still others can be operated via a smartphone using a remote-control app or other means. In addition, the dedicated remote control usually has a dedicated button for one-touch activation of a specific VOD, etc., which enables immediate use of said VOD, etc. by pressing this button.

26 BCN+R, "'Net on TV' is key to gaining market share, with 80% of models compatible" (December 11, 2022). https://www.bcnretail.com/market/detail/20221211_308024.html

Chart 2-4 Examples of Smart TVs sold in Japan[27]

Manufacturer	Product/Brand Name	type	screen size
TVS REGZA	REGZA	OLED/LCD	43V-inch to 100V-inch
SHARP	AQUOS	OLED/LCD	24V-inch to 75V-inch
LG Electronics	LG	OLED/LCD	42V-inch to 88V-inch
Panasonic	Viera	OLED/LCD	43V-inch to 75V-inch
SONY	BRAVIA	OLED/LCD	43V-inch to 85V-inch
Hisense	Hisense	liquid crystal	43V-inch to 75V-inch

(b) Streaming devices

A streaming device is a device that is directly connected to a television and enables the access to streaming services (especially VOD) on the television via the Internet by connecting the device to the Internet. This report defines a "streaming device" as a device that is manufactured primarily for the purpose of using VOD through apps installed on the device. In Japan, streaming devices are mostly sold by businesses that are not TV manufacturers, as shown in Chart 2-5. The main forms are: ① the stick type, in which the device itself is directly connected to the HDMI connection terminal on the TV, and ② the stationary type, in which the device itself is placed near the TV and the device itself is connected to the TV via an HDMI cable. The streaming device can be operated using a dedicated remote control, as in the case of the smart TV shown in (a) above, as well as by voice alone using the voice assistant function, or via a smartphone. In addition, the dedicated remote control usually has a dedicated button for one-touch activation of a specific VOD, etc., which enables immediate use of said VOD, etc. by pressing this button. On the other hand, some large stationary models are equipped with large storage capacity and high processing power. These allow users not only to use VOD, but also to download various apps, including game apps, to the device and use them on the TV.

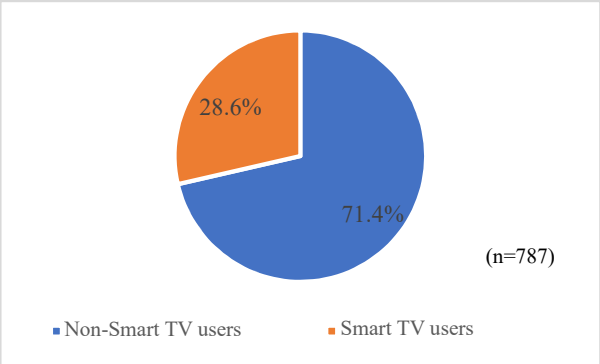
27 Prepared by the JFTC based on information published by each company for models sold in 2023.

Chart 2-5 Examples of Streaming Devices Sold in Japan[28]

Manufacturer	Product/Brand Name	Onboard OS	shape	Sales start date
Amazon	Fire TV Stick (Fire TV Stick 4K)	Fire OS	stick type	2014 (2018)
Amazon	Fire TV Cube	Fire OS	deferred type	2018
Google	Chromecast with Google TV	Android	stick type	2020
Apple	Apple TV (Apple TV 4K)	tvOS	deferred type	2007 (2017)
U-NEXT	U-NEXT TV	Android	deferred type	2018
PIXELA	PIXELA Smart Box	Android	deferred type	2017

When a streaming device is connected to a smart TV, it is still possible to use VOD via the streaming device by switching to the streaming device's screen from the TV input screen. As for the actual status of combined use of streaming devices and smart TVs, according to a consumer questionnaire, 225 of the 787 users who use streaming devices to watch VOD also use smart TVs, as shown in Chart 2-6. The ratio was 28.6%. This suggests that not many consumers who currently use streaming devices use smart TVs in conjunction with them. Therefore, the main users of streaming devices are likely to be owners of TVs that do not have Internet connectivity on their own (that is to say, TVs that do not qualify as smart TVs).

Chart 2-6 Smart TV Use by Users of Streaming Devices



Streaming devices, like smart TVs, are equipped with an OS to connect to the Internet and enable VOD, etc. This OS is positioned as the foundation for providing information and services to users on streaming devices. As shown in Chart 2-4 and Chart 2-5 above, while the TV OS providers (Amazon and Google) and device manufacturers are different

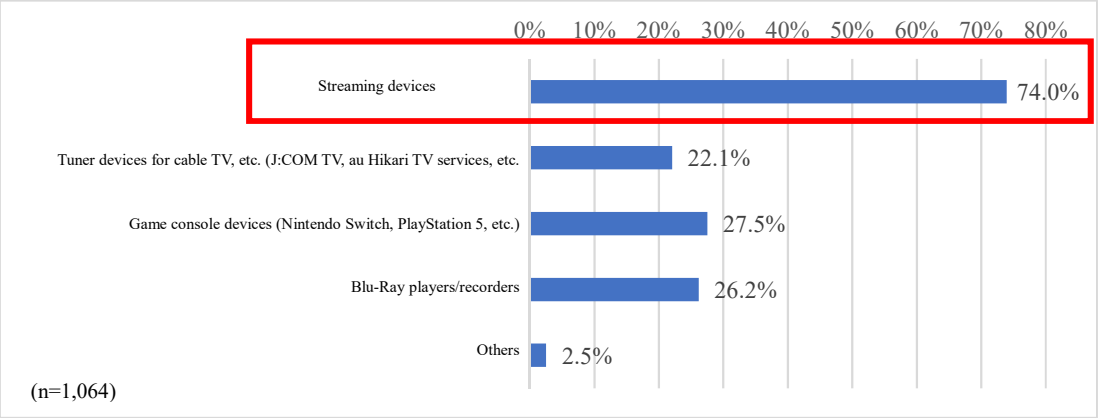
28 Prepared by the JFTC based on information published by the respective companies.

for smart TVs, for streaming devices, the TV OS providers (Amazon and Google) also manufacture and sell major streaming devices such as the Amazon Fire TV Stick and Chromecast, and the TV OS providers have installed OS developed in-house in their streaming devices.

In Japan, stick-type streaming devices began to be offered by domestic carriers around 2013[29], but as of 2023, support has effectively ended for all these devices. On the other hand, as shown in Chart 2-5 above, use of streaming devices provided by digital platform operators such as Amazon Fire TV, Chromecast, and Apple TV as external devices for TVs to connect the TV to the Internet appears to be spreading in Japan[30].

According to the consumer questionnaire, as shown in Chart 2-7, streaming devices were the most frequently selected external devices (streaming devices and other external devices) for connecting TVs to the Internet (74.0%).

Chart 2-7 External devices used to connect to the Internet (multiple responses allowed)



29 MIC "White Paper on Information and Communications 2013" Part 1,Chapter 1, Section 2 Charts 1-2 to 1-7 https://www.soumu.go.jp/johotsusintokei/whitepaper/ja/h25/pdf/n1200000.pdf

30 As noted in footnote 8 above, according to Hakuhodo's Media Fixed Point Study 2023, streaming device ownership in 2023 is up by 33.7%, from 8.9% in 2016.

(c) Other external devices

There are devices that are directly connected to the TV as separate devices from the streaming device, enabling the use of VOD on the TV screen by connecting said device to the Internet. Major devices include Blu-ray/DVD/HDD recorders, set top boxes, and home video game consoles. Like smart TVs and streaming devices, these other external devices have built-in operating systems that enable them to connect to the Internet and use VOD, etc. Sometimes the operating system is the same as that of the CTV, and sometimes the device's own operating system is used. Thus, it can be said that these other peripheral devices have aspects in common with streaming devices in that they are devices that are connected externally to the TV and have a built-in OS and are able to use VOD. However, these other external devices can be said to be devices for using services other than VOD, such as recording and games, and are not considered to be devices that are manufactured primarily for the use of VOD. With respect to the purpose of this use, the following points have been raised by businesses providing set-top boxes and video game consoles.

- (Service providers offering set-top boxes for cable TV and optical Internet access) The main users of set-top boxes are viewers of terrestrial, BS, and CS broadcasting available via cable TV and optical Internet, and although it is possible to use VOD on TVs through set-top boxes, consumers who do not wish to view terrestrial, BS, and CS broadcasting cannot use set-top boxes just to use VOD on their TVs, and VOD are not provided on a stand-alone basis.
- (Businesses that manufacture and sell home video game consoles) In response to the need to use VOD on the same device used for games, from the perspective of improving the user experience, VOD are also provided through game consoles. However, the gaming console is primarily provided as a device for playing games.

Thus, even if similar OSs are installed or VOD are available, these other external devices are not considered to be manufactured (or provided) primarily for the purpose of using VOD on TV screens, and the user base is considered to be different for each device. For this reason, external devices for TVs that are not manufactured (provided) for the primary purpose of using VOD are treated separately from the streaming devices described in (b) above, and are considered as other external devices in this report.

(2) Overview of the OS in a CTV

Personal computers (PCs) are equipped with an operating system (OS), which is basic software that enables even users without in-depth knowledge of the PC to use it by integrally managing and controlling the status of various components. Each of the devices mentioned in the preceding paragraph (1) is a type of PC, and each is equipped with an OS to enable smooth execution of various processes, such as connecting to the Internet and allowing users

to view various VOD on TV screens. Among these, the OS on CTVs, which is the subject of this Study, is the "TV OSs" (including the user interface on CTVs[31] and background services[32], on the CTV[33],[34]. The same shall apply hereinafter). Businesses providing such an TV OSs can either develop their own proprietary TV OSs or use an open source OS (e.g. Linux or Android Open Source Project). Below is an overview of TV OSs.

(a) Android (Android TV/Google TV)

The Android Open Source Project ("AOSP") is an open source operating system, the majority of which is released by Google under its Apache 2.0 open source license contract.

Google is developing a user interface and background services that rely on the AOSP code for CTV. In other words, Google will offer ① a user interface and background services branded as Android TV (such interface, etc. and CTVs equipped with such interface, etc. are referred to as "ATV") and ② a user interface and background services branded as Google TV (such interface, etc. and CTVs equipped with such interface, etc. are referred to as "GTV"). The operating system (AOSP) installed in ATVs and GTVs, as well as their background services and user interfaces, are hereinafter generally referred to as Android in this report.

Other third-party TV OS providers are also developing their own user interfaces and background services (e.g., Amazon's Fire TV) using AOSP code. These have been on sale for ATVs since 2014 (2015 in Japan), and for GTVs, including in Japan, since 2020. Both ATV and GTV have the ability to display recommended content to users (including the ability to display personalized recommended content). When the user selects the content displayed by these functions, the app is launched and the user can view said content. In addition, ATV also displays recommended content created by each app, which can be viewed by selecting the content displayed there.

When users obtain additional app, such as VOD, they either (i) download the app for ATV from Google Play, an app store, just as they do with smartphones and other devices, or (ii) when obtaining via GTV, in which case Google Play is integrated into the user interface and background services, allowing users to download apps using GTV (rather than launching Google Play separately). (The app store used by CTV is hereinafter referred

31 A screen display (e.g., design, images, text, etc.) that allows users to search, select, view, etc., content.
32 Refers to software executed and processed inside the device that provides CTV functionality (e.g., Bluetooth connectivity, etc.).
33 From a technical point of view , these user interfaces and background services are apps installed on the TV OS and are considered to be different from the TV OS. However, from a consumer perspective, these apps are not selected and executed separately, but are automatically executed and processed inside the device and used as an integral part of the TV OS.
34 The configuration of the user interface and background services installed with the TV OS will be determined by the relevant TV OS provider.35 Google "Payment" Policy Section 2

to as the "TV App Store"). In addition, when users purchase paid digital content within an app obtained from Google Play, they can use Google's in-app billing system (Google Play Billing Library)[35] and pay with the payment method registered in the user's Google account[36]. Basically, the payment may be completed on the TV device, but if payment authentication is set up on the Google account to prevent accidental purchases, it may be necessary to perform a separate operation on the smartphone or other device[37]. In Japan, Google currently does not specifically prohibit the display of QR codes that direct users to alternative billing systems.

As shown in Chart 2-8, on the ATV home screen, the respective VOD apps are displayed vertically ("App ①" and "App ②" in yellow on the chart), and the recommended content for each app is displayed in a single line right next to it ("Content ①" and "Content ②" in blue on the chart). On the home screen of the successor GTV, the method of displaying recommended content has been changed, including a line that displays recommended content across genres and apps based on users' viewing trends (the blue "Content ①" and "Content ②" in the "Your Recommendations" section in the chart)[38]. Users can change whether or not to display the recommended content of a particular VOD app, and GTV can also be set to not display the recommended content itself[39]. In the U.S., Google has also partnered with several providers to aggregate over 800 free TV broadcast channels in GTV's "Live Tabs" and categorize them by genre and other factors to provide users with quick access to TV programs on the air.[40]

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35 Google "Payment" Policy Section 2
https://support.google.com/googleplay/android-developer/answer/9858738?visit_id=638369097174293756-3208246788&rd=1
Users are supposed to be able to choose between Google's in-app billing system and an alternative billing system provided by the app developer.
Google, "Learn about Google Play & alternative billing systems"
https://support.google.com/googleplay/answer/11174377?hl=en#zippy=%2Chow-will-i-know-if-i-am-making-a-purchase-through-google-plays-billing-system-or-an-alternative-billing-system%2Chow-can-i-check-if-a-transaction-was-made-through-google-plays-billing-system-or-an-alternative-billing-system

36 See "Payment Policy" in footnote 35 above.
Google, "Google Play Payment Policy."
https://support.google.com/googleplay/android-developer/answer/10281818?hl=ja

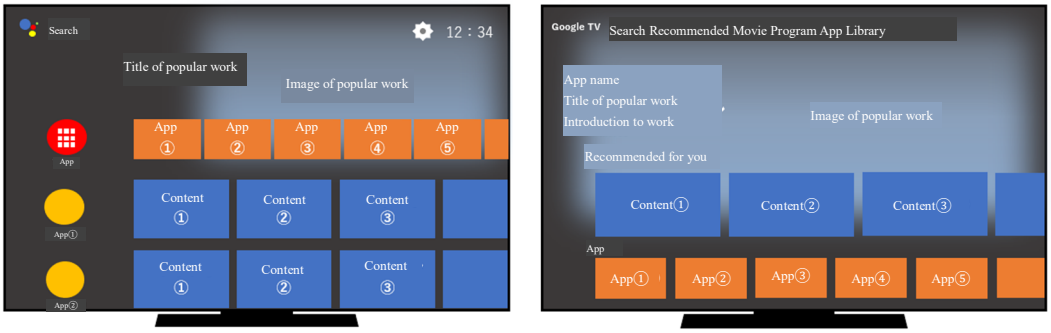
37 Google "cannot complete the purchase process on Android TV"
https://support.google.com/androidtv/answer/9460831?hl=ja

38 Google "Google TV: Entertainment you love, with help from Google" (September 30, 2020)
https://blog.google/products/google-tv/entertainment-you-love-google-tv/
"Google TV helps you search and discover movies and shows from across your subscriptions." As stated, content that can only be viewed on VOD to which the user has not subscribed will not be displayed as recommended.

39 Google, "About Recommendations on Google TV."
https://support.google.com/googletv/answer/10466129?hl=ja&co=GENIE.Platform%3DAndroid

40 Google, "Discover more than 800 free TV channels with Google TV" (April 11, 2023).
https://blog.google/products/google-tv/google-tv-free-channels/

Chart 2-8 Screens Displayed on ATV and GTV



ATV GTV

(b) Fire OS

This is an operating system provided by Amazon, which, is installed in streaming devices and tablets in Japan manufactured and sold by the company, as well as in smart TVs manufactured and sold by other companies. As it was designed based on Android, it is said that if an app runs on Android, it will almost certainly run on Fire OS-based devices by making adjustments to the program code and other additional work. Amazon will provide services on the Fire OS that are equivalent to those provided on Android, with the exception of Google-specific services (e.g., location-based services), and will provide services to app developers (including VOD providers. The same applies hereinafter[41].)

If users wish to obtain additional apps, such as VOD, on their Fire OS devices, they can download the app from the Amazon Appstore (although they can also download apps from outside the app store via a browser or other means). In addition, when a user purchases digital goods within an app obtained from the Amazon Appstore, Amazon's in-app billing API is used[42] and payment is made using the payment method registered by the user in their Amazon account. However, it is prohibited to display a QR code, etc. on a TV screen to direct users to a billing system other than that of the TV OS provider[43].

The home screen of CTVs with the Fire OS has the ability to display recommended content by category, as well as a development environment for recommended display extensions only for CTVs with Fire OS[44]. It is also possible to search across video content from multiple VOD, including Amazon Prime Video, a VOD provided by Amazon.

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41 Amazon, "Fire OS Overview" (last updated May 19 ,2023).
https://developer.amazon.com/ja/docs/fire-tv/fire-os-overview.html

42 Amazon "Amazon Developer Services Agreement", In-App Products Schedule 6.
https://developer.amazon.com/ja/support/legal/da

43 See footnote 42 above.

44 Amazon "How to Submit Recommendations Including Amazon Extras"
https://developer.amazon.com/ja/docs/fire-tv/recommendations-send-recommendations.html#amazon-enhancements
For example, in the recommendation display on the home screen, it can be developed in a way that it displays age restrictions, user ratings, content overview, etc. below the title of the recommended content from the video distribution service app.

Users can turn off recommended content notifications from specific VOD apps, but they cannot hide the recommended content display on the home screen itself[45].

(c) OS adopted by REGZA

The REGZA OS is an OS developed by REGZA (formerly Toshiba) based on Linux (hereinafter referred to as "REGZA OS[46]") and is installed in all but a few of the TVs sold by the company.

Instead of the product being equipped with an app store-like mechanism for users to search for and download their favorite apps, compatible VOD and other apps are pre-installed in the product. These apps can be added and updated when the OS is updated via the Internet or other means.

When a user purchases paid content within an app for a REGZA OS-based smart TV, the REGZA OS does not have a dedicated payment system, so the payment is made with the payment method registered in advance in the account for the service via a browser or app on the smart phone or PC.

Depending on the product, the OS is optimized for the proprietary functions of TVS REGZA, such as the "Mirukolle" service[47],which corresponds to the home screen, and the Time Shift Machine function[48].

(d) tvOS

This is an OS developed in-house by Apple and installed in Apple TV, a streaming device sold by the company.

When users obtain VOD and other apps on their tvOS-powered devices, they download the apps from the App Store, which is the same app store used by iOS-powered devices

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45 Amazon, "Overview of Recommended Features" (last updated October 29, 2020)
https://developer.amazon.com/ja/docs/fire-tv/recommendations-overview.html

46 Since there is no official name, this report uses this name for convenience.

47 TVS REGZA "Mirucolle" is a service that allows you to encounter the things you want to watch
https://www.regza.com/charm/mirucolle
This is a service that can be used by connecting a TV to the Internet. It has a function to display recommendations for TV programs that have been broadcast or recorded, and content distributed by VOD, after packaging them based on the names of celebrities, program genres, etc., according to preferences analyzed based on the user's content viewing history. The service has a function to display recommendations (video content can be searched across multiple VOD, etc.).

48 TVS REGZA "Freely enjoy the programs you want to watch, when you want to watch them" (Life with a Time Shift Machine)
https://www.regza.com/craftmanship/special/timeshift
This service automatically records digital broadcast programs from multiple channels to an external HDD connected to the TV set, without the need to reserve recordings for individual TV programs once the user has made the initial settings. The program list is comprised of recorded programs, allowing users to watch in the same broadcast environment as when the program was first broadcast, as well as a function to return to the beginning of the program, etc., even while they are watching the program.

(e.g., iPhone)[49] [50]. In addition to the apps common to iOS-powered devices, there are also Apple TV-specific apps available on the App Store. When a user purchases paid content within an app obtained from the App Store, the user is expected to use Apple's In-App Purchase system (In-App Purchase API), similar to iOS-powered devices[51], and payment is made using the payment method registered in the user's Apple ID.

The home screen has an array of app icons similar to those on iOS devices, and the Apple TV App provided within it allows users to search across video content from multiple VOD, including the company's own VOD (Apple TV+). In addition, the "Watch Now" recommendation box in this app displays recommended content tailored (personalized) to the user registered on the device and allows the user to control which recommendations are displayed for which users[52].

(e) VIDAA OS

This is an OS developed and provided by VIDAA USA Inc. based on Linux, and is installed in Hisense brand smart TVs.

Instead of an app store, more than 200 apps are prepared in advance, and apps are added or updated as the OS and other systems are updated. In Japan, when a user purchases paid content within an app, payment is made according to the payment method in the app and based on the account the user has registered with the app.

The home screen displays a horizontal row of app icons for VOD, with thumbnails of recommended content based on the user's viewing history displayed below them. In addition, video content can be searched across multiple VOD (Universal Search function)[53].

(f) OS used by Viera

Panasonic is developing its own OS (hereinafter referred to as "Viera OS[54]") and this is installed in the smart TVs sold by the company.

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49 Older Apple TV models have a non-tvOS operating system and cannot download apps from the App Store. For this reason, as with the REGZA OS, a mechanism was adopted whereby apps are updated in conjunction with updates to the OS itself.

50 Apple "Buy/Download Apps on Apple TV"
https://support.apple.com/ja-jp/guide/tv/atvb8124f0a7/tvos

51 Apple "App Store Review Guidelines" 3 . 1 . 1 In-App Purchase
https://developer.apple.com/jp/app-store/review/guidelines/

52 Apple "Manage recommendations displayed in the ‘Home’ section of the Apple TV app."
https://support.apple.com/ja-jp/guide/tv/atvb0916ba14/tvos

53 VIDAA USA"VIDAA TV OS"
https://www.vidaa.com/vidaa-os/

54 Since there is no official name, this report uses this name for convenience. It is also sometimes referred to as "My Home Screen OS".

Compatible VOD apps are preloaded on the product, and the app icons are placed on the home screen. For apps that do not have icons pre-positioned on the home screen, users can add them to the home screen from a storehouse called the "app market". In addition, new apps may be added to the home screen when updating smart TV features.

When using a VOD that requires user registration, the user must register in advance according to the method specified by the service provider[55]. In addition, when users purchase paid content within the app of a Viera OS-based smart TV, they pay using the payment method provided by the relevant service provider.

On the home screen, thumbnails of recommended content for each VOD are displayed at the same size as the app icons, and it is possible to check the program names and other details by hovering the cursor over the relevant thumbnail.

(g) webOS

This is an open-source HTML-based OS developed primarily by LG Electronics, and the OS customized for smart TVs is embedded in products sold by the company. The OS was originally developed by Palm as a mobile OS, and after Hewlett-Packard acquired Palm in 2010, LG acquired the said business in 2013 and developed the TV OS[56]. This TV OS is also being offered to other partner TV manufacturers since 2021[57].

When users obtain VOD and other apps on their webOS devices, they download the apps from a dedicated app store where more than 300 businesses list their apps (some apps are not TV-compatible). In addition, when users purchase paid content within an app obtained from the app store, they can choose a payment method from among their LG TV account balance, credit card, or PayPal[58].

On the home screen, utilizing AI technology, widgets for weather forecasts and search are displayed at the top of the screen, and a list of recommended content and apps based on user preferences and viewing history is displayed below them in respective horizontal rows. The display of recommended content and app list can be hidden by changing the settings on the user side. It also has a function that allows users to search across the Internet, TV broadcasts, and VOD[59].

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55 Panasonic "TV Viera Smart TV App [List of Apps]".
https://panasonic.jp/viera/apps/application.html

56 Impress R&D Corporation, "Internet White Paper 2015," Part 5-1, "International Trends in Smart TV Platforms."
https://iwparchives.jp/files/pdf/iwp2015/iwp2015-ch05-01-p224.pdf

57 LG, "LG Expands webOS Smart TV Platform to TV Brand Partners" (February 24, 2021).
http://www.lgnewsroom.com/2021/02/lg-expands-webos-smart-tv-platform-to-tv-brand-partners/
However, webOS is not currently offered to other TV brand partners in Japan.

58 LG "Making Payments"
https://eguide.lgappstv.com/manual/gb/12002_6.html

59 LG, "LG's webOS 6.0 Smart TV Platform Designed for How Viewers Consume Content Today"

(h) Summary

Chart 2-9 summarizes the status of each of the above TV OS from (a) to (k) in terms of their installation in products currently being sold in Japan.

Chart 2-9 Major TV OS installed in products sold in Japan[60]

TV OS	Device manufacturer	Device	Representative product/brand name	Sales start date
Android (ATV/GTV)	SHARP	Smart TV	AQUOS	2017
	SONY	Smart TV	BRAVIA	2015
	TVS REGZA	Smart TV	REGZA (limited to 2021 models)	2021
	FUNAI ELECTRIC	Smart TV	FUNAI	2020
	TCL	Smart TV	TCL	2019
	Google	Streaming device	Chromecast	2020[61]
	Huawei	Streaming device	U-NEXT TV	2018
	NTT DOCOMO	Streaming device	dTV Terminal	2015
Fire OS[62]	FUNAI ELECTRIC	Smart TV	FUNAI/fire tv	2022
	Amazon	Streaming device	Fire TV Stick	2014
REGZA OS	TVS REGZA	Smart TV	REGZA	Circa 2007
tvOS	Apple	Streaming device	Apple TV	2007
VIDAA OS	Hisense	Smart TV	Hisense	2014
Viera OS	Panasonic	Smart TV	Viera	Circa 2011
webOS	LG Electronics	Smart TV	LG	2014

As one can see, there are two types of TV OS installed in CTVs: one type is developed by the device manufacturer itself, and the other is provided by a TV OS provider. When explaining the reason for in-house development of a TV OS, one TV manufacturer stated

(January 8, 2021).
https://www.lgnewsroom.com/2021/01/lgs-webos-6-0-smart-tv-platform-designed-for-how-viewers-consume-content-today/

60 Prepared by the JFTC based on information published by each company. In addition to this, Samsung Electronics' TVs with Tizen OS and Roku's streaming devices with Roku OS are popular in the global CTV market, but they have not spread in Japan due to limited sales channels in the country (see 3(1) below).

61 Early Chromecast models released in 2014 (2013 in the U.S.) are not considered streaming devices as defined in this report, so the table only covers their successors sold in 2020.

62 Panasonic is expected to collaborate with Amazon to include Fire OS in Panasonic smart TVs from FY2024 onward.
Panasonic "Begins Collaboration with Amazon Fire TV to Create New Smart TV Experience Value"
https://news.panasonic.com/jp/press/jn240109-4

in an interview that they have been developing TV functions before they started offering Internet connection functions on TVs, and that they are developing their own TV OS to maximize the strengths of their TVs, such as recording functions. On the other hand, TV manufacturers that have the TV OS developed by other companies answered that they do not want to develop their own TV OS, but rather receive the TV OS from a TV OS provider, due to the cost of in-house development and ongoing maintenance costs, and also because many CTVs are already equipped with the TV OS and app businesses offer various services (apps) available for use on the TV OS, which makes for a better user experience. The device manufacturers decide whether to develop their own TV OS or receive it from a TV OS provider based on these considerations.

2 Overview of VOD

A "VOD " is a service in which video content selected by service operators (providers) is posted in catalog form and users can select what they want to watch from among this video content via the Internet[63].

VOD started out as paid services (SVOD as described in (1) below and TVOD/EST as described in (2) below), but after the appearance of services that allowed users to view video content for free (AVOD as described in (3) below) in return for them displaying advertisements, their use expanded rapidly as online advertising expanded[64].

VOD providers provide video content to users, which they procure from movie/video production and animation production companies, plan and produce in-house (including cases where they outsource to other production companies), or conclude broadcasting rights contracts for sports and live music events. Video content is provided to users on VOD platforms operated by the service providers. The delivery format of such VOD can be divided into three major patterns (SVOD, TVOD/EST, and AVOD) as follows.

Note that the majority of VOD providers do not only adopt one of the following modes of delivery. Instead, they offer plans that combine SVOD and TVOD/EST, or such plans and AVOD in parallel. In addition, multiple plans may be offered within the same delivery format by differentiating the genre and quantity of video content to be delivered.

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63 The EU Directive 2010/13, which regulates audiovisual media services in Europe, defines "on-demand audiovisual media service" as "an audiovisual media service provided by a media service provider for the viewing of programs at the moment of the user's choice and when there is an individual request from the user, based on a catalog of programs selected by the media service provider". The definition of VOD in this report is generally consistent with the definition of "on-demand audiovisual media service" in Europe.

64 MIC, "White Paper on Information and Communications, 2018 Edition," Part 1, Chapter 1, Section 1. https://www.soumu.go.jp/johotsusintokei/whitepaper/ja/h30/pdf/n1100000.pdf

(1) SVOD

SVOD (Subscription VOD) is a subscription VOD that allows users to watch certain video content as much as they like within a set period of time through payment of a fixed fee. Contract terms are often set on a monthly or yearly basis, and monthly fees often range from a few hundred yen to 2,000 yen. There are also advertisement-supported SVODs that offer lower subscription fees than regular SVODs in exchange for ads played while watching video content[65].

Among the YouTube services operated by Google is YouTube Premium, which allows users to watch YouTube without advertisements, and offline playback through background playback and video storage. This service, like the VOD service SVOD, allows users to pay a fixed fee and receive such services for the duration of the contract, and can be positioned as a subscription service. Regular YouTube, which can be used for free without paying a flat fee, is shown in (3) below.

(2) TVOD/EST

TVOD (Transactional Video On Demand) is a pay-per-view VOD in which users pay per video content and can only watch it for a set period of time. The amount paid per item of content is often several hundred yen. In contrast, there are pay-as-you-go VOD that allow users to watch video content indefinitely by downloading it to their devices, which are known as Electric Sell-Through (EST). The amount paid per item of content is often around 1,000 yen or more.

In addition, there is a form of distribution in which live content, such as live music concerts and martial arts fights, can be viewed only by those who have purchased tickets, etc. sold in advance, and this distribution format may be called Pay Per View (PPV)[66].

(3) AVOD

AVOD (Advertising Video On Demand) is a VOD that allows users to watch videos for free in exchange for advertisements being inserted into the video content.

There are two main types of advertisements that are played during playback of the video content (the portion of the CTV where such advertisements are displayed, including video content, is hereinafter referred to as the "advertising space"): ① advertisements that appear from advertising spaces managed by content providers, and ② advertisements that appear from advertising spaces managed by VOD providers.

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65 One operator stated that ad-supported SVOD does not fall under AVOD because it is not free distribution, but is only a form of SVOD.

66 ABEMA, "What is Pay-Per-View?" https://help.abema.tv/hc/ja/articles/360053235872-%E3%83%9A%E3%82%A4%E3%83%91%E3%83%BC%E3%83%93%E3%83%A5%E3%83%BC%E3%81%A8%E3%81%AF

The former ① is generally the case where a content provider distributes content using the VOD platform of a VOD provider, and where the content provider sells advertising space to a person who wishes to advertise (the persons who have purchased the advertising space is hereinafter referred to as the "advertiser"), and the content provider pays the VOD provider a fee for the use of the VOD platform, which is funded by the advertising revenue earned from the sale of the advertising space. The latter ② is generally the case where a VOD provider receives a content license from a content provider for the use of video content, the VOD provider distributes the video content, and the VOD provider inserts advertising spaces in the content within the scope of the agreement with the content provider, and sells such advertising space to advertisers[67]. In either pattern, users can watch video content for free in exchange for viewing advertisements during video content playback.

In addition, YouTube, which is operated by Google, allows users to upload their own video content to its VOD platform as content providers, and users can select the video content they wish to view from among the uploaded video content, which is known as a video sharing service. In light of the previously described definition of a VOD, although the service provider (Google) manages the distribution of video content on the video sharing platform (YouTube) by removing inappropriate video content, it does not select video content to be posted by negotiating with content providers. For that reason, Google's YouTube is not considered a VOD in this study. However, as shown in Chart 2-10, survey results indicate that YouTube has by far the largest number of users compared to other video sharing services as well as other VOD, and that YouTube is the most commonly used service for users to view video content (with 70 million monthly users in Japan[68], and about 2.5 billion users worldwide[69]). Additionally, in terms of viewing on TV devices, according to the "VOD/Broadcasting/Video Software Market User Analysis Report (November 2022 Survey Edition)" by GEM Partners Inc. (hereafter, "GEM Partners User Analysis Report"), as shown in Chart 2-11, the percentage of viewing by TV is much smaller at 5.4% for niconico, 5.3% for LINE LIVE, and 2.5% for TikTok, compared to 17.9% for YouTube, which has the highest percentage of viewing by TV compared to other video sharing services. Furthermore, among video sharing services other than YouTube, TikTok and Instagram, which are used by many users, are so-called vertical short videos that are intended to be viewed without changing the orientation of the smartphone in your hand. Meanwhile, YouTube is rather a so-called horizontal video that

67 With regard to the aforementioned ad-supported SVOD currently offered, it is considered that the VOD provider manages the advertising space, and thus falls under the pattern described in (2) above.

68 Google-Think with Google, "YouTube as a Marketing Hint--Trends Emerge, Multi-Formats and More Become Part of Our Lives" (March 2023). https://www.thinkwithgoogle.com/intl/ja-jp/marketing-strategies/video/yt-trendsreport2022/

69 statista "Most popular social networks worldwide as of October 2023, ranked by number of monthly active users" (October 2023) https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/

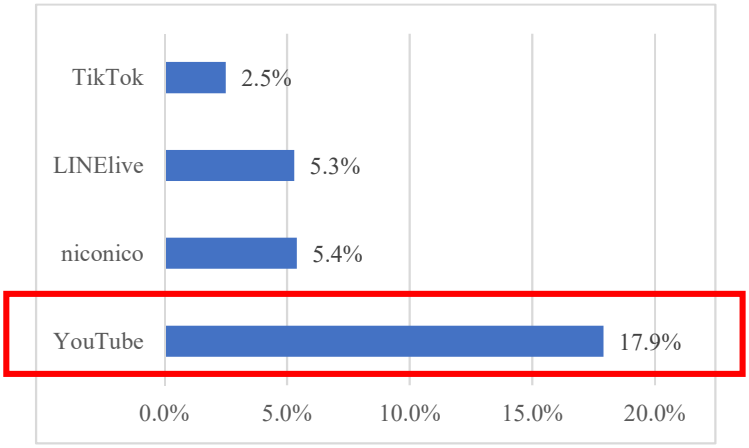
assumes a certain amount of viewing time and is generally of a certain length, and that due to the characteristics of the videos distributed in this way, are more likely to be viewed on TVs than other video sharing services. In this regard, one operator pointed out that if the use of YouTube via TV becomes more widespread in the future, there may be even more opportunities to produce videos longer than one hour that are intended for TV viewing. In addition, given that YouTube is a service provided by Google, an OS provider for TVs, this study also covers YouTube among video sharing services, and touches on it to the extent necessary to evaluate the state of competition related to VOD, as well as views from the AMA and the competition policy.

Chart 2-10 Usage Rates of Major VOD/Sharing Services, etc., (All Ages and Age Groups)[70]

	YouTube	niconico	Netflix	Amazon prime video	DAZN	ABEMA	GYAO!	U-NEXT	dTV	Hulu
All gen. (N=1,500)	88.2%	14.9%	20.6%	38.5%	2.5%	14.7%	7.1%	4.0%	1.8%	6.9%
10s (N=140)	97.9%	27.9%	27.1%	38.6%	2.9%	21.4%	4.3%	5.0%	0.7%	7.9%
20s (N=217)	98.2%	28.1%	34.1%	52.5%	3.7%	27.6%	6.9%	7.4%	1.8%	6.5%
30s (N=245)	95.1%	17.1%	22.0%	48.2%	3.3%	15.9%	7.8%	4.5%	2.0%	10.6%
40s (N=319)	90.3%	9.1%	18.5%	43.6%	2.2%	14.7%	6.3%	3.1%	3.1%	6.6%
50s (N=307)	87.0%	10.4%	18.6%	32.2%	2.9%	9.1%	11.4%	3.9%	2.0%	7.5%
60s (N=272)	68.0%	7.7%	9.9%	19.9%	0.7%	5.9%	4.0%	1.5%	0.4%	2.9%

	TELASA	Paravi	FOD Premium	NHK On-demand	Wowow members on-demand	Tver	NHK plus	radiko	N/A
All gen. (N=1,500)	1.5%	2.5%	1.9%	2.7%	1.9%	24.6%	4.2%	14.1%	9.3%
10s (N=140)	2.1%	2.1%	2.1%	0.7%	1.4%	29.3%	2.9%	9.3%	2.1%
20s (N=217)	1.8%	3.7%	1.4%	0.9%	0.5%	28.6%	1.8%	11.1%	1.4%
30s (N=245)	2.0%	2.4%	1.6%	0.8%	0.4%	29.0%	2.9%	13.5%	2.4%
40s (N=319)	0.9%	1.9%	2.5%	2.2%	0.9%	27.3%	2.5%	16.9%	7.2%
50s (N=307)	1.3%	2.9%	2.6%	4.9%	3.3%	23.8%	6.2%	18.6%	9.4%
60s (N=272)	1.1%	1.8%	0.7%	5.1%	4.4%	12.9%	7.7%	11.4%	27.9%
Male (N=760)	1.2%	1.8%	0.9%	3.3%	1.8%	20.5%	4.5%	14.9%	7.9%
Female (N=740)	1.8%	3.1%	2.8%	2.2%	2.0%	28.8%	3.9%	13.4%	10.8%

Chart 2-11 Percentage of viewing on TV for each video sharing service[71]



70 Footnote 3 above - Part II, Chapter 5, Table 5-3-1-2

71 Prepared by the Fair Trade Commission based on GEM Partners User Analysis Report, p. 162. https://gem-standard.com/

Chart 2-12 provides an overview of major VOD and YouTube in Japan, based on the results of business and consumer questionnaires.

Chart 2-12 Overview of Major VOD and YouTube[72]

Service name (Name of business)	Start period [73]	Monthly (yen, incl. tax)	Supported OS							Delivery mode		
			Android	Fire OS	REGZA OS	tvOS	VIDAA OS	Viera OS	webOS	SVOD	TVOD /EST	AVOD
Amazon Prime Video (Amazon)	2015.9	600[74]	○	○	○	○	○	○	○	○[75]	○	×
Netflix (same)	2015.9	790～	○	○	○	○	○	○	○	○	×	×
Hulu (same)	2014.4	1,026	○	○	○	○	○	○	○	○	○	×
Disney+ (Disney)	2020.6	990	○	○	○	○	○	○	○	○	×	×
U-NEXT (same)	2007.6	2,189	○	○	○	○	○	○	○	○	○	×
DAZN (same)	2016.8	4,200	○	○	○	○	×	○	○	○	×	×
WOWOW On Demand (WOWOW)	2022.7	2,530	○	○	○	○	○	○	○	○[76]	×	×
dAnime Store (docomo Anime Store)	2012.7	550	○	○	×	×	×	×	×	○	○	×
Lemino (Docomo)	2011.11	990	○	○	×	×	×	×	×	○	○	×
DMM TV (DMM.com)	2009.2	550～	○	○	○	×	○	○	×	○	○	×
GoogleTV[77] (Google)	2011.5	—	○	×	×	×	×	×	×	×	○	×
YouTube Movies[78] (Google)	2011.12	—	○	○	○	○	○	○	○	×	○	×
TVer (same)	2015.10	—	○	○	○		○	○	○	×	×	○
Abema Premium/ABEMA PPV/Abema (CyberAgent)	2016.3	960	○	○	○	○	○	○	×	○	○	○
YouTube Premium/YouTube (Google)	2005.12	1,280～	○	○	○	○	○	○	○	○	×	○

72 Prepared by the JFTC based on information published by each company.
The monthly fee is listed as the monthly fee for SVOD.

73 In the event of a service name change, the date at which the original service was first started is indicated.

74 Amazon Prime Video (SVOD) is not offered as a stand-alone SVOD, but rather as part of the benefits for Amazon Prime members, including expedited delivery benefits in Amazon's online malls, and therefore the monthly membership fee for such Prime members is recorded. Note that Amazon Prime Video (SVOD) is offered as a stand-alone service on the Prime Video app on iOS and tvOS only, for 580 yen per month.

75 While the company does not currently offer ad-supported SVOD, it has announced that beginning in 2024, limited advertising will be included in Prime Video programs and movies in some countries. The service is expected to be introduced in the United States, the United Kingdom, Germany, and Canada in early 2024, followed by France, Italy, Spain, Mexico, and Australia. As for pricing, there are no plans to change the current prices for Prime members in 2024, but a new $2.99/month ad-free option will also be offered for U.S. Prime members, and prices for other countries will be shared at a later date.
Amazon "An update on Prime Video" (September 22, 2023)
https://www.aboutamazon.com/news/entertainment/prime-video-update-announces-limited-ads

76 SVOD is offered as an ancillary service to broadcasting services.

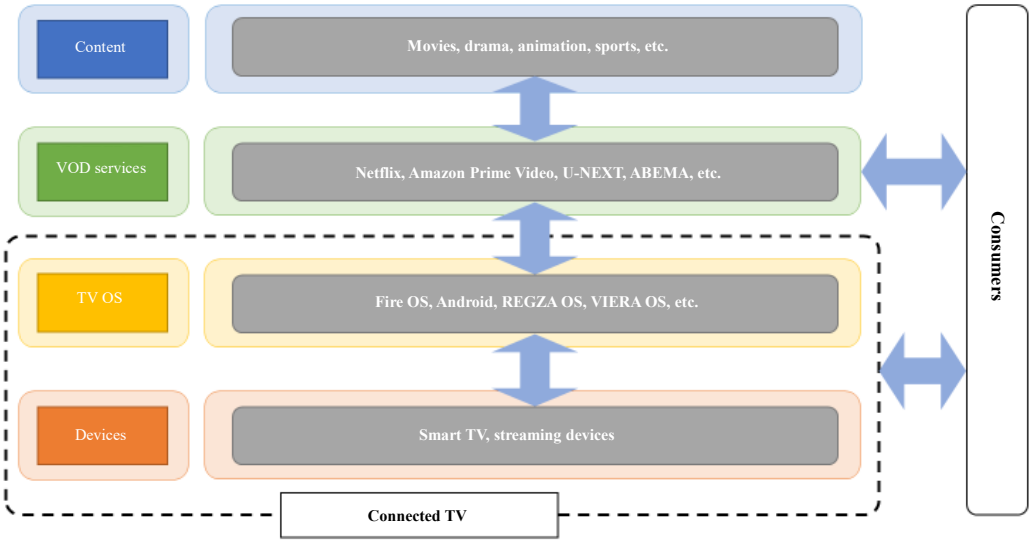
77 Google Play Movies & TV, the VOD on ATV, will end on January 17, 2024 and be integrated into Google TV.
https://support.google.com/androidtv/thread/247411854/upcoming-changes-to-google-play-movies-tv

78 YouTube Movies (now named "YouTube Movies & TV") is a catalog of video content selected by Google, and is therefore positioned as a regular VOD rather than a video sharing service. The same applies to GoogleTV.

3 Layered Structure for CTV

To summarize the layered structure for consumers to use VOD through CTVs, in the CTV-related fields, four layers are formed: ① a layer for CTV devices (smart TVs and streaming devices), ② a layer for the TV OS embedded in the CTV devices in ①, ③ a layer for the VOD where the video content is distributed, and ④ a layer for the video content distributed in ③VOD(in particular, CTV consists of two layers ① and ②) Focusing on each provider, this layered structure can be organized as shown in Chart 2-13.

Chart 2-13 Layered Structure for CTV in VOD



At the device layer, CTV device manufacturers are the suppliers and users who use CTVs are the consumers.

In the TV OS layer, when a device manufacturer does not develop its own TV OS[79], the TV OS provider is the supplier, and the device manufacturer that installs the TV OS in its device and the VOD provider that provides services on the TV OS are the users, respectively. In addition, in order to use VOD on a TV screen, a TV OS that links the VOD with the TV device is indispensable, so it can be said that TV OS providers are suppliers and consumers become users by purchasing CTV devices.

In the VOD layer, VOD providers that operate and provide VOD are the suppliers, and consumers who use VOD are the users.

In the video content layer, the content providers who offer video content are the suppliers, and the VOD providers who offer video content to consumers as VOD are the users.

The details of the business contracts in each layer are described in Chapter 4 below.

79 If a device manufacturer develops its own TV OS, the TV OS layer is considered as an integral part of the device layer.

3. Expansion of the Scale of the CTV-Related Sector

According to estimates by private research firms, etc., the number of users and market size of CTV and VOD, etc., are continuously expanding as shown below, and these goods and services are linked to consumer lifestyles.

1 CTV

(1) Expansion of CTV

As mentioned in 2.1(1) above, the use of VOD on TV screens exists primarily through viewing from smart TVs and through streaming devices, and the usage rate of these devices is increasing year by year.

As described in 2.1(1)(a), Internet connections had been available for TVs in Japan since around 2007, the full-scale introduction of smart TVs came later than the period of high demand for TV replacements accompanying the switch from analog to digital TV broadcasting,[80] and the MIC with others were mainly promoting smart TVs in terms of HybridCast[81], which combines information from the Internet with TV broadcasting screens. Furthermore, the development of Japanese TVs was focused on high-definition video (4K and 8K). It is said that the demand for TVs capable of accessing VOD, and the ways to use such TV usage had not yet become apparent.[82] As of the end of 2014, only 14.3% of households had used the TV's Internet access feature within the past year.[83] As a result, there was a lack of development of a globally competitive TV OS in Japan, and CTV did not gain much traction.

Subsequently, from around 2020, the use of VOD was seen to increase as consumers spent more time in their homes to prevent the transmission of COVID-19 infection, and among these consumers, the use of VOD increased, and there was particular growth in the use of VOD via television.[84] The percentage of households that have used the TV's Internet access feature within the past year has risen from 18.4% at the end of September 2019 to 36.5% at the end of August 2022.[85] As shown in Chart 2-1 above, not only the usage rate of Internet

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80 Impress R&D Corporation, "Internet White Paper 2012," Part 5-2, "The Latest Trends in Smart TVs. https://iwparchives.jp/files/pdf/iwp2012/iwp2012-ch05-02-p206.pdf

81 A technology or service that simultaneously displays information distribution via the Internet and television broadcasting on the same television screen.

82 See footnote 56 above.

83 MIC, "Results of the 2014 Telecommunications Usage Trends Survey," Chart 5-2 https://www.soumu.go.jp/johotsusintokei/statistics/data/150717_1.pdf

84 Impress R&D Corporation, "Internet White Paper 2021," Part 1-1, "TV and Internet Movements in 2020. https://iwparchives.jp/files/pdf/iwp2021/iwp2021-ch01-01-p022.pdf

85 Government statistics portal site (e-Stat), "2022 Telecommunications Usage Trends Survey of Households" (Japanese only) https://www.e-stat.go.jp/stat-search/file-download?statInfId=000031951230&fileKind=0 Government statistics portal site (e-Stat), "2022 Telecommunications Usage Trends Survey of Households"

access on TVs, but also the rate of use of VOD on TVs is considered to have reached a certain level. Given these circumstances, it is thought that CTV began to widely penetrate the home and became popular around 2020.

Looking at the penetration of such TV in terms of smart TVs and streaming devices, firstly, in the case of smart TVs, for example, according to an INTAGE, Inc. report[86], the smart TV penetration rate (in terms of people) was 18.0% as of 2016. By 2021, this figure rose to 32.7%, meaning that approximately one in three people had access to a smart TV, and usage is growing.

Note that although the market study is not limited to Japan, according to Infiniti Research Limited's "Smart TV Market by Distribution Channel, Type, and Geography - Forecast and Analysis 2023-2027" the market for smart TVs is expected to continue to grow (expanding approximately 1.4-fold from 2017 ($66.5 billion) to 2021 ($93.9 billion)) worldwide, including in the Asia-Pacific region.

As for streaming devices, according to Media Fixed Point Survey 2023 conducted by Hakuhodo DY Media Partners, their ownership rate has increased from 8.9% in 2016 to 33.7% in 2023, as shown in Chart 3-1. As shown in Chart 3-2, according to the consumer questionnaire, 44.0% of CTV users use a Chromecast, Amazon Fire TV Stick/Fire TV Cube, or Apple TV streaming device.

(Japanese only)
https://www.e-stat.go.jp/stat-search/file-download?statInfId=000040057120&fileKind=4

86 See footnote 7 above.

Chart 3-1 Time-Series Trends in TV Internet Access Rates and Ownership of Related Equipment[87]

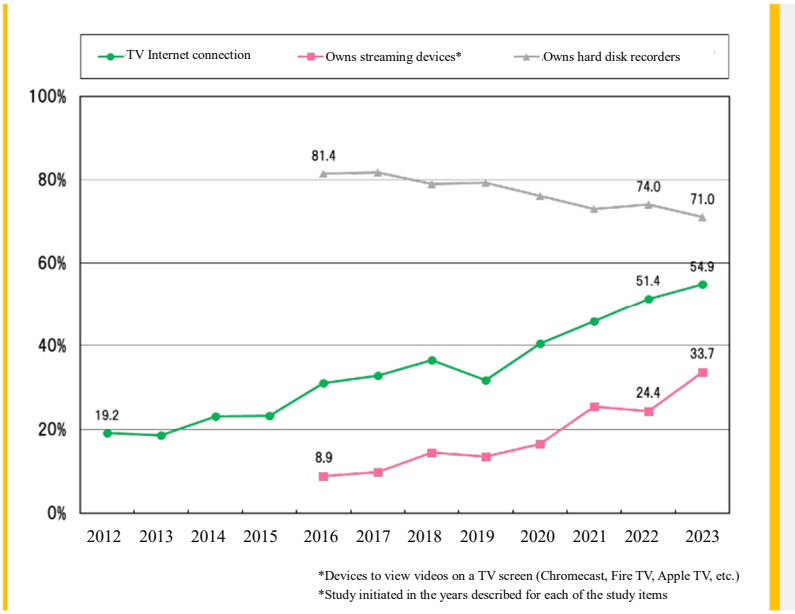
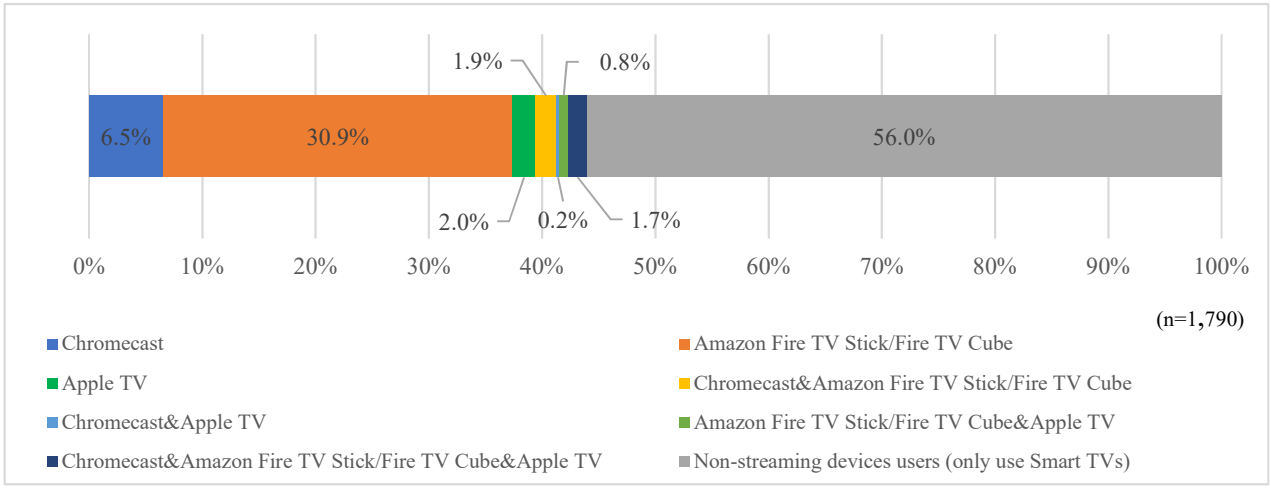


Chart 3-2 Streaming Device Usage as a Percentage of CTV Users[88]



In light of the circumstances leading to the spread of CTVs described above and the large demand for the products of Japanese TV manufacturers (see Chart 3-3), the spread of CTVs in Japan is, as shown in Charts 2-4 and 2-5 above, increasing mainly for smart TVs with a TV OS developed by domestic manufacturers or provided by TV OS providers, and for streaming devices, rather than for smart TVs sold by foreign manufacturers.

87 See footnote 8 above.
88 Users using a smart TV or streaming device were extracted from the consumer questionnaire respondents, and those who use a streaming device were categorized and counted in terms of type of device used.

Given this state of the smart TV market, Google has gained a share of the TV OS market by providing its TV OS to SONY, SHARP, and TVS REGZA (formerly Toshiba) (some products of Toshiba) (See Chart 3-3), which have a relatively large share of the TV OS market. As for streaming devices, according to the consumer questionnaire, Amazon, which supplies relatively inexpensive products, holds the majority of the market share (Chart 3-4), as shown in Chart 5-2 below, because consumers most often consider price when selecting a streaming device. Therefore, as shown in (2) below, the market share of Amazon/Google's TV OS is seen to be relatively larger than that of foreign countries.

Chart 3-3 TV Manufacturer Share in Japan[89]

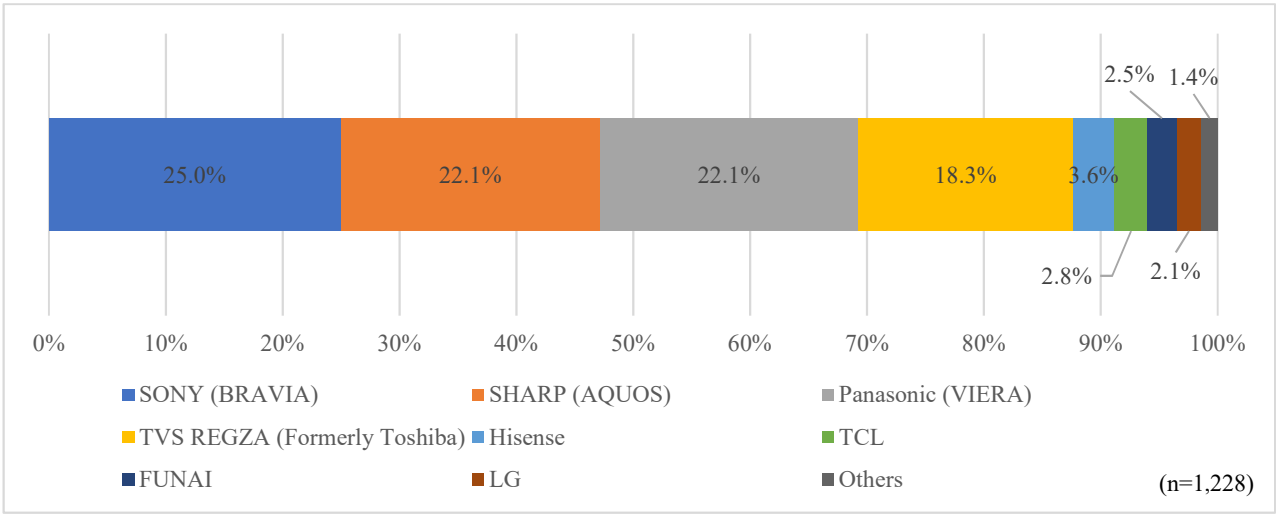
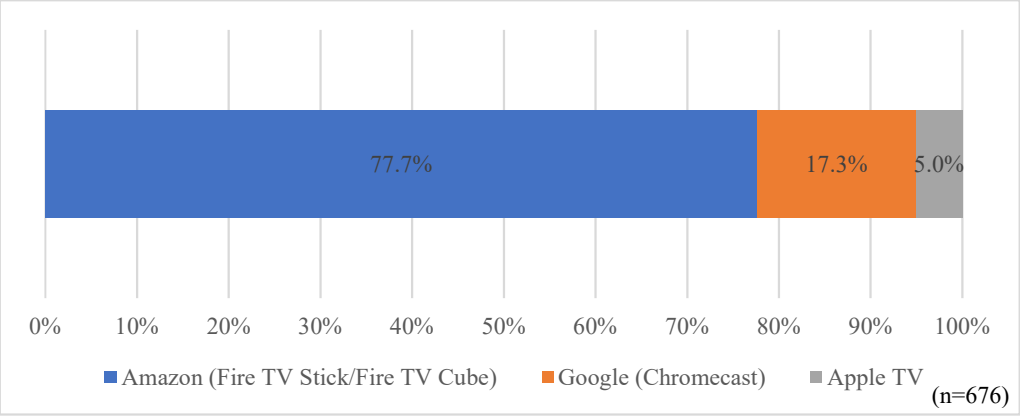


Chart 3-4 Streaming Device Manufacturer Share in Japan[90]

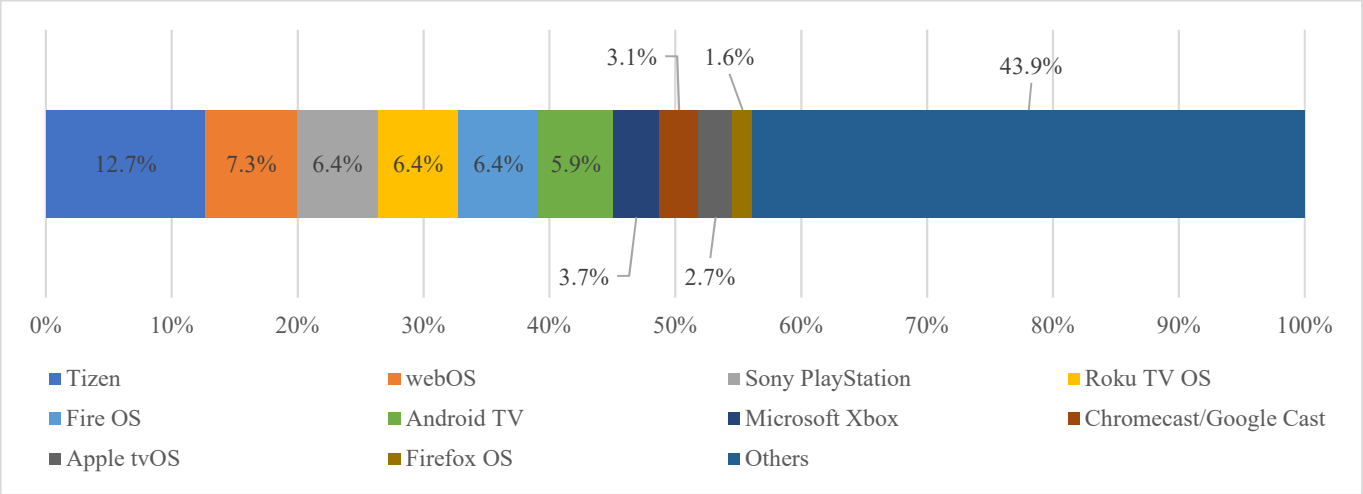


89 Data collected from 2,000 CTV owners who use video streaming services on their CTVs.
90 Usage rates for each streaming device were calculated only for users of streaming devices provided by the major IT providers (Amazon, Google, and Apple), which are the main devices in Chart 2-7 above.

(2) Market Share for TV OS

According to Statista[91], in terms of the market share for TV OS worldwide, as shown in Chart 3-5, Tizen accounts for 12.7% of the market, followed by webOS (7.3%), Sony PlayStation (6.4%), Roku TV OS (6.4%), Fire OS (6.4%), and Android TV (5.9%). Of these, Tizen and Roku TV OS are TV OS that are not included in those products sold in Japan.

Chart 3-5 Global Market Share for TV OS in 2020



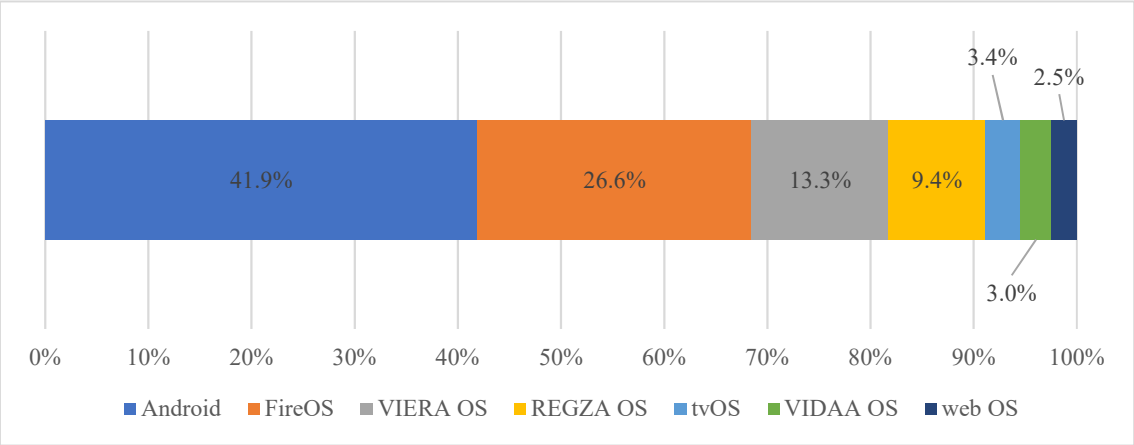
On the other hand, based on the number of units shipped in 2022, the top two companies, Fire OS (40-50%) and Android (ATV/GTV) (20-30%), account for 60-80% of the total market of the Japanese OS market share for TVs, as shown in Table 3-6. Regarding the use of TV OS among consumers, according to the consumer questionnaire, the most used TV OS is Android (ATV/GTV) (41.9%), followed by Fire OS (26.6%), as shown in Chart 3-7. Thus, for the Japanese TV OS market, unlike the global TV OS market, Amazon and Google have the majority of the market share.

91 Statista "Smart TV streaming device market share worldwide as of 2020, by platform" (March 2021) https://www.statista.com/statistics/1171132/global-connected-tv-devices-streaming-market-share-by-platform/
In addition to TV OS, this data also includes OS installed in other devices that fall under the category of other external devices.

Chart 3-6 Japanese Market Share of TV OS Based on Reports from Businesses[92]

TV OS name	Market share
Fire OS	40-50%
Android (ATV/GTV)	20-30%
Company A OS	10-20%
Company B OS	5-10%
Other	5-10%
total amount	100%

Chart 3-7 Usage of TV OS based on consumer questionnaire



When looking at the market share by manufacturer for each type of device based on the consumer questionnaire, for smart TVs, as shown in the 2.1(1)(a) above, smart TV manufacturers selling in Japan include SONY, TCL, SHARP, Hisense, TVS REGZA, Funai Electric, Panasonic, and LG, but as shown in Chart 3-3 above, Japanese TV manufacturers such as SONY, SHARP, Panasonic, and TVS REGZA each hold around 20% of the market share, with the top four companies accounting for approximately 80% (87.5%) of the market. When it comes to streaming devices, according to the consumer questionnaire, the top two companies (Amazon and Google) account for about 90% (95.0%) of the market share, as indicated in Chart 3-4 above.

2 Video on Demand Service and Sharing Services

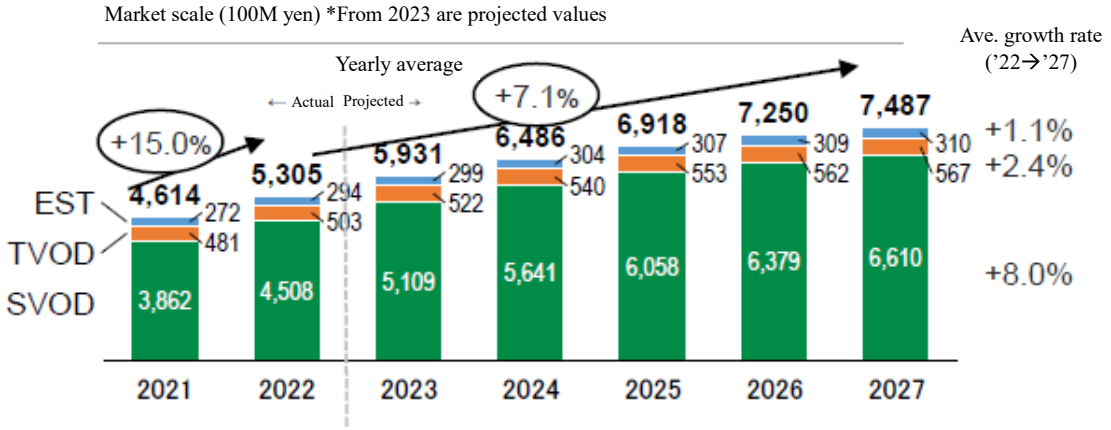
(1) Expansion of Video on demand and Sharing Services

We shall look at the use of VOD and video sharing services respectively, and first consider

92 Calculated by the JFTC based on reports from businesses in this study regarding the number of units shipped in 2022. However, for FUNAI smart TVs and Android within Fire OS, the calculation is based on the number of activations.

the use of VOD. According to GEM Partners User Analysis Report[93], the annual usage rate of VOD (number in parentheses indicates change from the previous survey) is 37.8% (+2.6pt) for SVOD, 7.8% (+0.2 pt) for TVOD, 6.2% (+0.2 pt) for EST, and 58.7% (+1.3 pt) for AVOD, all of which showed an increase from the previous year for all forms of delivery. There was no significant difference in average viewing time between paid and free services, with both services being watched for about 5-6 hours per week. The market size of paid VOD is also expanding year by year. According to the "Five-Year Forecast for Video-on-Demand (VOD) Market (2023-2027) Report" by GEM Partners, Inc. as shown in Chart 3-8, the market size of the paid VOD market in 2022[94] is 530.5 billion yen (+15.0% YoY), of which SVOD accounts for 450.8 billion yen (85.0%), TVOD 50.3 billion yen (9.5%), and EST 29.4 billion yen (5.5%). In the base scenario, the paid VOD market is expected to expand at an annual rate of 7.1% from 2022 onward, reaching 748.7 billion yen by 2027. In addition, the "VOD Business Research Report 2022" ("VOD Business Research Report") by Impress Research Institute, Inc., as shown in Chart 3-9, indicates that the market size of VOD, including YouTube, has been expanding every year since 2017.

Chart 3-8 Market Size of Paid VOD Market in 2022[95]

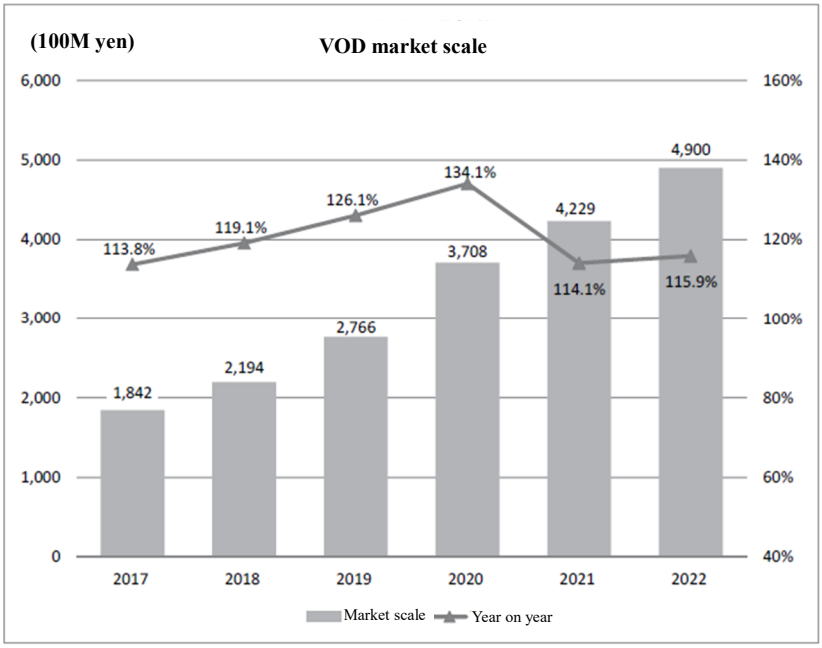


93 GEM Partners User Analysis Report, p. 45
https://gem-standard.com/

94 For the purposes of this study, the total amount paid by consumers to VOD providers, regardless of the type of contract, is defined as the market size.

95 GEM Partners Corporation, "Video on Demand (VOD) Market5-Year Forecast (2023-2027) Report", p. 2.
https://gem-standard.com/

Chart 3-9 Size of VOD Market from 2017



In interviews with businesses about the future outlook for VOD, many of them expressed the view that:

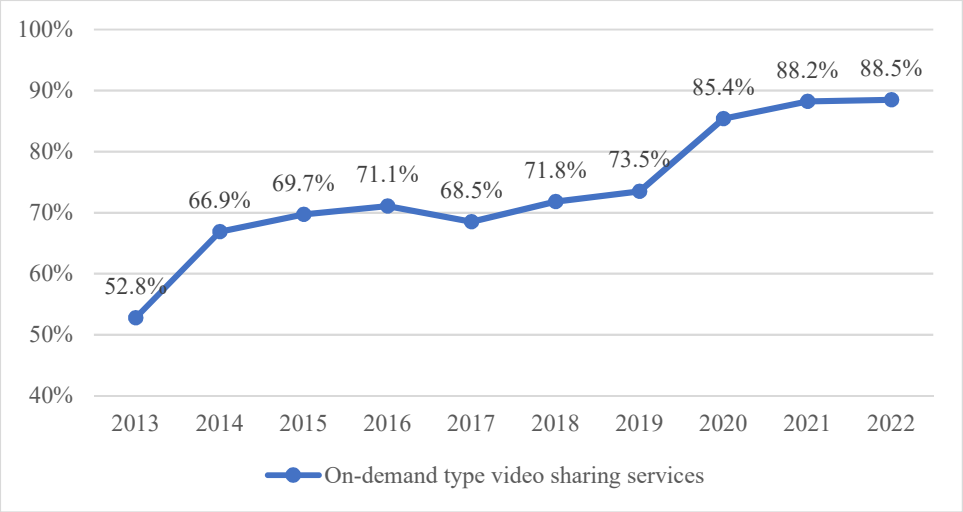
- The VOD market has reached a plateau due to consolidation among VOD providers and the situation where some service providers are terminating their services. There were also businesses that claimed:
- The VOD market continues to grow and is far from mature.
- Where demand for VOD is increasing due to the ongoing shift away from TVs, the lifestyle of enjoying VOD on TV screens has become widespread in the nesting lifestyle prevalent during the COVID-19 pandemic, and it is anticipated that demand for this type of enjoyment will continue in the future.
- As VOD becoming a basic function of TVs, the COVID-19 pandemic led to a further increase in demand for these services, and it is expected that the lifestyle of watching favorite content at preferred times will become mainstream in the future, where users can search for content that matches their tastes and preferences.

Next, looking at video sharing services, according to a GEM Partners user analysis report,[96] the usage rate (YoY) for YouTube was 3.6% (+1.0pt) for YouTube Premium, 3.4% (+0.7pt) for TVOD, 2.6% (+0.4pt) for EST and 48.5% (+1.2pt) for AVOD (regular YouTube), all of which saw increases compared to the previous year. According to the "Study Report on

96 GEM Partners User Analysis Report pp. 112, 119, 123, 127
https://gem-standard.com/

Information and Communications Media Usage Time and Information Behavior in FY2022" (June 2023)[97] by the Information and Communications Policy Research Institute of the MIC, the usage rate of on-demand video sharing services such as YouTube[98], shown in Chart 3-10 has been increasing.

Chart 3-10 (Usage rate of video sharing services)



As mentioned above, private reports and government surveys on Video on demand and sharing services to date indicate that demand has been gradually increasing since at least 2017, and even now, as we enter the post-COVID period, there are still many consumers who spend time watching video on-demand and sharing services.

(2) Actual Usage of Video on Demand and Sharing Services

As for the actual usage of the respective video on demand and sharing service, according to the VOD Business Study Report, as shown in Chart 3-11, the ratio of users who watch more than five hours per week was 51.3% for video sharing services, 43.7% for paid VOD, and 33.9% for free VOD. The overall viewing time was longest for video sharing services, paid VOD, and free VOD, in that order. As shown in Chart 3-12, the percentage of users who view videos at least once a week is 93.1% for video sharing services, 82.5% for paid VOD, and 76.1% for free VOD. Similarly, according to the consumer questionnaire, as shown in Chart 3-13, the ratio of users who watch at least once a week is 91.6% for video sharing services (YouTube (Premium + no purchase) and Twitch), 77.5% for paid VOD, and 64.9% for free VOD.

97 See footnote 3 above.
98 Refers to video sharing services such as YouTube, niconico, etc.

Chart 3-11 Average Duration of Video Content Viewing in the VOD Business Study Report

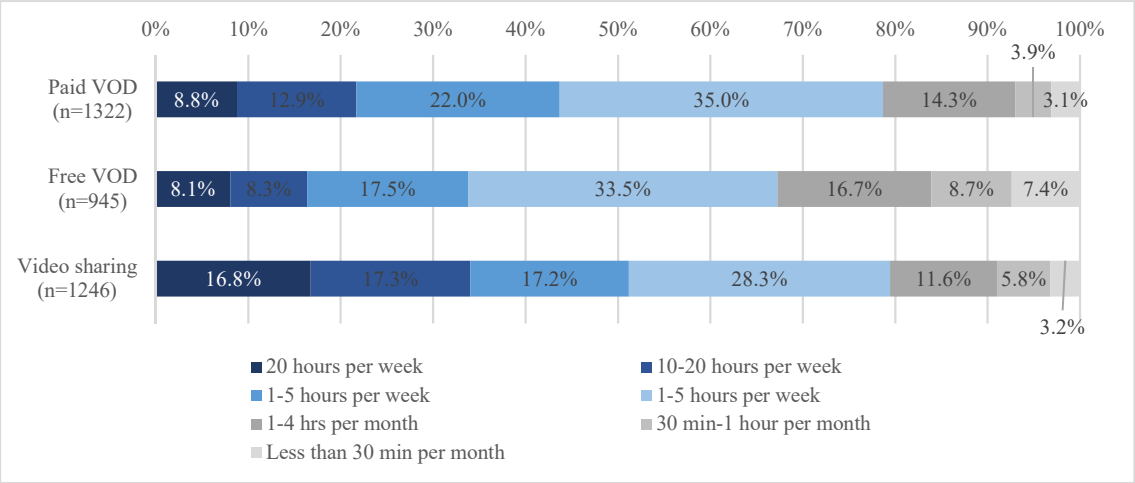


Chart 3-12 Average Frequency of Video Content Viewing in the VOD Business Study Report

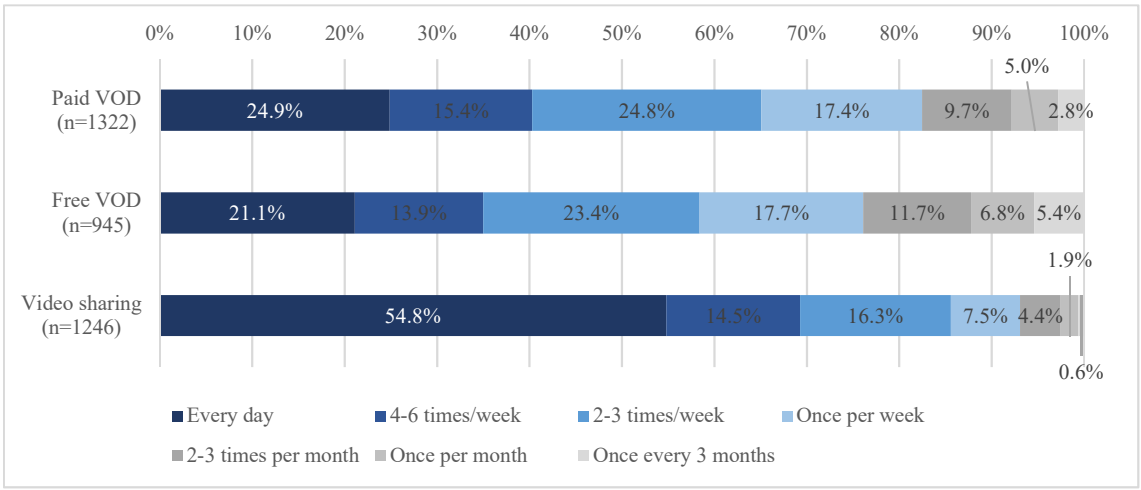
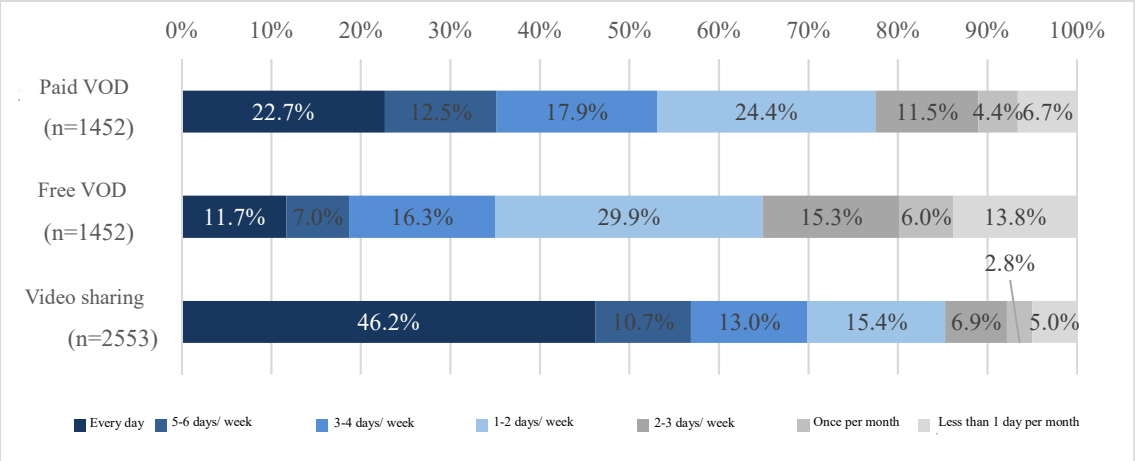


Chart 3-13 Average Frequency of Video Content Viewing Based on Consumer questionnaire



According to the above results, video sharing services had the highest results in terms of both viewing time and viewing frequency, with about half of the respondents selecting "Everyday" as their frequency of video viewing on video sharing services, and the longest time in terms of viewing time, suggesting that video sharing services are the most used. This may be due to the fact that video sharing services offer a relatively large amount of video content with short viewing time per viewing, which can be viewed on smartphones and other devices regardless of location. In terms of VOD, there is no significant difference in the viewing time and frequency of viewing video content between paid VOD and free VOD, although the former (paid VOD) tends to be more frequent and more expensive than the latter.

(3) Market share of VOD

Next, the market share of each VOD (SVOD, TVOD, EST, and AVOD) in Japan is calculated on a sales basis[99] based on business questionnaires and other data. As shown below, Netflix, Amazon Prime Video, and U-NEXT have a relatively large presence in the field of VOD in Japan.

As described in 2.2 (3) above, video sharing services such as YouTube are not included in such shares because they do not fall under the category of VOD.

(a) SVOD

As shown in Chart 3-14, Netflix holds a 20-30% market share, followed by Amazon Prime Video and U-NEXT (10-20% each), DAZN and Hulu (5-10% each).[100]

99 The information is based on sales for the most recent fiscal year as of May 2023 or other information for which a response was received. The share of AVOD was calculated for each service based on advertising revenues and other factors, based on reports from operators.

100 Based on business surveys, etc., the share of VOD (SVOD) in terms of the number of subscribers (apart from the revenue base) (including the possibility that the same person subscribes to multiple VOD) Amazon Prime Video accounts for 30-40%, followed by Netflix (10-20%), U-NEXT, Disney+, and Hulu

Chart 3-14 Share of VOD (SVOD[101]) in terms of revenue

Service name	Market share
Netflix	20-30%
Amazon Prime Video	10-20%
U-NEXT	10-20%
DAZN	5-10%
Hulu	5-10%
Other	20-30%
Total	100%

(b) TVOD

As shown in Chart 3-15, ABEMA, Amazon Prime Video, and U-NEXT each hold 20-30% of the market share, followed by DMM and Hulu (5-10% each).

Chart 3-15 Share of VOD (TVOD) in terms of revenue

Service name	Market share
ABEMA	20-30%
Amazon Prime Video	20-30%
U-NEXT	20-30%
DMM	5-10%
Hulu	5-10%
Other	10-20%
Total	100%

(c) EST

As shown in Chart 3-16, Amazon Prime Video holds a 40-50% market share, followed by DMM (20-30%), J:COM, YouTube Movies, etc.[102] (5-10% each).

(5-10% each) .

101 As for advertising-supported SVOD (see2(1) above), it is regarded as a type of SVOD, so the sales amount and advertising revenue for this service are included when calculating the share of SVOD.

102 Total of YouTube Movies, and Google TV (including GooglePlay Movies & TV)

Chart 3-16 Share of VOD (EST) by Revenue

Service name	Market share
Amazon Prime Video	40-50%
DMM	20-30%
J:COM	5-10%
YouTube Movies, etc.	5-10%
Other	5-10%
Total	100%

(d) AVOD

Calculating the share of advertising revenue and other[103] in AVOD, ABEMA holds a 70-80% market share, followed by TVer (20-30%), as shown in Chart 3-17 below. However, as described in 2.2(3) above, TVer also recognizes advertising spaces that are not covered by advertising sales, so the results based on advertising revenue and viewing time shown in footnote 104 are considered to be different.[104]

Chart 3-17 Share of VOD (AVOD) Based on Advertising Revenue, etc.

Service name	Market share
ABEMA	70-80%
TVer	20-30%
Other	0-5%
Total	100%

(e) Overall VOD

In (a) through (d) above, the market share of each VOD was calculated based on sales or advertising revenue for each distribution type of SVOD, TVOD, EST, and AVOD, etc. When all of these are added together for all VOD, the market share of each VOD is calculated as follows. As shown in Chart 3-18, Netflix has the highest market share at 20-30%, followed by Amazon Prime Video and U-NEXT (10-20% each), and DAZN (5-10%).

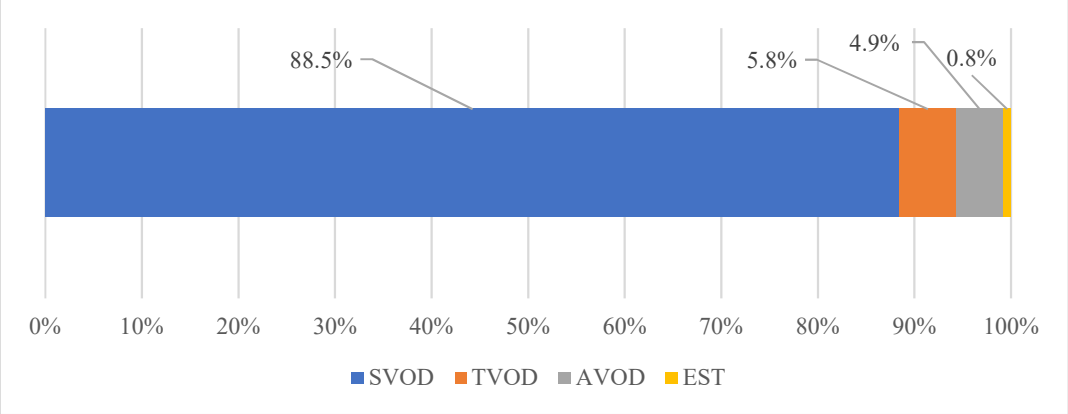
103 Excludes advertising revenues and other revenues managed by content providers.
104 Based on a survey of operators, the share of VOD (AVOD) in terms of viewing time (apart from advertising revenue, etc.) shows that TVer accounts for 80-90%, followed by ABEMA (10-20%).

Chart 3-18 Share of all VOD based on sales

Service name	Market share
Netflix	20-30%
Amazon Prime Video	10-20%
U-NEXT	10-20%
DAZN	5-10%
Other	30-40%
Total	100%

On the other hand, when the market shares of SVOD, TVOD, EST, and AVOD are calculated by delivery type (rather than by each VOD), as shown in Chart 3-19 below, SVOD accounts for the majority of the market share at 88.5%, followed by TVOD (5.8%), AVOD (4.9%), and EST (0.8%).

Chart 3-19 Share by Distribution Type

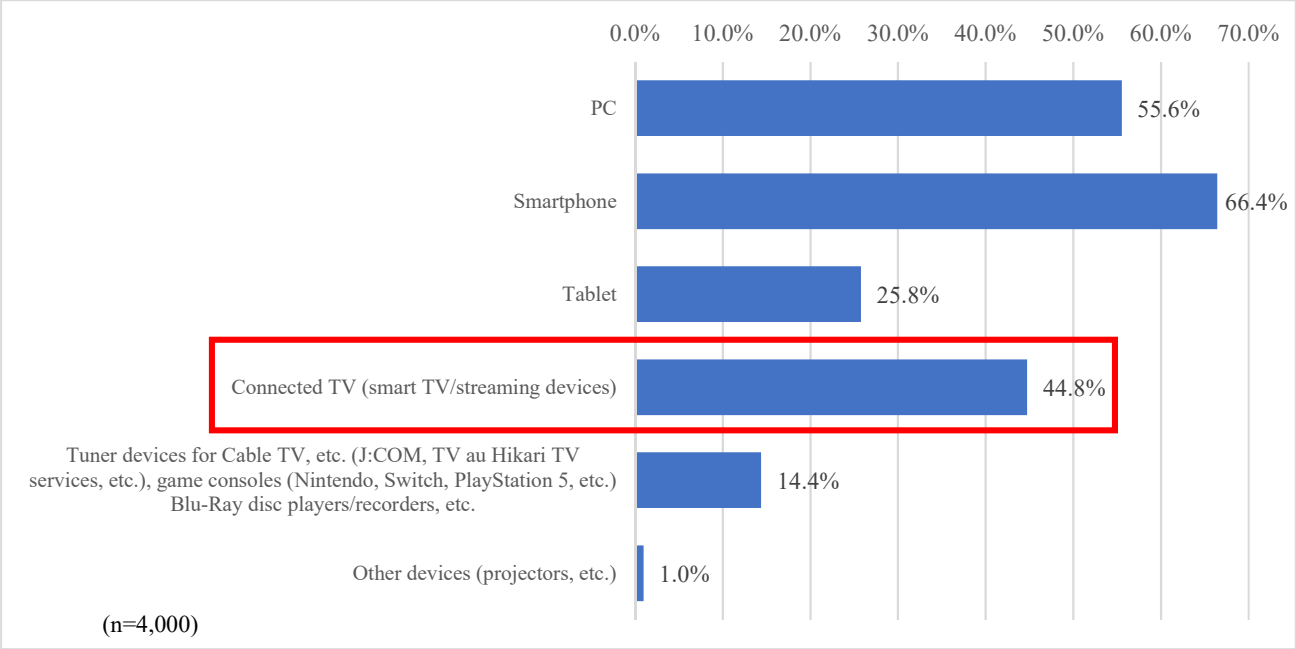


3 Positioning of CTV-Related Sectors for Consumers

(1) Use of VOD via CTV

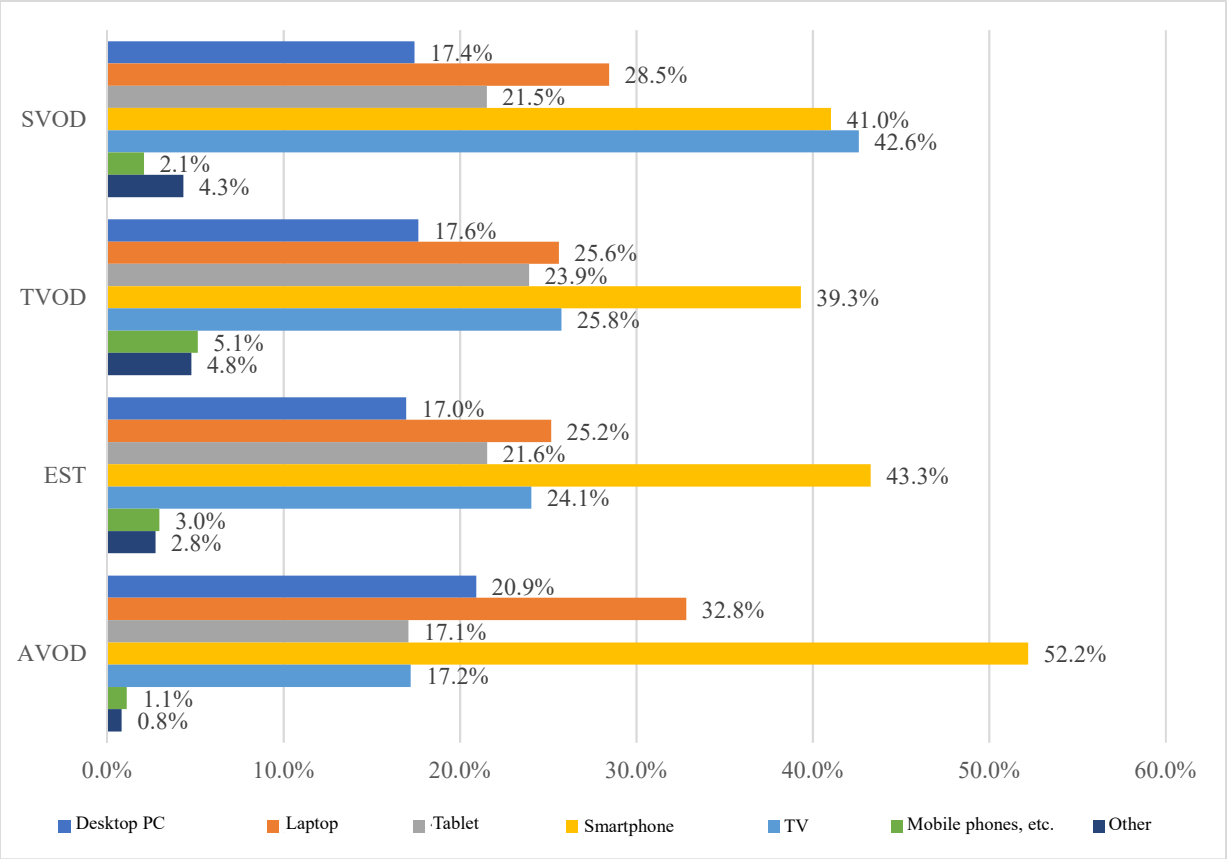
According to the consumer questionnaire, as shown in Chart 3-20, 66.4% of all respondents use smartphones, 55.6% use PCs, and 44.8% use CTVs (smart TVs / streaming devices) to watch VOD. As with smartphones and PCs, CTVs are used by about half of all VOD users. This suggests that CTVs have become a common device for consumers to use to view VOD.

Chart 3-20 Devices used to view VOD (multiple responses allowed)



In this regard, according to the GEM Partners User Analysis Report, as shown in Chart 3-21, TVs are selected to a certain extent as the device used to view VOD, occupying the largest market size among all VOD. Of these, SVOD, which has the largest market size among all VOD, has surpassed smartphones in terms of the percentage of viewers watching on TVs. In addition to the high TV usage rates for WOWOW On Demand (54.2%) and J:COM On Demand (54.8%), which are VOD originally offered to TV users, the percentage of respondents who watch Disney+ (52.5%) and Amazon Prime Video (49.8%) , on TV was around 50%.

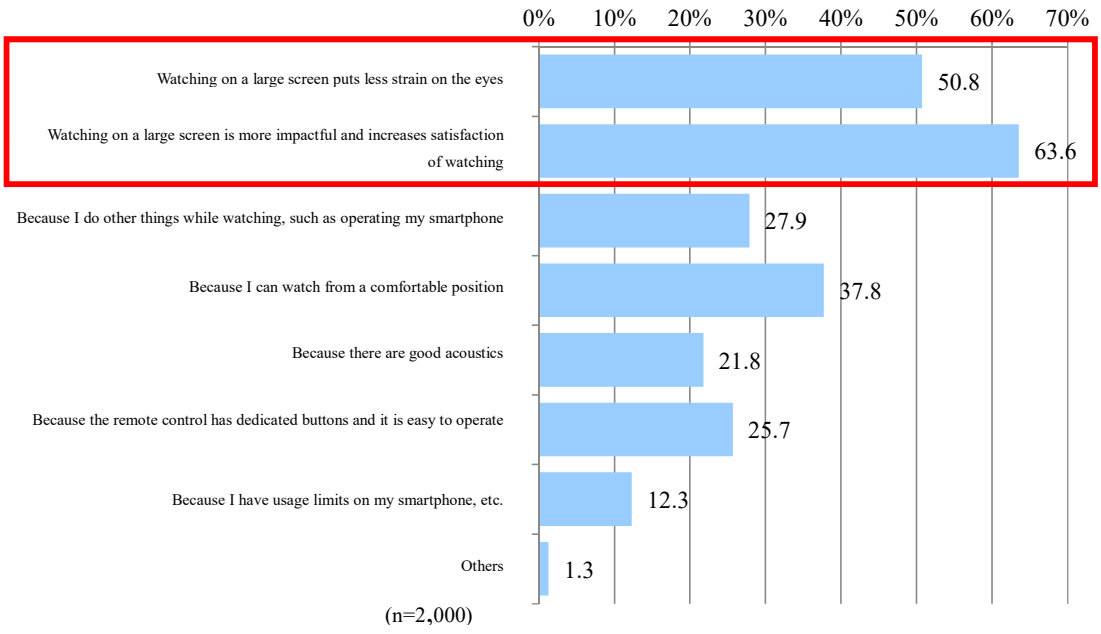
Chart 3-21 Actual use of devices for viewing VOD[105]



As shown above, many consumers use TVs to watch VOD. As for the reasons for this, according to the consumer questionnaire, as shown in Chart 3-22, the most common response was "Viewing on a large screen is more impactful and more satisfying" (63.6%). This was followed by "Viewing on a large screen is easier on the eyes" (50.8%), and "I can watch it from a comfortable position" (37.8%), "I can watch while doing other things such as operating a smartphone" (27.9%), and "The remote control has specialized buttons and is easy to operate" (25.7%).

105 Prepared by the JFTC based on GEM Partners User Analysis Report, pp. 137, 146, 155, 162. https://gem-standard.com/

Chart 3-22 Reasons for watching VOD through TV screens (multiple responses allowed)



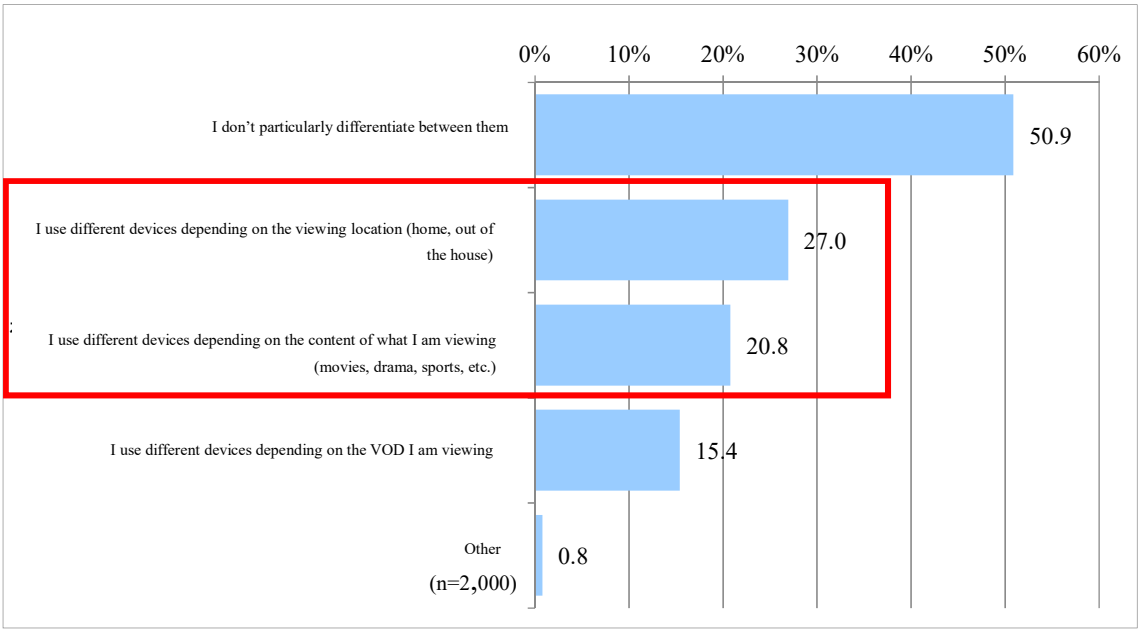
(2) Use of CTVs and Other Devices

In addition to CTVs, PCs, tablets, and smartphones, as well as other external devices exist as devices that can be used to view VOD. As shown in Chart 3-20 above, CTVs (smart TVs + streaming devices) as well as smartphones, PCs, and other devices are used to view VOD.

As shown in Chart 3-23 below, about half of the consumers who use both types of devices use different devices depending on "viewing location (home, outside the home)" (27.0%) and "content to watch (movies, dramas, sports, etc.)" (20.8%).[106]

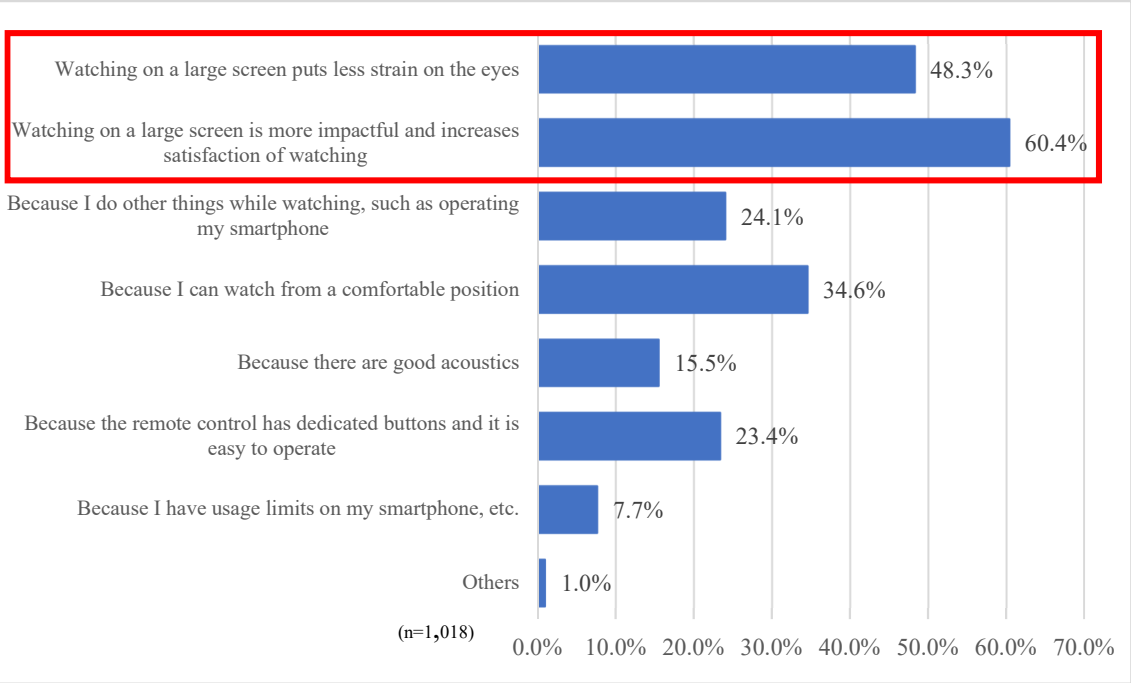
106 For example, users who want to view content clearly on a large screen often use CTV at home, while users who want to view content while out of the house use a smartphone or other easily portable device. These perspectives could be influenced by the type of content, such as movies, dramas, animation, and sports, as well as the length of the content.

Chart 3-23 Status of using different devices for VOD (multiple responses allowed)



In the consumer survey, when asked about the devices used for watching video streaming services among the consumers who answered "I don't particularly differentiate between them" (50.9%), the reasons for watching video content on TV were examined. As shown in Chart 3-24, the most common response was "Watching on a large screen is more impactful and increases satisfaction of watching" (60.4%), followed by "Watching on a large screen puts less strain on the eyes" (48.3%). These are features that are generally not found in devices other than TVs. Therefore, it is suggested that even among consumers who responded that they "I don't particularly differentiate between them," there are a certain number who potentially use VOD on their TVs, being aware that TVs are designed for stationary viewing.

Chart 3-24 Reasons for watching video content on TV (multiple responses allowed)
(Extracted from responses of those who responded, "I don't use any device in particular.")



Based on the above results, it can be assumed that there is a certain degree of need to use VOD on TVs with large screens, and that there is a certain degree of differentiation between TVs and other devices, such as the preference for viewing on TVs over smartphones, tablets, etc., depending on where the VOD is viewed and the content to be viewed.

4. Business Transactions in the CTV Related Sector

1 Overview of Business Transactions in the CTV-Related Sector

(1) Major Players in the CTV-Related Sector

The major players in the CTV-related sector in Japan were described in the section 2 above and can be summarized again as follows.

① TV OS providers: This refers to the TV OS providers, and the major providers are as shown in the 2.1(2) above and Chart 3-6 above. Among them, the top two companies, Amazon and Google, account for 60-80% of the total market share.

② Device manufacturers: This refers to businesses manufacturing and selling CTV devices, and, as shown in 2.(1)(a) and (b) and Charts 2-4 and 2-5 above, there are about ten major companies that provide streaming devices in addition to TV manufacturers, including Amazon, Google, and Apple.

③ VOD providers: This refers to businesses that operate VOD platforms and enable consumers to view video content provided by content providers. There are about 10 major video service providers, including Amazon and Netflix, as shown in the 2(2) and Chart 2-12 above.

④ Content providers: These include production companies of movies, dramas, and animations, as well as TV broadcasters. Numerous items of video content are available, and there are many content providers.

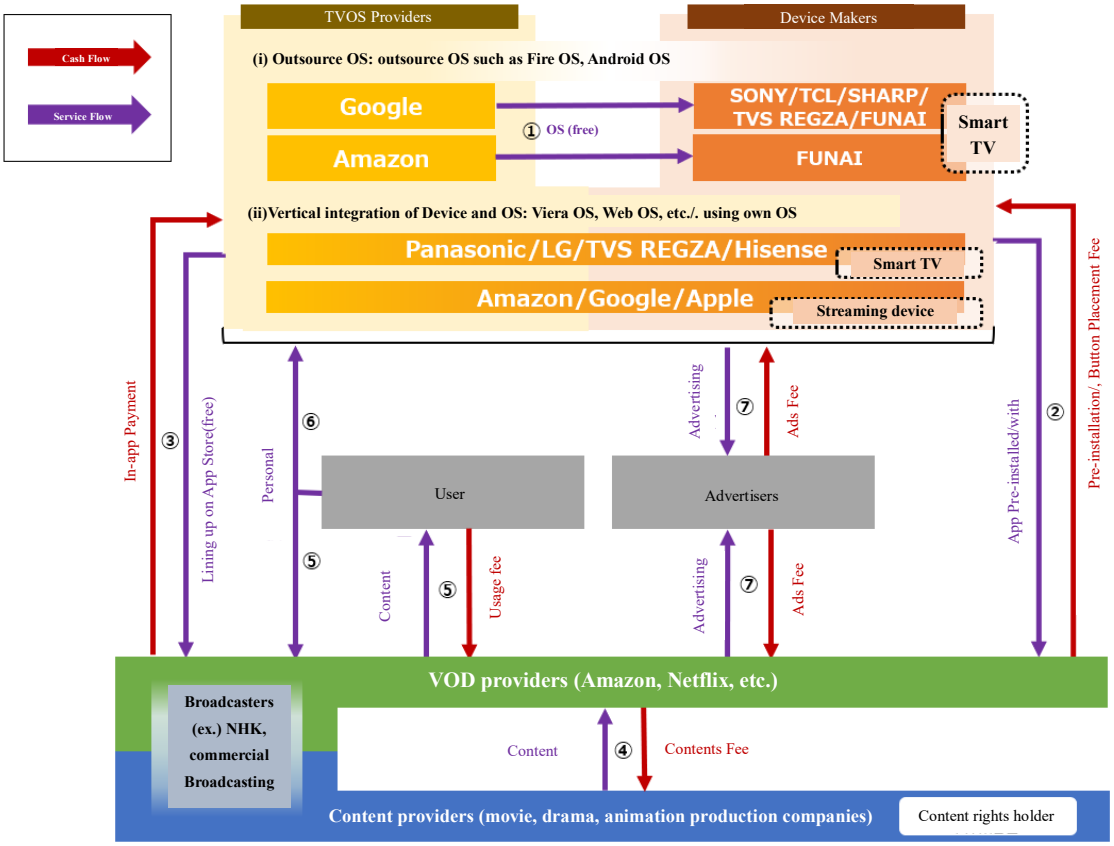
⑤ User: This refers to a person who uses a CTV to view video content on a VOD.

⑥ Advertiser: A person who submits advertisements in an advertising space provided by a TV OS provider, device manufacturer, or VOD provider.

(2) Overall View of Business Relationships

Chart 4-1 is a general view showing the major business relationships among the players indicated in (1) above with a focus on users viewing video content using CTVs.

Chart 4-1 Overview of the Main Trades in CTV Related Sector



(3) Major Business Transactions in CTV Related Sector

As shown in Chart 4-1 above, an overview of major business transactions in the CTV related sector can be summarized under seven major categories as shown in Chart 4-2 below (transactions corresponding to each number are hereinafter referred to as "transaction ①", etc.).

Chart 4.2 List of Major Business Transactions in CTV Related Sector

No.	Party to the transaction	Details of Business Transaction (Summary)
①	TV OS provider Device makers	"License transactions (usage permissions) for TV OS necessary for the installation and use of TV OS on CTV devices (including agreements required to use related apps provided by TV OS providers, such as VOD App, TV app stores, or apps related to CTVs. The same applies hereinafter.)"
②	Device makers VOD providers	Transactions necessary for the use of VOD App on the CTV device (including agreements relating to the placement of buttons for the activation of such app on the remote control of the CTV device).
③	TV OS providers VOD providers	To distribute VOD App in TV app stores provided by TV OS providers, and to provide VOD services to users (including the use of an in-app billing systems, etc.) Transactions to provide VOD to users (including use of in-app billing systems, etc.)
④	VOD providers Content provider	Transactions required to distribute video content on VOD platforms (license-type distribution agreements/provider usage-type distribution agreements)
⑤	VOD providers Users	Transactions necessary for the use of the video on-demand service (including the provision of the user's personal information and other data in connection with such use).
⑥	TV OS provider Users	Transactions related to the provision of users' personal information and other data in connection with the use of a TV OS.
⑦	TV OS providers, etc. Advertiser	Transactions related to the placement of advertisements for the distribution of advertisements to CTV users.

2 Business Transactions Between Device Manufacturers and TV OS Providers (Transaction ①)

In order to view video content on a TV via CTV, it is common to use VOD app provided by VOD providers.[107] To launch such apps and view video content, TV OS is required.

For device manufacturers who develop their own TV OS, they can use the TV OS they developed in their own devices, for example, based on an open source OS, etc. On the other hand, if a company does not develop its own TV OS, it must obtain a TV OS from a TV OS provider and install a TV OS and related apps on its devices by concluding a TV OS license contract.

The following is a summary of the business relationship between device manufacturers and

107 It is possible to sign in to a VOD via a browser and view video content in addition to using a VOD app. However, since searching for and accessing the content of the VOD using a remote control on the CTV requires complicated operations, the most common viewing route is through the VOD app.

the TV OS providers, particularly Amazon and Google, which provide their TV OS to other companies in Japan.

[Amazon]

- As described previously in 2.1(2), the Fire OS is Amazon's proprietary operating system based on the open-source Android platform, and is used in smart TVs and streaming devices. Amazon has a license contract with TV manufacturers[108] for the use of Fire OS.
- Under the Fire OS license contract, Amazon grants TV manufacturers a license to use the user interface and other features branded as "Fire TV," Fire TV-related trademarks, and other Amazon apps[109], available on the Amazon Appstore as well as various licenses to provide the Fire TV experience, including the use of third-party apps. Under such a license agreement, the TV manufacturer may provide the Fire TV experience, including a home screen pre-installed with the company's apps, such as Amazon Prime Video, on such TVs.

[Google]

- Android, developed by Google and used in a wide range of devices including TVs, is an open-source OS and is available free of charge under the Apache 2.0 license agreement. Android code is used by Google and third parties. Google's CTVs (ATV and GTV) are built on Android.
- Google has entered into license agreements with desired device manufacturers for the use of ATV, GTV, or Android-related trademarks and various other apps[110]. Specifically, the license contract for ATV is the "Android TV App Distribution Agreement" (TADA) and the license contract for GTV is the "Google TV Distribution Agreement" (GTVDA), Both are licensed free of charge (device manufacturers that manufacture ATV or GTV under the TADA or GTVDA are hereinafter referred to as "OEMs" (Original Equipment Manufacturers)). Since these apps run on Android, it is a prerequisite that Android is installed on the CTV device when concluding TADA and GTVDA.
- The use of Android and the conclusion of TADA or GTVDA are separate and independent, and it is optional whether or not to conclude TADA or GTVDA.

3 Business Transactions Between Device Manufacturers and VOD Providers [111]

108 Currently, in Japan, Fire OS is licensed to Yamada Denki K.K. and Panasonic.
109 This includes the Amazon Appstore and Amazon Prime Video.
110 This includes Google Play and YouTube.
111 In addition to the business relationships described in the main body of the report, there may also be agreements between device manufacturers and VOD providers regarding the payment of a fixed fee or a fee calculated by multiplying a certain rate by the number of apps for a new VOD on the VOD app installed on the CTV device, according to the details agreed upon.

(Transaction ②)

As described in 2 above, VOD App provided by VOD providers are commonly used to view video content on TVs via CTVs.

There are two ways of enabling the use of VOD App on CTVs[112]: ① the device manufacturer installs the VOD app when the CTV is shipped (pre-installation), or ② the user downloads and installs the VOD app from the app store for TVs (via the app store for TVs)[113]. In the case of method ①, a transaction for pre-installation of the VOD app is required between the device manufacturer and the VOD provider (see 4 below for the business relationship in the case of method ②). In the case of method ①, the VOD provider usually pays consideration to the device manufacturer to have its own VOD app installed on the CTV[114].

After a VOD app is installed on a CTV, in some cases, the placement of the app on the TV screen (i.e., where it is displayed) cannot be changed after the initial placement, whereas in other cases the user can freely customize the display order and position. Arrangements may be made between device manufacturers and VOD providers regarding the display order and position of apps at the time of pre-installation (to the extent that this does not violate the contract with the TV OS provider).

In terms of how to start up the VOD app on the CTV, there is ① the method of selecting and starting the VOD app on the home screen of the CTV and ② the method of starting the app by pressing the start button of the app if it is located on the remote control. In the case of the latter method, it is necessary to conclude a contract between the device manufacturer and the VOD provider for the installation of the corresponding button[115].

4 Business Transactions Between TV OS Providers and VOD Providers (Transaction ③)

As described in 3 above, one way to use VOD App on a CTV is for the user to download and install the app from a TV app store provided by a TV OS provider.

In order to list an app for VOD in an app store for TVs, a transaction is required between the TV OS provider that provides the app store for TVs and the VOD provider to distribute the VOD app in the app store for TVs. In addition, as a precondition for this, the VOD provider must receive the SDK[116], which is necessary for developing VOD App compatible with the relevant

112 Regarding the lineup of apps that can be installed, one device manufacturer pointed out that they are prepared from the perspectives of user benefit and competition with other companies.

113 Another method is for users to install (additional) apps in conjunction with updates to the TV OS..

114 However, in the case of VOD that are popular and appealing to consumers, device manufacturers may request that their devices be equipped with such services from the perspective of improving convenience for consumers, without consideration.

115 In terms of user convenience, method),②, which enables direct one-touch app launch, is superior to method),①, which allows users to use apps on the home screen. However, one company pointed out that the installation of a button on the TV remote control is more valuable than the pre-installation, and the price is correspondingly high.

116 Abbreviation for Software Development Kit.

TV OS, from the relevant TV OS provider.

The agreement for the transaction will specify the various arrangements required for distribution in the TV app store (such as designation of payment method, commission rates for the use of designated payment methods, and functions to be provided in the app, etc.). If the payment is made using the billing system provided by the TV OS provider, a fixed fee (usually 15-30%)[117] will be charged for said billing.

In addition, when searching for VOD and video content on CTV, contracts are also concluded to receive the video content and other data necessary for displaying search results from VOD providers and others.

The following is a summary of the relationships among TV OS providers, particularly the relationships with VOD providers Amazon and Google, which provide TV OS to other companies in Japan.

[Amazon]

- Amazon has entered into the Amazon Developer Services Agreement[118] (hereinafter referred to as "ADSA") with VOD providers. Based on the ADSA, VOD providers will be able to distribute their own VOD App on the Amazon Appstore and use payment methods provided by Amazon.
- In the case of in-app billing, in accordance with the ADSA, Amazon will pay the VOD provider 70% (80% in the case of movie and TV content subscriptions) of the reference retail price that the VOD provider provides to Amazon.
- In some cases, the conditions stipulated in the ADSA are negotiated individually with the VOD providers, and in such cases, the specific conditions vary from one VOD provider to another. When a request for modification is received, a comprehensive decision is made based on a variety of factors.
- The data pertaining to the contents displayed as search results on the home screen when searching for VOD and video content is provided by VOD providers, etc. (such as catalog vendors[119])

117 For example, in Amazon, it is published on the following website
"Amazon Developer Services Agreement"
https://developer.amazon.com/ja/support/legal/da
In addition, in Google, it is published on the following website
Changes to Google Play Service Fees (2021)."
https://support.google.com/googleplay/android-developer/answer/10632485?hl=ja
「Evolving our business model to address developer needs」
https://blog.google/intl/en-in/products/evolving-our-business-model-address-developer-needs/

118 See footnote 42 above.

119 This means an entity that provides data pertaining to content that would be displayed as search results on the home screen for a fee.

[Google]

- Google has concluded the Google Play Developer Distribution Agreement with VOD providers. Based on this agreement, VOD providers will be able to distribute their own VOD App on Google Play and use the payment methods provided by Google.
- Google's Play Media Experience Program[120] is offered to some VOD providers who desire to use it. This is a program to support VOD providers in improving the user experience and providing quality service, through deep integration of their services and apps with Google products (including, for example, being tied to the appropriate Google platform and APIs for the type of content, which has a high reputation on Google Play, and providing high-quality services on Google's platform).

5 Business Transactions Between VOD providers and Content Providers (Transaction ④)

In order for users to be able to view specific video content on a VOD via a CTV, an agreement for the distribution of said video content (hereinafter referred to as a "distribution contract") must be concluded between the VOD provider and the content provider.

The two basic types of distribution contracts are ① the form in which the content provider grants a license to the VOD provider to make the video content itself freely available to the VOD provider (hereinafter referred to as a "license-type distribution agreement") and ② a content provider receives VOD, and VOD platform managed by the VOD provider distributes the video content itself[121] (hereinafter referred to as "provider usage-type distribution contract").

VOD providers that adopt provider usage-type distribution contracts are mainly those that are linked to TV broadcasts and provide real-time distribution of TV program broadcasts and missed programs, while VOD providers other than this adopt license-based distribution contracts.

Under a license-type distribution contract, the VOD provider is free to use said video content as long as it does not violate said contract and is free to decide whether or not to place advertisements in said video content, as well as the content and quantity of such advertisements. On the other hand, in a provider usage-type distribution contract, the content provider is free to make all such decisions as long as they do not violate the contract in question.

License-type distribution contracts can be further divided into two major types depending on the method of setting the consideration for the provision of video content. ① One is called a revenue-sharing type, which is a type of contract in which the consideration is calculated by multiplying, for example, the number of user views and the unit price per view by the license fee rate, such as ●% for new works and ▲% for old works.[122] (hereinafter referred to as

120 Google "Google Play Media Experience Program" https://play.google.com/console/about/programs/mediaprogram/

121 Depending on the variation in the form of use, there may be a form in which only the place of the VOD platform is provided, or the distribution operations may be outsourced to a VOD provider.

122 Sometimes there is a minimum guaranteed license fee, called a Minimum Guarantee (MG), regardless of

"revenue-sharing type agreement"). One of the characteristics of this type of contract is that it increases the amount of revenue that can be received if the work is a big hit. ② The other type is a flat type, in which a certain licensing period is set, for example, 2, 5, or 10 years, and the video content royalty fee is uniformly fixed for that period. This type of contract (hereinafter referred to as "flat type contract") is characterized by the fact that a usage fee can be received regardless of the number of user views.

(Reference) Business Relationships with Users Providing UGC on YouTube

Video content shared on YouTube is created and posted by YouTube users themselves (this content is called User Generated Content, commonly referred to by the acronym "UGC." Users who provide UGC are hereinafter referred to as "UGC Providing Users.) In making such contributions, UGC-Providing Users are required to comply with the published terms and conditions. The UGC-Providing User may use the YouTube platform free of charge as long as he/she complies with such terms and conditions.

In addition, YouTube has the "YouTube Partner Program" to monetize UGC posted on YouTube, and UGC users who wish to monetize their UGC can participate in this program to earn advertising revenue from their own video content distributed on YouTube (hereinafter referred to as "Partners"). UGC users who wish to monetize their UGC can earn advertising revenue from their video content on YouTube by participating in this program[123]. In other words, YouTube distributes revenue to partners in exchange for displaying advertisements in their videos. Ads are inserted at the beginning, middle, or end of the video. Ads may also be displayed in short feeds (pages that display recommended short videos), etc., and partners may also receive a share of the revenue from such ads. In addition, partners can always choose whether to display advertisements for individual videos and can edit mid-roll ads (ads that appear in the middle of video content) for feature-length videos[124]. (See "(Reference) YouTube's Ad Features" in Section 8 below.)

6 Business Transactions Between Users and VOD Providers (Transaction ⑤)

In order for a user to view video content through a VOD, it is necessary for the user to conclude a contract for the use of said service with the VOD provider. The services provided by VOD

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the number of user views. In the case of TVOD, an amount equivalent to a certain percentage of the sales price, etc. may be paid each time video content is rented.

123 Certain eligibility requirements are required to participate in the YouTube Partner Program. Google , "YouTube Partner Program Overview and Eligibility." https://support.google.com/youtube/answer/72851?hl=ja

124 In addition to the advertising revenue described in the main text, there is a service (channel membership) in which viewers pay a monthly fee to support UGC-providing users. Viewers can also purchase paid digital goods directly from UGC-providing users for videos uploaded on YouTube through Super Chat, Super Stickers, and Super Thanks (a service to make their own chats, messages, etc. stand out). UGC-provided users also seek to generate revenue through these services and features.

providers differ from each other, but as described in 2.2 above, they can be broadly divided into three patterns: SVOD, TVOD/EST, and AVOD.

In addition to this, there are contracts between users and VOD providers for the collection and use of data pertaining to users' VOD App and viewing data of content, etc., based on various terms of use.

7 Business Transactions Between Users and TV OS Providers (Transaction ⑥)

The user has agreed to the various terms of use[125] published by the TV OS provider or displayed on the TV screen regarding the use of the TV OS provider's own services, etc. TV OS providers collect and use data from devices based on this[126].

8 Business Transactions Pertaining to Advertisements (Transaction ⑦)

For advertisements displayed on the CTV home screen, in video content, or on VOD platforms and other VOD, a license is concluded between the person who manages the display of such advertisements (hereinafter referred to as "media company") and the advertiser. (hereinafter referred to as the "media company") and advertisers will conclude an agreement for the placement of advertisements.

With regard to the display of advertisements on the home screen, etc., the entity (media company) that manages the display of such advertisements varies depending on where/on what on the TV screen the advertisement is displayed. These media companies include TV OS providers and device manufacturers with respect to display on CTVs. In other words, the home screen, etc. that is displayed when a CTV is started up is managed by the TV OS, while the screen[127], etc. where services specific to the device manufacturer are displayed is managed by the device manufacturer.

In addition, regarding the display of advertisements in VOD, VOD providers and content providers are listed as media companies. In other words, while the screen displayed on the VOD platform is managed by the VOD provider, the video content to be delivered is managed by the VOD provider in case said video content is licensed by the content provider, or by the content provider if the video distribution is outsourced, as described in 2.2(3) above. Examples of this

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125 Google, "Terms of Use" (June 1, 2023).
https://policies.google.com/terms
Google , "Privacy Policy," (November 15, 2023).
https://policies.google.com/privacy
Amazon, "Amazon Fire TV Series Terms of Service."
https://www.amazon.co.jp/gp/help/customer/display.html?nodeId=201267340

126 Similarly, device manufacturers may also collect and use data from users by having them agree to various terms of use displayed on the TV screen.

127 This refers to a screen that displays popular TV programs, current and recommended movies on VOD services such as Netflix and Amazon Prime Video, and campaign information as a service unique to the device manufacturer, which can all be checked at the same time.

delivered content to which the display of advertisements pertains are SVOD and AVOD. In other cases, depending on the arrangement with the VOD provider, the advertising space (or part of the advertising space) managed by the VOD provider may be provided to the TV OS provider, and in such cases, the TV OS provider is also considered a media company.

The following is a summary of advertising transactions between TV OS providers and advertisers, particularly those with Amazon and Google, which have relatively large shares of the TV OS market.

[Amazon]

- Amazon has published a policy regarding advertising on CTV[128] (the most recent policy currently published is referred to as the "New Policy"[129]). The new policy applies to developers who offer apps that include advertisements on Fire TV (ad-supported Fire TV apps). In countries where Amazon Publisher Services (APS) (a cloud service provided by Amazon to app developers to help them monetize their apps through advertising)[130] is not available on the Amazon Appstore, including Japan, developers of ad-supported Fire TV apps that are used more than 30,000 hours per month must, after being contacted by Amazon, provide Amazon with 30% of the total revenue generated from the ads in the app.[131] In countries where APS is provided, the "Amazon Publisher Services Agreement" (APSA)[132], which separately defines the contractual relationship between Amazon and APS users, applies to the use of APS.
- In addition to the add-supported Fire TV app, advertisements are also distributed on the home screen on Fire TV, and a sales contract may be concluded between Amazon and the advertiser for the advertising space displayed on the home screen on the Fire OS (see Chart 4-3).

128 Amazon "Policy on Advertising on Fire TV"
https://developer.amazon.com/ja/docs/policy-center/fire-tv-advertising.html

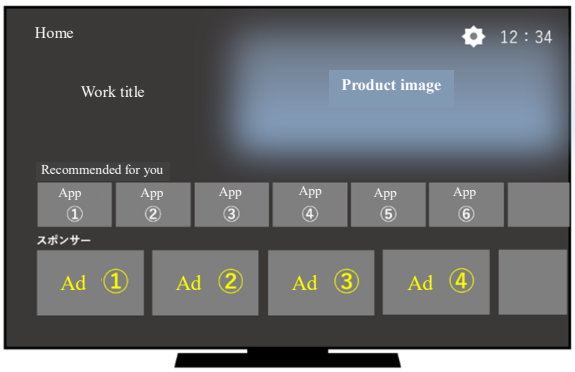
129 The new policy was published on June 7, 2023 (U.S. time).
Under the previous policy, developers of advertisement-supported Fire TV apps that are used more than 50 ,000 hours per month in the U.S. were required to provide Amazon with 30% of the total number of ad impressions in the U.S., following notification from Amazon. Although Japan was not included in the scope of this policy, it was exempted under the exclusion provisions.

130 Amazon “Amazon Publisher Services”
https://aps.amazon.com/aps/index.html

131 The time spent using the app is calculated based on the time from when the app is opened to when it is closed, according to the report.

132 Amazon "Amazon Publisher Services Agreement" (last updated January 2 ,2024)
https://ams.amazon.com/webpublisher/apsmanaged/apsagreement.html

Chart 4-3 Example of Fire TV advertising space



[Google]

- A sales contract may be concluded between Google and an advertiser for an advertising space on the home screen on a CTV (see Chart 4-4), subject to the conclusion of a service contract including the terms of use for the advertisement[133].

Chart 4-4 Example of Home Screen Advertising Space

- VOD providers are not required to purchase advertising space, but may freely choose to do so.
- The Google Advertising Service Agreement and Insertion Order[134] are available as contracts with advertisers for the purchase of advertising space on Google's CTV.

133 As for YouTube, Google and advertisers sign an advertising contract for advertisements displayed in videos uploaded on YouTube, and Google receives advertising fees from advertisers by displaying advertisements when viewers watch the videos.

134 Google “Create a CTV insertion order” https://support.google.com/displayvideo/answer/9979415?hl=en

(Reference) Characteristics of YouTube advertisements

There are two ways to distribute YouTube advertisements: the reservation type (a method in which advertisements are distributed after purchasing an advertising space at a rate determined by prior consultation) and the operational type (a method in which advertisement costs are determined in an auction format and advertisements are distributed), as well as the following four types of bidding.

Advertisers bid on four different metrics depending on the type of business or campaign they operate.[135]

- Cost-per-click (CPC) bidding: In CPC bidding, advertisers pay for advertising based on the number of clicks on their advertisements.
- Cost-per-impression (CPM) bidding: In CPM bidding, advertisers pay for advertising based on the number of times their advertisements are displayed, rather than paying per click.
- Cost-per-conversion (CPA) bidding: In CPA bidding, advertisers pay for advertisements based on the percentage of clicks that result in a conversion (purchase, newsletter sign-up, phone call, download, or other action beneficial to the advertiser).
- Cost-per-view (CPV) bidding: In CPV bidding, advertisers pay for advertisements based on the number of times they are viewed.

135 Google, "Choosing a Bidding Strategy to Meet Your Goals." https://support.google.com/google-ads/answer/2472725?hl=ja

5. Evaluation of Market Characteristics and Competition Conditions

As noted in 3.3 (1) above, CTVs have become a common device for consumers to use to watch VOD. Since Internet access is essential for viewing VOD, Internet access provided through a TV OS is one of the main functions of TVs. With regard to VOD through CTVs, as described in the 2.3 above, there is a layered structure consisting of ①devices, ②TV OS, ③VOD and ④video content. Of these, the TV OS is positioned as the foundation for providing information and services to users on CTVs, and specific TV OS providers have high market shares (see Chart 3-6 above).

As stated in the first section above, if VOD providers are unjustly excluded or unjustly disadvantaged by the actions of TV OS providers in such a layered structure, the creative flair of VOD providers may be stilted, which may impair the distribution of diverse and high-quality content and cause disadvantages to consumers.

From this viewpoint, this chapter focuses on the TV OS layer, which is the key to various functions and services, including Internet connection functions, in the layered structure for CTVs, and examines the characteristics of each market for CTVs/TV OS and VOD. We will then evaluate the state of competition in the market.

1 Market Characteristics Related to CTV/TV OS and VOD

(1) Market Characteristics Related to CTV/TV OS

As described in 2.3 above, among the layered structure for CTV, for the TV OS layer, the TV OS provider is the supplier, and consumers, device manufacturers, and VOD providers exist as the user groups, respectively. Since TV OS providers do not provide a TV OS directly to consumers, but provide TV OS via CTVs equipped with TV OS, when evaluating the characteristics of the market for TV OS, we will consider not only the TV OS, but also the relationship with CTVs integrated with TV OS, if necessary (for this purpose, the term "CTV/TV OS " will be used).

a. Indirect network effects

(a) Consumers and VOD providers

Regarding consumers' needs for CTVs, according to the consumer questionnaire, as shown in Chart 5-1, about half of consumers consider the screen size and picture quality of the TV itself as well as the price when selecting a TV, while a certain number of consumers (25.1% of all consumers) consider "the number and type of VOD available." As for streaming devices, as shown in Chart 5-2, the largest number of consumers (62.6% of all respondents) chose "price (initial cost and running cost)" as a factor to be considered when selecting such devices (multiple responses allowed), followed by "number and type of available VOD" (51.2% of all respondents). Thus, it is assumed that a certain degree of

consumers considers the availability of a variety of VOD to be important when selecting a CTV.

Chart 5-1 Factors considered when selecting a TV (multiple responses allowed)

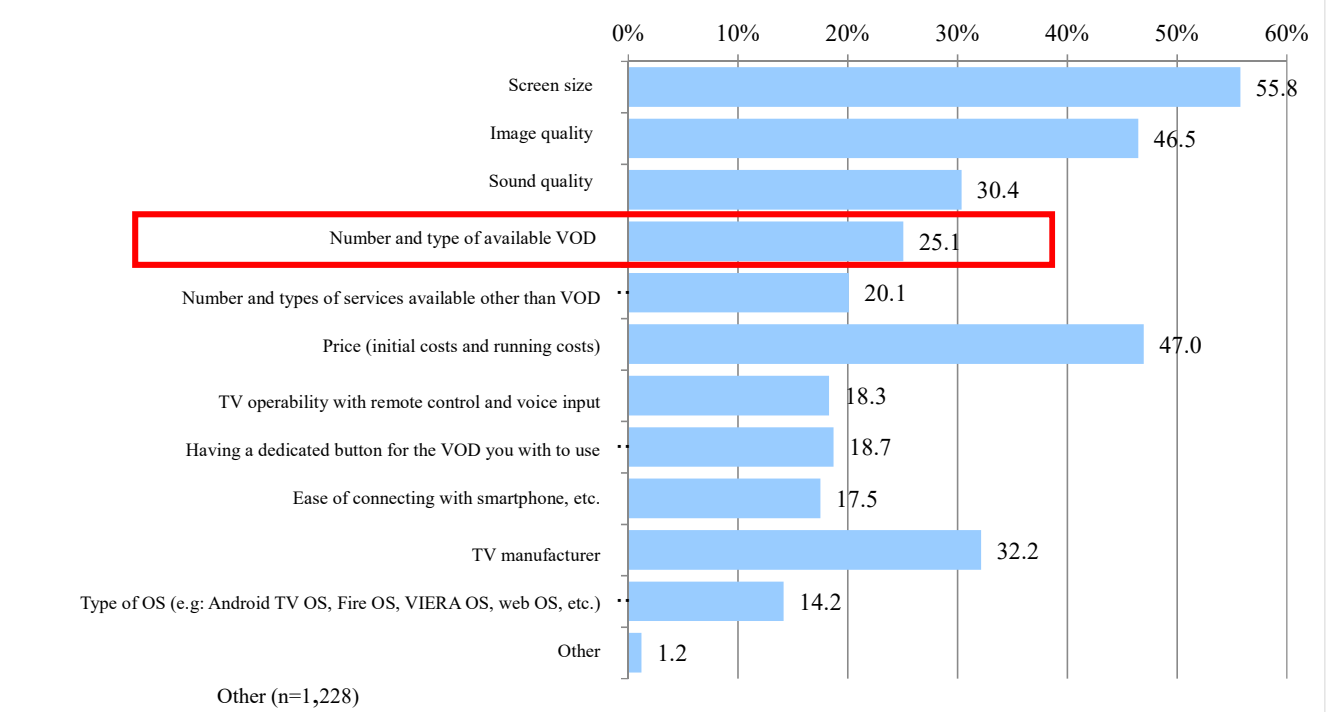
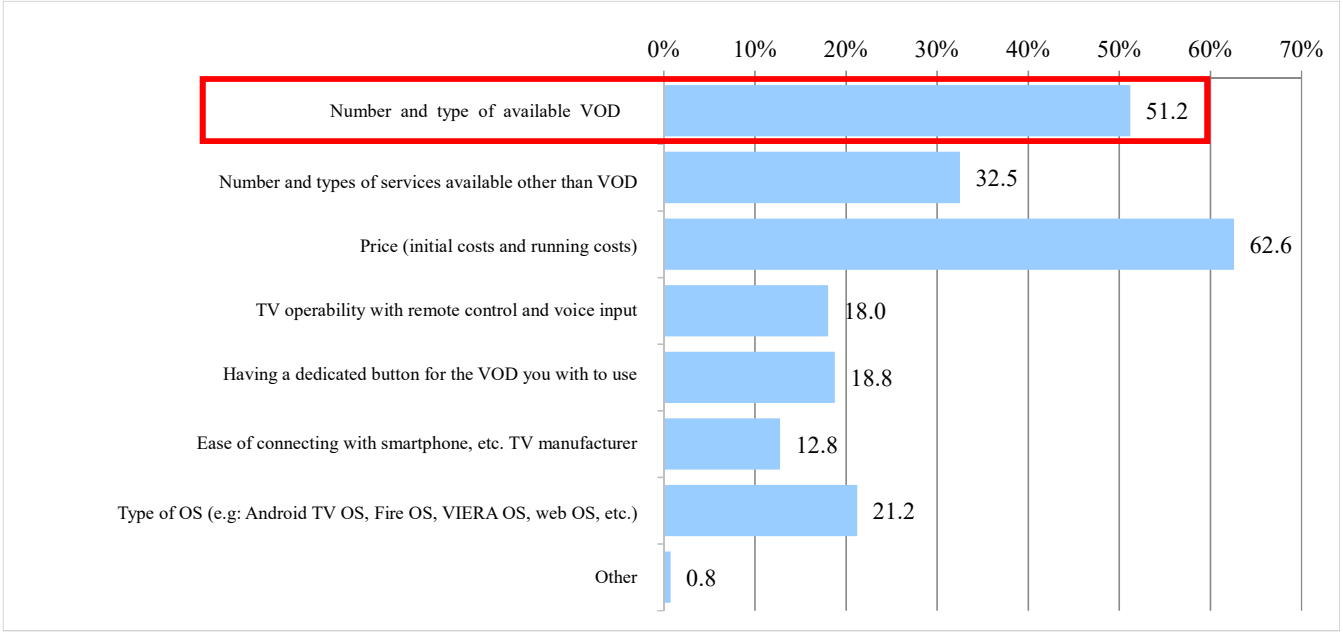


Chart 5-2 Factors considered when selecting a streaming device (multiple responses allowed)



Based on these results,

consumers will have access to a greater variety of VODs if they use a CTV with a TV OS that offers a greater number of available VODs.

. Therefore, if other transaction conditions, such as price, are the same, consumers usually prefer CTVs equipped with a TV OS that offers a larger number of available VOD, and the utility and benefits obtained from the use of such TV OS are considered to be higher.

Next, regarding needs related to C TV among VOD providers, the following points were raised by said VOD providers.

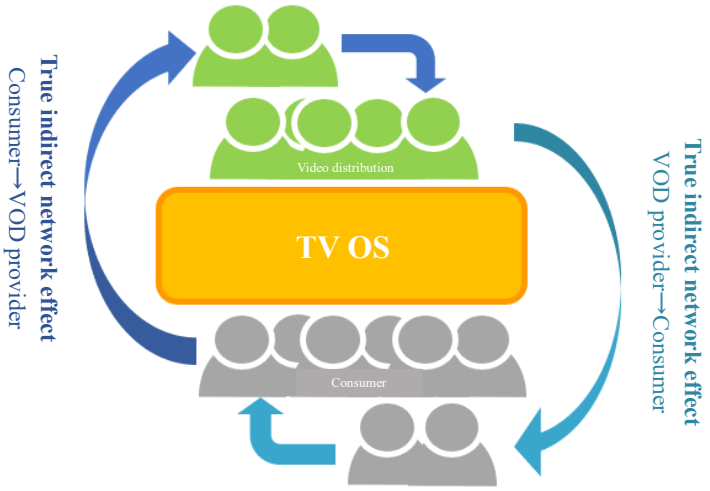
- The company prioritizes the development of VOD App for each TV OS, taking into consideration its own development resources and the growth in the number of users of its services through the provision of VOD Apps for TV OS.
- The company does not provide VOD App for TV OS that have a small number of users and low profitability, as it would incur high development costs to support all TV OS.
- With regard to the provision of VOD Apps for TV OS with relatively few users, the development costs compared to the payments from users results in a loss. It is still, however, considered a necessary investment for users to utilize VOD on their TVs.

In light of each of these points, it is suggested that VOD providers consider it important to a TV OS that is used by a larger number of consumers.

Considering this fact, VOD providers can provide their VOD to a larger number of consumers through a TV OS used by a larger number of consumers, and thus the expected revenue from the use of such TV OS is usually higher.

Based on the above, positive indirect network effects between consumers and VOD providers can usually be considered to provide mutual benefit (see Chart 5-3). The following is a summary of the results of the study.

Chart 5-3 Indirect Network Effects of Consumer and VOD providers



(b) Device manufacturers and VOD providers

With regard to needs related to TV OS among device manufacturers, the following points were raised by device manufacturers at the business interview.

- We believe that one of the advantages of our TV OS is that it supports more VOD apps than other competing TV OS.
- The OS for a certain TV was adopted in terms of the number of VOD apps handled, etc.
- Support for VOD, which are in demand by users, will strengthen the superiority of the TV OS.

In addition, VOD providers pointed out the following:

- The number of CTVs equipped with the OS can be considered as a criterion in determining whether or not to support each TV OS.
- Priority is given to the development of apps for operating systems that are expected to be used or for which there is a high need for use.

In light of each of these points, it is believed that it is important for device manufacturers to use a TV OS that is adopted by more VOD providers, and for VOD providers to use a TV OS that is adopted by more device manufacturers.

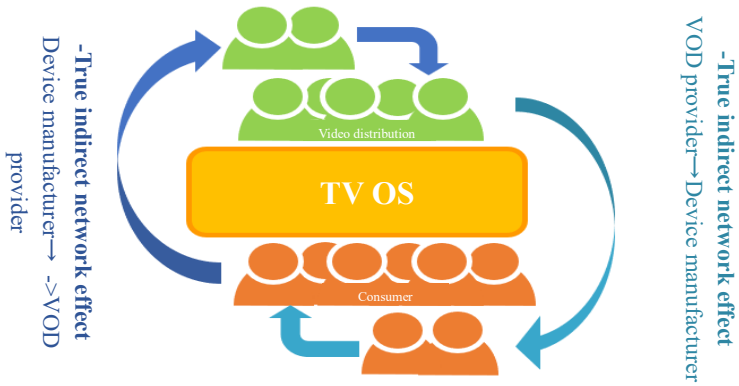
In light of the above, if the number of VOD available on a TV OS increases, device manufacturers can usually expect to earn higher revenues from the use of this TV OS, while VOD providers can also expect to earn higher revenues from the use of a TV OS used by a larger number of device manufacturers. On the other hand, VOD providers can provide their own VOD to a larger number of consumers through a TV OS used by

a larger number of device makers, and the expected revenue from the use of such TV OS will usually be higher.

Therefore, positive indirect network effects between device manufacturers and VOD providers are usually considered to be mutually operative[136] (see Chart 5-4.)

In the case of a vertically integrated model, where the same operator is both a device manufacturer and a TV OS provider, the above argument does not apply because the TV OS installed on the device is limited to that of the company in question, regardless of the number of available VOD.

Chart 5-4 Indirect Network Effects of Device Manufacturers and VOD providers



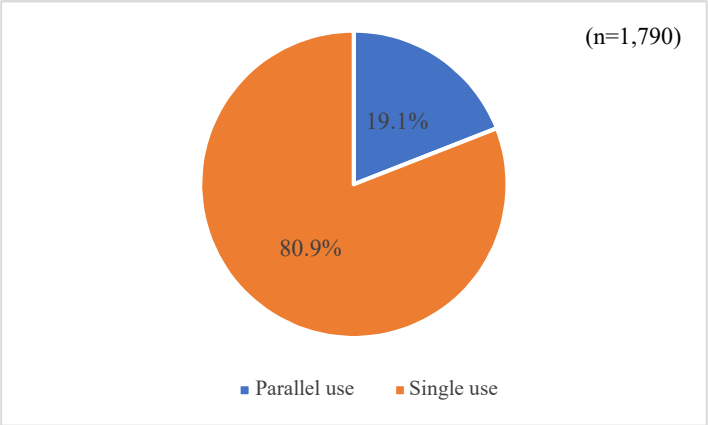
b. Single homing/multi-homing[137]

With regard to the usage of CTVs among consumers, according to the consumer questionnaire, 80.9% of consumers use a single CTV and not multiple CTVs, as shown in Chart 5-5.

136 Regarding the relationship between device manufacturers and consumers, firstly, in regard to whether consumers would get more utility from using a TV OS that is used by more device manufacturers, the consumer questionnaire shows that only 3.2% or 7.6% of consumers cited the TV OS as the most important consideration when selecting a CTV, and that consumers are more likely to choose a CTV if they use a TV OS that is used by more device manufacturers. According to consumer questionnaires, only 3.2% or 7.6% of consumers cited the TV OS as the most important consideration when selecting a CTV, and consumers are not likely to consider the number of device manufacturers using the TV OS when selecting a CTV. Next, it is assumed that device manufacturers may gain more utility from the use of a TV OS that is used by a larger number of consumers if the TV OS is installed, but this point is not necessarily clear since it was pointed out in the business interview that the advantage of the TV OS adopted is the large number of compatible VOD apps, but this point is not necessarily clear.

137 A situation in which a user uses only one platform is called single homing, while a situation in which a user uses multiple platforms is called multi-homing.

Chart 5-5 Parallel Use of CTV[138]



In light of these results, it can be inferred that consumers usually incur financial costs when purchasing devices, and given the lack of significant goods differentiation[139] and the limited number of installation locations, especially for smart TVs among the CTVs, it is uncommon for users to use multiple CTVs simultaneously to watch VOD. Therefore, it is considered that consumers are essentially single homing in the case of TV OS.

In addition, it is not expected that a single CTV device will be equipped with multiple TV OS, and if multiple TV OS are adopted, development and maintenance costs will be incurred for each OS. As shown in Chart 2-9 above, few device manufacturers have adopted more than one TV OS, and most of them have limited themselves to one TV OS. Even if a device manufacturer adopts more than one TV OS, the TV OS in each product series is the same. This is why device manufacturers are also essentially single homing in regard to TV OS.

On the other hand, in light of the fact that VOD providers are incentivized to offer their VOD to a larger number of consumers, they do not offer their apps only for a specific TV OS, but usually offer their apps for multiple TV OSs.[140] and therefore, they are basically multi-homing (see Chart 2-12 above) for major VOD[141] (see Chart 5-6 above).

138 The respondents to the consumer questionnaire selected whether they use a smart TV or streaming device, and the number of users per device was tabulated.

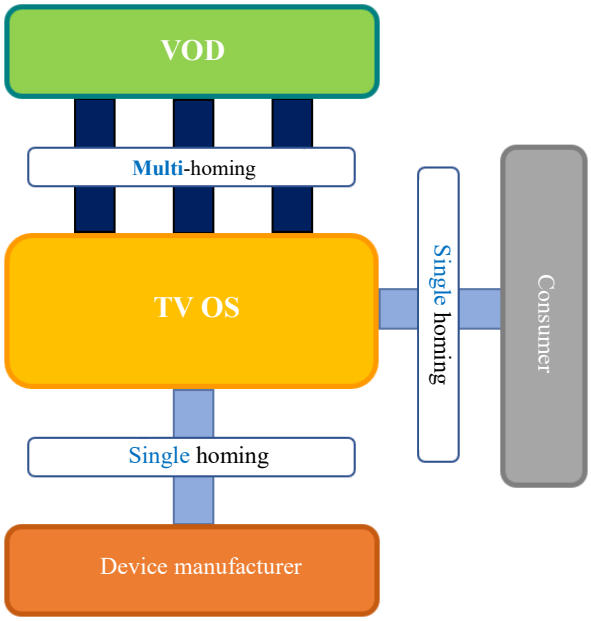
139 In this regard, one of the operators pointed out that they thought it would be difficult to differentiate their products if they adopted the same TV OS as other companies; however, they decided to eliminate the disadvantages by differentiating their products by developing and installing functions and apps in-house.

140 However, as mentioned in (a) above, it is likely that VOD providers prioritize the development of apps by taking into consideration their own development resources and the growth in the number of users of their services by providing apps for TV OS. Given this, if development resources are limited, it is possible that single homing may be used for the TV OS, which has a large number of users.

141 Regarding two-side markets (multi-side markets), there is the argument that a platform sets a lower price for a group of consumers with higher price elasticity and a lower price for a group of consumers with greater indirect network effects over the other group of consumers. Additionally, when one side is single-homing and the other side is multi-homing, there is an argument that platforms have an incentive to set lower prices for the single-homing user group and higher prices for the multi-homing user group.

Chart 5-6 Single homing/multi-homing status

(CTV/ TV OS)



(2) Market Characteristics Related to VOD

For VOD, business relationships exist among consumers, content providers, device manufacturers, TV OS providers, and VOD providers, respectively. The following section examines the characteristics of the market for VOD.

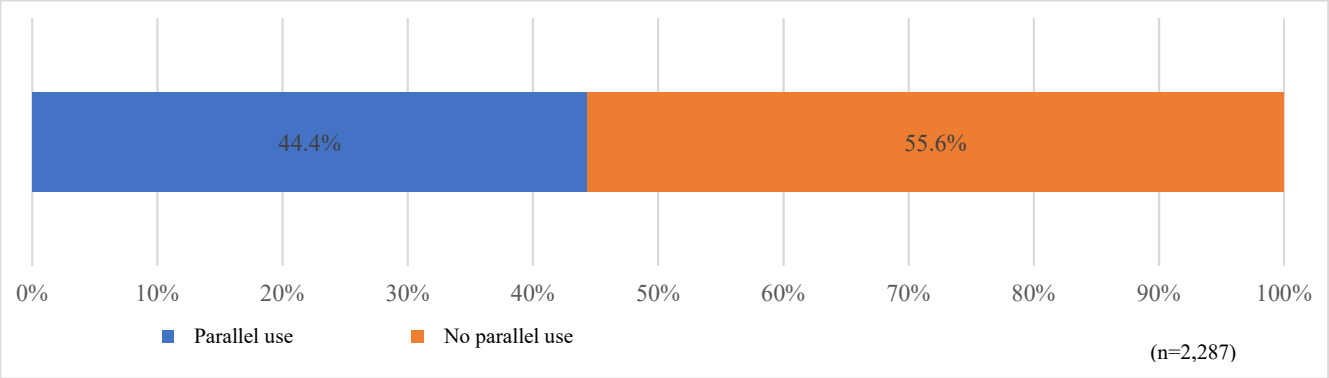
As shown in Chart 5-7, the percentage of consumers who use or have used multiple SVOD concurrently accounted for 44.4% of all respondents, and the most common reason for this was "because there was content that could not be seen on only one paid VOD " at 58.3% as shown in Chart 5-8. In addition, according to the consumer questionnaire regarding the relationship between the number of SVOD used and the number of users, as shown in Chart 5-9, the number of applicable consumers tends to decrease as the number of SVOD used increases. In light of these data, it is likely that a certain number of consumers are accessing multiple SVOD at the same time, indicating a multi-homing trend. Consumers select the type and number of VOD they use according to the content of the service and their own budget and time constraints. Regarding single/multi-homing, according to the consumer questionnaire, the specific VOD used by users who use one or two SVOD services which are particularly popular among users (see Chart 5-9), are as shown in Chart 5-7. The majority of consumers use Amazon Prime Video, followed by Netflix.[142]

In addition, device manufacturers and TV OS providers also pre-install multiple VOD after negotiating with VOD providers from the viewpoint of enhancing the convenience (user

142 Similarly, in the subscriber-based shares shown in footnote 100 above, Amazon Prime Video is the most used, followed by Netflix.

experience) of their own devices and TV OS, or making them compatible with their own TV OS(see Chart 2-12 above).

Chart 5-7 Concurrent use of paid VOD (SVOD)[143]



143 In this tabulation, only those who answered that they currently (as of the end of June 2023) use SVOD were extracted from the viewpoint of understanding the current (as of the end of June 2023) single-homing/multi-homing usage status of SVOD users. As a result, the figures are different from those in the simple tabulation shown in the Appendix.

Chart 5-8 Reasons for using (or having used) multiple paid VOD (SVOD) in parallel (multiple responses allowed)[144]

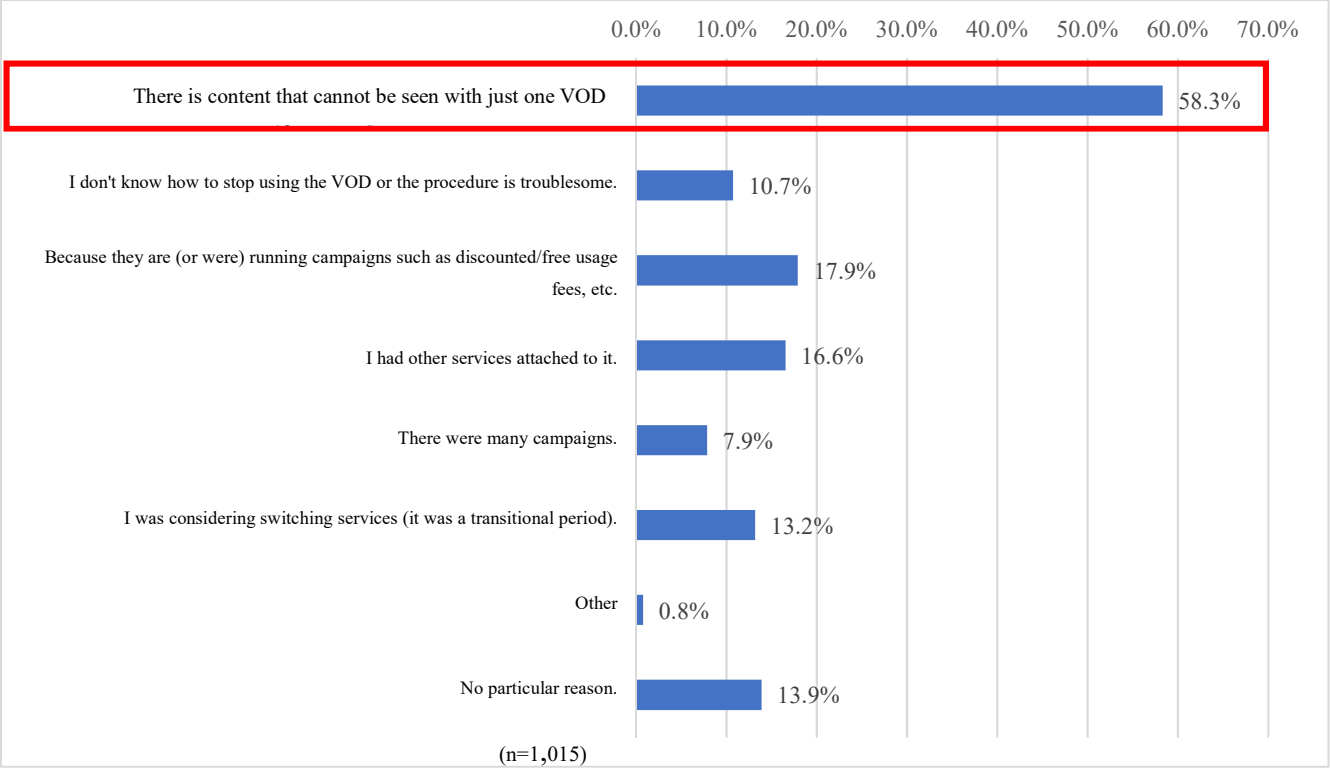
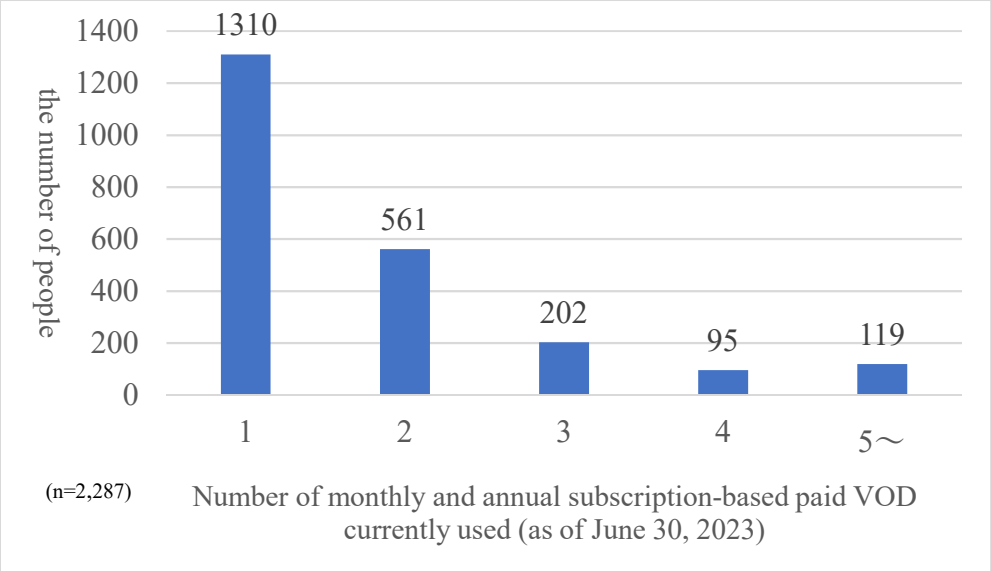


Chart 5-9 Distribution of the number of paid VOD (SVOD) used by consumers and the number of users



144 The figures in this tabulation differ from the results of the simple tabulation in the Appendix because only those who responded that they currently (as of the end of June 2023) use paid VOD (SVOD) were selected from the same perspective as in footnote 143 above.

Chart 5-10 Combination of paid VOD (SVOD) used by consumers who use one or two paid VOD (SVOD) (top 10)

Order	VOD used	Percentage of total users who use only one paid VOD
1	Amazon Prime Video	60.3%
2	Netflix	15.1%
3	U-NEXT･Paravi	4.9%
4	Hulu	3.0%
5	DAZN	2.8%
6	YouTube Premium	2.7%
7	dAnime Store	1.9%
8	Disney+	1.7%
9	ABEMA Premium	1.6%
10	Other	1.3%

（n=1,310）

Order	Combination of VOD	Percentage of total users who use the two paid VOD
1	Amazon Prime Video／Netflix	27.1%
2	Amazon Prime Video／Disney+	7.1%
3	Amazon Prime Video／YouTube Premium	6.6%
4	Amazon Prime Video／DAZN	5.0%
5	Disney+／Netflix	4.8%
6	Amazon Prime Video／Hulu	4.6%
7	Amazon Prime Video／U-NEXT･Paravi	4.1%
8	Amazon Prime Video / WOWOW On Demand	3.2%
9	Amazon Prime Video/J:COM on Demand	3.0%
10	Amazon Prime Video / dAnime Store	2.9%

(n=561)

In addition, the following points were raised by content providers at the business interview regarding content providers

- The distribution of content to VOD is meant to be a part of advertising activities, and we believe that exclusive distribution is not necessarily the best solution in terms of spreading the content.

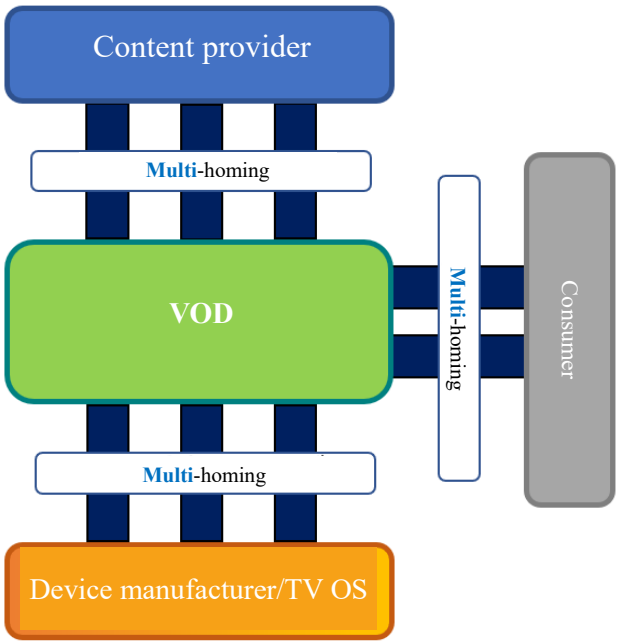
- From the viewpoint of making its works widely known to users, the company expands its business in all directions to major video distributors in Japan, and its distribution contracts are in the form of EST, TVOD, or SVOD.

In light of these points, at least in the current situation, content providers do not provide their own content only to specific VOD with the view to providing their own content, except for content subject to exclusive distribution contracts, to as many consumers as possible. In the first place, content providers usually deal with multiple VOD providers, and therefore, they are multi-homing with respect to VOD.

Thus, for VOD, it can be seen that currently, consumers, device manufacturers, TV OS providers, and content providers are or tend to be multi-homing (see Chart 5-11). The following table shows the current state of the market for VOD.

Chart 5-11 Single homing/multi-homing status

(VOD)



2 Evaluation of the Competitive Landscape for CTV/TV OS

(1) Competitive Pressure from Incumbents for CTV/TV OS

As mentioned in section 3-1(2) above, SONY, SHARP, Panasonic, and TVS REGZA each hold around 20% of the market share for smart TVs by device manufacturer (Chart 3-3 above). On the other hand, Amazon and Google have a 40-50% and 20-30% share of the TV OS market, respectively, and these two companies account for the majority of market share.

There are two types of TV OS: those provided by TV OS providers to other device manufacturers, such as Android (ATV/GTV) and Fire OS, and those developed by the device manufacturers themselves and installed in their devices, such as REGZA OS and webOS. In addition, the available functions may differ for each individual TV OS. In light of the above, each TV OS has its own specific role and functions, and there is room for differentiation among them. However, all the TV OSs share the minimum functions of a TV OS, such as connecting to the Internet and enabling various services, including VOD, to be used on TVs. Therefore, from the viewpoint of provision to consumers, it can be said that there is a competitive environment for TV OS. Amazon and Google have 40-50% and 20-30% market shares, respectively, while there are other TV OS providers with 10-20% market shares. It is considered that there is only a certain degree of competitive pressure among existing TV OS at this point.

Note that while Amazon and Google provide their TV OS to device manufacturers, other TV OS providers are vertically integrated at the device layer and do not provide their TV OS to other device manufacturers. Therefore, for such vertically integrated TV OS providers, the competitive pressure they exert on other TV OS is considered to be relatively small, as there is no competition for TV OS to be installed in the devices of other device manufacturers.

(2) New Market Entry for CTV/TV OS

With regard to the development of a TV OS, the following points have been raised by TV OS providers.

- Although it is difficult to pinpoint the exact cost of developing a TV OS, it is thought to require considerable human resources and monetary costs at the scale of tens of billions of yen.
- Developing a TV OS from scratch without using open-source software is expensive and has no development advantages.
- Developing a TV OS in-house offers the advantage of providing user-friendly operability and unique functions. However, we believe that the benefits of adopting a widely-used global TV OS outweigh these advantages, as it better accommodates the many VOD services that users have been demanding in recent years.

In this regard, as mentioned in the 2.1(2) above, although several TV device manufacturers have developed and are operating TV OSs for their TV devices, the number of such OSs is limited. In addition, there are no confirmed cases of new entrants in the TV OS market in recent years.

In light of these factors, the development and maintenance of a TV OS will require specialized and technical skills and significant cost in order to accurately respond to changes in consumer needs and VOD.

Therefore, it cannot be concluded that there are active new entrants in the TV OS market.

(3) Competitive Pressure from Adjacent Markets for CTV/TV OS

Aside from CTVs, potential devices that may be used to view VOD mainly include ① smartphones, ② PCs and tablets, and ③ home game consoles, as shown in Chart 2-7 and Chart 3-20 above. Next, we shall examine competitive pressures from adjacent markets for each of these.

a. Smartphones

With the smartphone usage rate (all ages) in Japan reaching 97.1% in 2022[145], they have widely spread among the population. As such, as shown in Chart 3-20 above, respondents in the consumer questionnaire indicated that "smartphones" are the most common device used to view VOD, accounting for 66.4% of all responses.

On the other hand, smartphone screens are usually less than 7 inches in size[146], which is a significant departure from the screen size of TVs, and unlike televisions, which are designed to be installed in the home, this product also has features as a mobile terminal that allow it to be used while on the move.

Therefore, unlike viewing via a CTV, viewing VOD via a smartphone is not suitable for multiple people using the same device to view the same content at the same time due to the screen size. On the other hand, the mobile terminal feature makes it possible for individuals to view video content regardless of location, such as while on the move. In this regard, as described in 3.3(2) above, there is a certain level of need (including latent needs) to view VOD on TVs with large screens, and there are cases where viewing via TVs is preferred over smartphones with small screens, so users use different devices depending on the viewing location and content to be viewed, as well as other aspects of the VOD.

On the other hand, some business operators have pointed out that an increasing number of consumers are using CTVs and smartphones together when viewing VOD. As mentioned above, it is believed that consumers are viewing TVs and other devices in different ways depending on the situation in which they view the VOD, and the fact that the said combination exists, suggests that the two are complementary rather than alternatives.

Therefore, smartphones are used in a complementary manner to CTVs when viewing VOD, and there is not enough competitive pressure from smartphones as an adjacent market to the CTV/TV OS.

145 See footnote 3 above.
146 See footnote 13 above.

(a) PCs and tablets

As shown in Chart 3.20 above, in the consumer questionnaire, "PC" (55.6%) and "tablet" (25.8%) were selected by a certain number of consumers as the devices they use to view VOD.

Although PCs use monitors with larger screen sizes than smartphones, the domestic PC market is dominated by notebook-type PCs with relatively small screen sizes[147], and even desktop-type PCs are only monitors used for PCs and have a limited viewing distance compared to TVs. In addition, desktop PCs are usually installed on desks, which are considered unsuitable for placing large devices such as TVs, etc. For this reason, monitors with screen sizes as large as those of TVs are rarely used for desktop PCs. Similarly, although tablets have a larger screen size than smartphones, they are basically mobile devices, and viewing distance is limited in light of the fact that they are viewed on a screen held in the hand etc. The screen size is the same or smaller than that of a PC.

For this reason, viewing of VOD via PCs and tablets is generally considered unsuitable for multiple people simultaneously viewing the same content using the same device because the screen is smaller than when doing so via a CTV, while a notebook PC or tablet allows individuals to view content in other locations, such as when they are away from home. As shown in 3.3(2), it is believed that TVs and other devices are used differently depending on the situation in which the VOD is viewed.

In this regard, PC OS businesses have pointed out that PCs are used for a wide range of customer needs, such as document creation and video creation, and that video viewing is only one of those needs. Thus, smartphones and tablets, which meet a wide range of needs as well, are the main competitors to PCs. On the other hand, some operators have indicated that an increasing number of consumers are using CTVs and PCs together to watch VOD, which, as in (a) above, suggests that the two have a complementary rather than a substitutive relationship.

Therefore, PCs and tablets are used in a complementary manner to CTVs when viewing VOD, and there is not enough competitive pressure from PCs and tablets as an adjacent market to the CTV/TV OS.

c. Home game consoles

In addition to smartphones, PCs, and tablets, home game consoles connected to the Internet can be used to view VOD on TVs, and home game consoles may have aspects

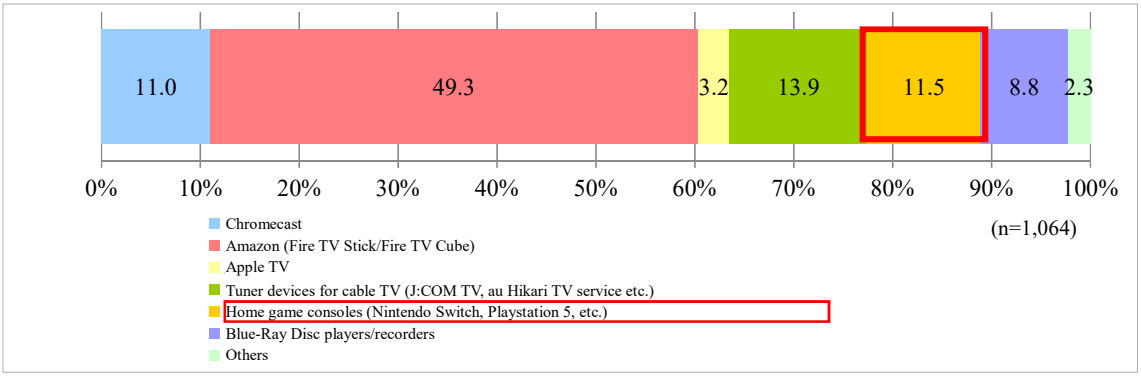
147 Japan Electronics and Information Technology Industries Association (JEITA), "Domestic Shipments of Personal Computers in FY2022.
https://www.jeita.or.jp/japanese/stat/pc/2022/
According to this report , notebook PCs account for about 83% (in terms of volume) of the domestic PC market.

similar to streaming devices in that they are connected to the TV used at home. When the specific devices used by consumers who answered the consumer questionnaire were checked, as shown in Chart 2-7 above, 27.5% of all respondents who answered that they connect an external device to their TV to connect to the Internet for viewing VOD said they use home game consoles. According to the consumer survey, as shown in Chart 5-12, 11.5% of all consumers answered that they mainly use home video game consoles. The main purpose of home game consoles for such consumers is playing games, and not many consumers use them for viewing VOD.

In addition, given that streaming devices can be purchased for several thousand yen, while home game consoles cost several tens of thousands of yen, it is difficult to imagine consumers switching from streaming devices to home game consoles merely as a device for connecting to and watching VOD on TV.

Furthermore, in relation to smart TVs, while it is possible to use VOD solely with a smart TV, VOD cannot be viewed on home game consoles alone, and a monitor is always required for viewing such VOD on a home game console. It is difficult to imagine, therefore, consumers switching from using smart TVs to home video consoles as a device for viewing VOD on TVs.

Chart 5-12 External devices mainly used to connect to the Internet



In light of the above, home game consoles are not a sufficient substitute for CTVs when viewing VOD on TVs, and there is not enough competitive pressure from home game consoles as an adjacent market for CTV/TV OS.

(4) Competitive Pressure from Consumers for CTV/TV OS

(a) Competitive pressure from consumers

As shown in Chart 5-1 above, consumers place more importance on the size and picture quality of the TV screen, price, and the number and type of VOD available from the manufacturer, rather than the type of TV OS, when selecting a smart TV. As shown in Chart 5-2 above, when consumers select a streaming device, they are more concerned about price, the number and type of available VOD, and the number and type of apps and services other than VOD available, rather than the type of TV OS. Thus, it is assumed that consumers are choosing CTVs without being limited by the installed TV OS.

On the other hand, as described in 1(1)(b) above, it is rare for consumers to use multiple CTVs in parallel. In addition, CTVs, especially those with large screens, are expensive, ranging from 100,000 yen to several hundred thousand yen, so switching costs are high for consumers. Therefore, it is not easy for consumers to switch to a new smart TV. However, some streaming devices can be purchased for only a few thousand yen, so the switching cost for consumers is considered relatively low.[148]

Therefore, while competitive pressure from consumers is considered unlikely, there may be a certain amount of competitive pressure from consumers switching from smart TVs to streaming devices.

148 As shown in Chart 2-6 above, 28.6% of those who use streaming devices to watch VOD use smart TVs in parallel.

(b) Competitive pressure from VOD providers

As described in 1(1)(b) above, VOD providers are basically multi-homing with respect to TV OS, since they usually provide their apps to multiple TV OS. In particular, as mentioned in 1(1)(b) above, VOD providers recognize the need to support all major TV OS as much as possible from the perspective of reaching more consumers. In light of the fact that the use of a TV OS is indispensable for providing VOD via CTVs, VOD providers are considered to have less bargaining power compared to major TV OS providers, except for a few exceptions such as VOD with a particularly large number of users. Therefore, it can be said that competitive pressure from these VOD providers is unlikely.

Based on the above, it is hard to say that there is sufficient competitive pressure from CTV consumers.

(5) Summary

As for the TV OS layer in the layered structure for CTV, described in 3.1 above, in Japan, Amazon and Google have the majority of the market share, but there are companies other than Amazon and Google with a certain portion of the market share and it can be said that there is a certain level of competition among the existing TV OS providers. On the other hand, considering the fact that TV OS providers other than Amazon and Google are vertically integrated in the device layer and do not provide TV OS to other device manufacturers, the competitive pressure from these providers is considered to be relatively small.

In addition, there are no active new entrants and there is not enough competitive pressure from neighboring markets or from users. Additionally, in light of the situation where positive indirect network effects can work among users of CTV/TV OS as described in 1 (1)(a) above, it is considered that the TV OS layer is a market where it is easy to maintain an oligopoly once it has acquired a certain level of consumers and the probability is that Amazon and Google will only further strengthen their influence in the market moving forward.

3 Evaluation of the State of Competition for VOD

(1) Competitive Pressure from Existing Businesses for VOD

As shown in Chart 3-18 above, no particular business has a prominent share of the VOD market as a whole. However, it is possible that the user base differs by content category (non-live content such as dramas and movies and live content such as sports), and that certain businesses may have a prominent share of the market when viewed by this category. According to the consumer questionnaire, as shown in Chart 5-13 to Chart 5-15 drama, movie and animation, which are basically provided by all VOD, were selected as the most watched video content categories by many VOD, while sports and music were selected as the most

watched video content categories by some VOD.

Chart 5-13 Categories of content viewed on each VOD (SVOD)[149]

(Multiple responses allowed)

*First place: red, second place: orange, third place: yellow

Service name	Respondent	Drama	Movies	Animation	Sports	Music	Education & Culture	Other
Amazon Prime Video	100.(1,519)	54.8(832)	72.9(1,107)	47.4(720)	10.5(159)	15.7(239)	5.3(81)	2.4(36)
Apple TV+	100.(45)	37.8(17)	35.6(16)	26.7(12)	33.3(15)	28.9(13)	20.(9)	2.2(1)
Disney+	100.(253)	42.7(108)	67.6(171)	53.4(135)	4.3(11)	14.2(36)	6.7(17)	0.(0)
Netflix	100.(699)	65.7(459)	68.8(481)	41.1(287)	6.2(43)	12.7(89)	5.6(39)	1.(7)
YouTube Premium	100.(232)	24.1(56)	23.7(55)	32.3(75)	25.4(59)	56.5(131)	23.7(55)	11.2(26)
ABEMA Premium	100.(152)	39.5(60)	28.3(43)	37.5(57)	32.2(49)	18.4(28)	10.5(16)	8.6(13)
Video Market	100.(29)	31.(9)	20.7(6)	37.9(11)	31.(9)	44.8(13)	13.8(4)	0.(0)
Lemino Premium (former dTV)/Hikari TC video service	100.(69)	56.5(39)	42.(29)	37.7(26)	20.3(14)	26.1(18)	14.5(10)	0.(0)
Rakuten TV	100.(74)	31.1(23)	28.4(21)	12.2(9)	39.2(29)	21.6(16)	16.2(12)	4.1(3)
U－NEXT・Paravi	100.(236)	57.2(135)	55.1(130)	42.4(100)	15.3(36)	13.1(31)	8.1(19)	0.8(2)
BANDAI Channel	100.(42)	23.8(10)	23.8(10)	38.1(16)	16.7(7)	26.2(11)	26.2(11)	0.(0)
d Anime store	100.(127)	15.7(20)	18.9(24)	83.5(106)	7.9(10)	13.4(17)	6.3(8)	0.8(1)
DAZN	100.(160)	9.4(15)	11.3(18)	11.9(19)	81.9(131)	7.5(12)	5.6(9)	0.(0)
FOD Store	100.(60)	43.3(26)	31.7(19)	31.7(19)	25.(15)	18.3(11)	15.(9)	5.(3)
Hulu	100.(220)	64.5(142)	53.2(117)	41.4(91)	12.7(28)	18.2(40)	7.3(16)	4.1(9)
NHK On-demand	100.(95)	57.9(55)	36.8(35)	30.5(29)	27.4(26)	25.3(24)	36.8(35)	2.1(2)
TELASA	100.(65)	47.7(31)	40.(26)	33.8(22)	13.8(9)	21.5(14)	15.4(10)	7.7(5)
JCOM On-demand	100.(109)	44.(48)	47.7(52)	31.2(34)	28.4(31)	22.(24)	13.8(15)	0.(0)
SPOOX (former Skyperfect !On-demand)	100.(38)	31.6(12)	39.5(15)	39.5(15)	23.7(9)	15.8(6)	26.3(10)	2.6(1)
WOWOW On-demand	100.(141)	48.2(68)	61.(86)	24.1(34)	32.6(46)	33.3(47)	13.5(19)	0.7(1)
Other	100.(31)	51.6(16)	45.2(14)	38.7(12)	22.6(7)	25.8(8)	19.4(6)	12.9(4)

(n=2287)

149 For the numbers in each cell, the "response rate (number of respondents)" is shown. The same applies to Charts 5-14 and 5-15 below.

Chart 5-14 Categories of content viewed on each VOD (TVOD/EST) (multiple responses allowed)

*First place: red, second place: orange, third place: yellow

Service name	Respondent	Drama	Movies	Animation	Sports	Music	Education & Culture	Other
Amazon Prime Video	100.(255)	45.5(116)	73.3(187)	33.7(86)	13.7(35)	19.6(50)	10.2(26)	0.(0)
Google TV/Google Play (including rental/purchase via YouTube)	100.(41)	34.1(14)	51.2(21)	26.8(11)	22.(9)	26.8(11)	24.4(10)	0.(0)
iTunes Store	100.(39)	17.9(7)	28.2(11)	20.5(8)	20.5(8)	56.4(22)	15.4(6)	0.(0)
Microsoft movie & TV	100.(30)	36.7(11)	36.7(11)	40.(12)	43.3(13)	20.(6)	16.7(5)	0.(0)
ABEMA store	100.(54)	33.3(18)	38.9(21)	27.8(15)	29.6(16)	18.5(10)	11.1(6)	3.7(2)
Lemino (former dTV)/Hikari TV video service	100.(36)	38.9(14)	44.4(16)	44.4(16)	38.9(14)	25.(9)	16.7(6)	0.(0)
DMM.com (DMM video)	100.(70)	28.6(20)	31.4(22)	37.1(26)	20.(14)	22.9(16)	22.9(16)	12.9(9)
Rakuten TV	100.(54)	50.(27)	46.3(25)	25.9(14)	29.6(16)	22.2(12)	22.2(12)	1.9(1)
Video market	100.(37)	27.(10)	37.8(14)	48.6(18)	43.2(16)	35.1(13)	24.3(9)	0.(0)
U－NEXT・Paravi	100.(93)	40.9(38)	54.8(51)	44.1(41)	15.1(14)	20.4(19)	11.8(11)	1.1(1)
Bandai Channel	100.(37)	24.3(9)	37.8(14)	45.9(17)	21.6(8)	16.2(6)	21.6(8)	0.(0)
D Anime Store	100.(53)	32.1(17)	26.4(14)	56.6(30)	30.2(16)	9.4(5)	22.6(12)	0.(0)
FOD premium	100.(37)	43.2(16)	37.8(14)	43.2(16)	32.4(12)	32.4(12)	32.4(12)	0.(0)
Hulu store	100.(57)	45.6(26)	40.4(23)	21.1(12)	29.8(17)	19.3(11)	22.8(13)	0.(0)
NHK on-demand	100.(52)	48.1(25)	40.4(21)	26.9(14)	26.9(14)	21.2(11)	40.4(21)	1.9(1)
TELASA	100.(33)	39.4(13)	36.4(12)	27.3(9)	42.4(14)	30.3(10)	12.1(4)	3.(1)
J-COM on-demand	100.(41)	36.6(15)	39.(16)	46.3(19)	31.7(13)	39.(16)	19.5(8)	0.(0)
Others	100.(16)	12.5(2)	25.(4)	18.8(3)	6.3(1)	18.8(3)	12.5(2)	31.3(5)

(n=483)

Chart 5-15 Categories of content viewed on each VOD (AVOD)

(Multiple responses allowed)

*First place: red, second place: orange, third place: yellow

Service name	Respondent	Drama	Movies	Animation	Sports	Music	Education & Culture	Creater Combination Video	Other
ABEMA (free online)	100.(710)	25.1(178)	14.9(106)	39.(277)	30.3(215)	12.(85)	10.6(75)	5.1(36)	13.7(97)
LEMINO (free online)	100.(58)	25.9(15)	31.(18)	24.1(14)	31.(18)	27.6(16)	15.5(9)	20.7(12)	6.9(4)
TVer	100.(1112)	71.(790)	10.1(112)	21.(233)	6.8(76)	9.4(105)	8.9(99)	3.1(34)	14.3(159)
Locipo	100.(35)	25.7(9)	22.9(8)	28.6(10)	28.6(10)	20.(7)	20.(7)	25.7(9)	11.4(4)
Missed video services operated independently by TCV companies (Nittele free, TBS FREE, FOD missed free, TV video missed free, Tele HIghashi on the Net, etc.)	100.(322)	55.6(179)	17.7(57)	26.1(84)	17.1(55)	18.3(59)	16.8(54)	9.6(31)	8.7(28)
YouTube (not charged)	100.(2374)	10.8(256)	9.2(218)	18.8(447)	20.3(481)	52.6(1248)	17.6(417)	51.1(1213)	8.2(195)
TWITCH (not charged)	100.(119)	13.4(16)	16.8(20)	19.3(23)	21.8(26)	17.6(21)	10.1(12)	45.4(54)	9.2(11)
Others	100.(21)	19.(4)	14.3(3)	38.1(8)	4.8(1)	14.3(3)	14.3(3)	33.3(7)	28.6(6)

(n=2639)

In light of the results of the consumer questionnaire, there is room to believe that in contrast to dramas and movies, which are widely available, animation and sports are differentiated by the category of content viewed on each VOD, with some VOD specializing in this category. However, all of the VOD share the same basic functions as VOD, such as the ability to freely select and view video content according to one's own preferences, and there have been cases where VOD that have mainly distributed non-live content such as dramas and movies have entered the market to distribute live content such as sports.[150] In this study, we will evaluate the competition among VOD as a whole. As shown in Chart 3-18 above, given that Netflix has a 20-30% share and Amazon Prime Video and U-NEXT have a 10-20% share, a certain degree of mutual competitive pressure is expected to be exerted among existing VOD providers.

(2) New Market Entrants in the VOD Market

With regard to entry into the VOD market, existing VOD providers have pointed out the following

- Although there seems to be no barrier to new entrants, given that it is necessary to establish a route and funds to prepare sufficient content, to prepare a system to distribute it, and to establish an operational structure, the hurdle to entry is considered substantial. Furthermore, even if they were to overcome this hurdle, whether or not they would be able to develop their own originality and continue to serve viewers is a difficult question in the highly competitive environment in which various VOD are competing against each other.
- ① A long development period and large amount of funds are required from system design to system development and VOD to billing and distribution. ② It is difficult to recover large initial investment and content procurement costs unless the scale is above a certain level, and the payback period is expected to be long. And ③ the running costs to maintain the service are expected to be huge.
- The barriers to entry will vary depending on the scale of the business and the nature of the service, but at a minimum, the cost of infrastructure (system development or use of existing systems) and the cost of content procurement are considered barriers. In addition, in recent years, it has become essential to secure original content (original production or monopoly acquisition) to differentiate services in order to expand services, and the huge costs involved and the establishment of schemes to achieve this are considered to be barriers to entry in this changing market.

150 For example, Amazon is launching live sports coverage on Amazon Prime Video in April 2022.

- If a company operates its own ①distribution infrastructure, ②content procurement, and ③ distribution service, it will be difficult for new entrants to enter the market. For example, ① requires a huge system investment and several years of development time to support a wide variety of video playback devices, to ensure robustness against massive access, and to implement DRM (rights protection technology) required by major rights holders. As for ②, there are many negotiation and procurement costs (including obtaining materials for distribution and data processing) with a wide range of rights holders, and it is also necessary to secure human resources with knowledge and experience in conducting such procurement. In addition, as for ③, know-how unique to the Internet-based entertainment business (e.g., customer attraction, UI, payment processing) is essential for the business to succeed, and competition with many competitors, including global giants and domestic media companies (TV bureau, etc.) that have their own content and can also attract customers. In this situation, it is also necessary to compete with many competitors.

Based on these points, the costs of entering the VOD market can be roughly divided into two categories: initial investment costs for content procurement and system development, including billing methods, and running costs for the distribution of video content. With regard to initial investment costs, the initial investment is expected to be significant, given the large initial investment required for system development[151] and the large amount of video content required to meet consumer needs in light of the number of video content in existing VOD. As for running costs, the more users there are, the greater the load on the system, so periodic maintenance and system augmentation and repair are necessary to provide a stable delivery service. Therefore, trying to enter the market by setting up a VOD from scratch would require a large amount of capital.

On the other hand, as mentioned in 2.2 above, various operators have entered the VOD market in Japan from time to time. In this regard, the number of new entrants into the market seems to be less common than in the past, as the market expansion trend has been changing, as the number of subscribers has recently reached a plateau. However, for entry into the VOD market, it should be relatively easy for TV bureau, telecommunications carriers, and other businesses that are engaged in related businesses and have a certain level of business scale (including businesses outside Japan) to procure distribution content and develop websites or apps for distribution. In fact, one of the most recent examples can be found in the case of, a major U.S. movie distribution company entering the Japanese VOD market[152]. Therefore, it

151 Others have pointed out that in recent years, the cost of procuring the necessary content for VOD has skyrocketed, and the time required for system development has also lengthened.

152 Paramount, a major movie distributor in the U.S., began offering the "Paramount+" VOD within the J:COM and WOWOW services on December 1, 2023.
Paramount+ Japan / Paramount Plus Official X page

may be possible to limit the large initial investment to a certain level in relation to such businesses.

In light of the above, we believe that there is a certain degree of entry pressure for VOD.

(3) Competitive Pressure from Adjacent Markets for VOD

(a) YouTube and other video sharing services

Adjacent markets for VOD include, firstly, YouTube and other video sharing services. As described in 2.2(3) above, in this study, video sharing services such as YouTube are not considered to be VOD, but the form in which users select specific video content for viewing as a streaming service on the Internet is common to VOD. In this regard, one operator pointed out that the relationship between other VOD and YouTube may be considered competitive in terms of competing for users' disposable time. Therefore, it can be inferred that VOD and video sharing services such as YouTube are competing with each other in terms of consumers being able to view similar video content on the Internet. In this regard, as shown in Chart 2-10 above, YouTube is most frequently used by users to view video contents (including those by VOD). In this regard, as shown in Chart 2-10 above, YouTube is most frequently used by users to view video content (including those from VOD), and "niconico" is also used to a certain extent as another video sharing service.

These results suggest that viewing video content through video sharing services such as YouTube is a promising means of video viewing in terms of the availability of similar video content.

(b) Television broadcasting (terrestrial/BS/CS)

Next, TV broadcasting (terrestrial/BS/CS) is an adjacent market for VOD, where the same video content as VOD, such as dramas and movies, can be viewed. According to the "Survey Report on Information and Communications Media Usage Time and Information Behavior in FY2022" (June 2023), published by the Information and Communications Policy Research Institute of the MIC[153], the relationship between TV broadcasting viewing time and VOD viewing time is shown in Chart 5-16. Additionally, the percentage of people who watch television broadcasts and VOD in a day is shown in Chart 5-17. Based on these results, the trend over the past few years has been a gradual decrease in viewing time for TV broadcasts, while viewing time for VOD has gradually increased. Despite this, TV broadcast viewing is considered to be the dominant means of viewing video content.

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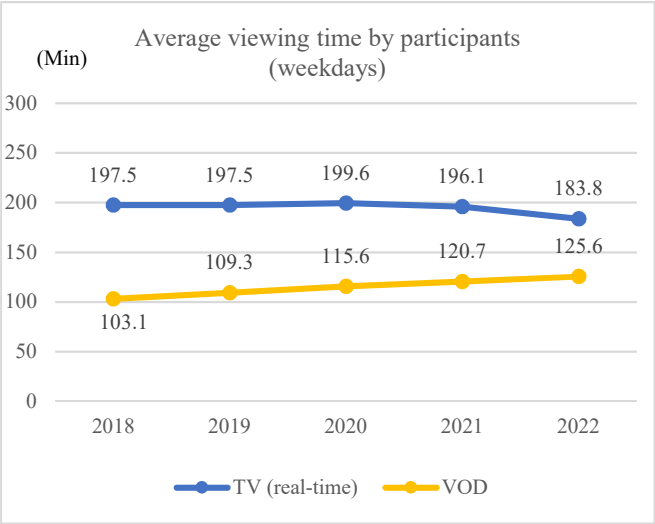
https://twitter.com/ParamountPlusJA/status/1730408108974092414

153 See footnote 6 above and "Survey Report on Information and Communications Media Usage Time and Information Behavior in FY2021," Information and Communications Policy Research Institute, MIC (September 2020).

Chart 5-16 Average time spent by participants (weekdays and holidays)[154]



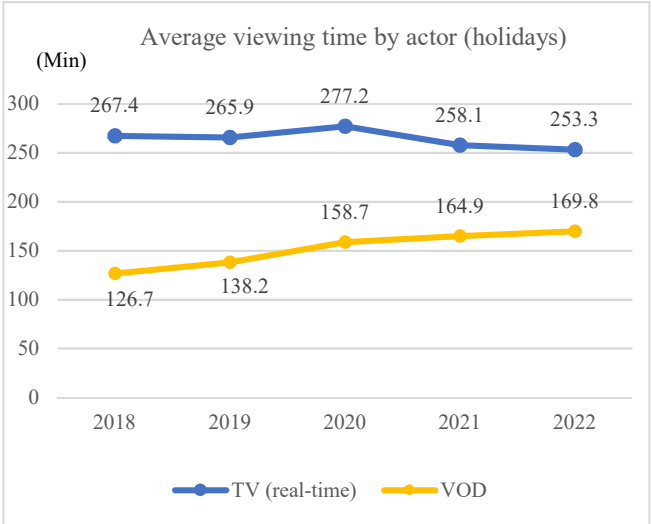
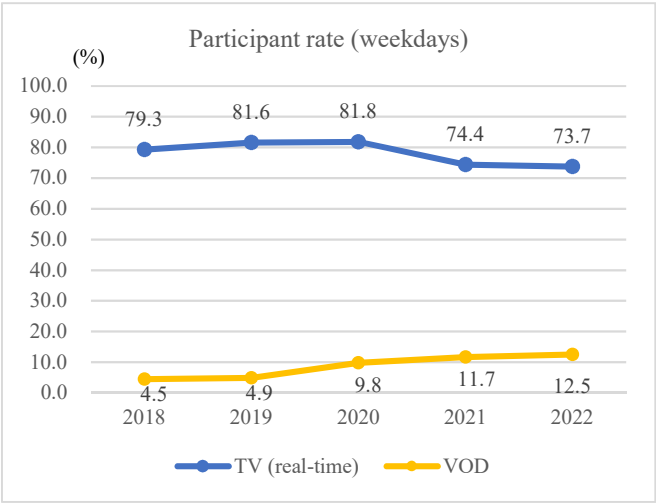
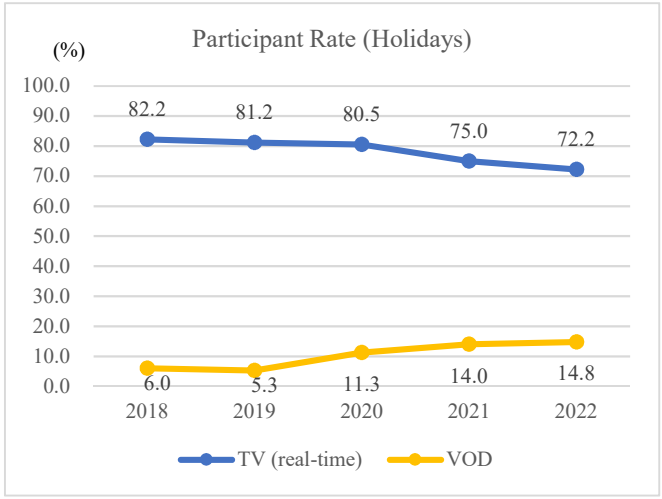


Chart 5-17 Rate of Participants (weekdays and holidays)[155]





(c) Viewing through DVD or Blu-ray

In terms of viewing video content, purchasing or renting and viewing as DVD or Blu-ray can also be evaluated as an adjacent market. According to a survey conducted by the Japan Video Software Association et al.[156], as shown in Chart 5-18, while VOD have

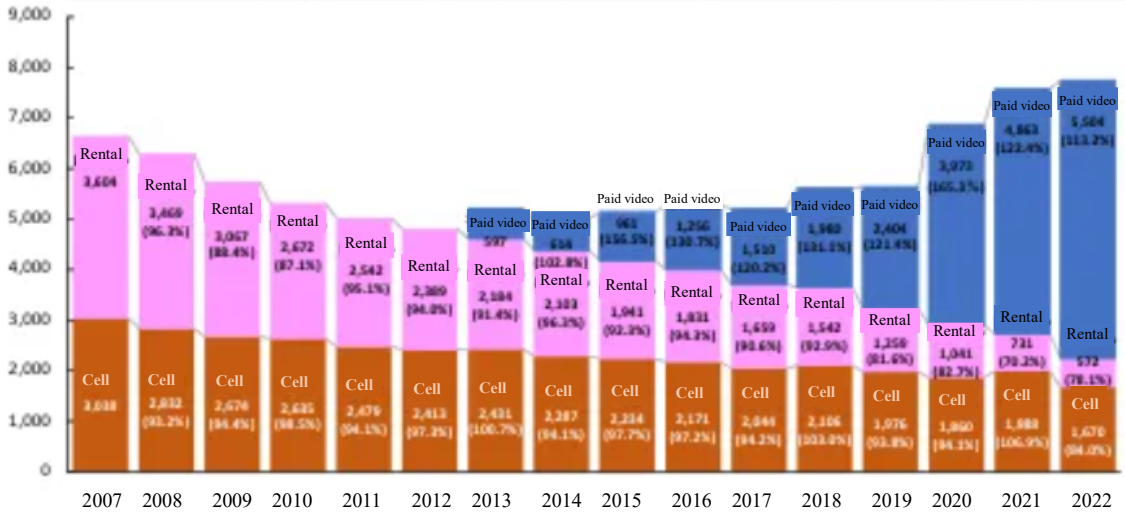
154 The total hours of TV viewing or VOD viewing per survey day divided by the number of participants, which means the average time limited to those who participated. For weekdays, the average time per day is obtained by dividing the total time of the relevant behavior for the two survey days by the number of participants for the two days, and for holidays, the total time of the relevant behavior on the survey day is divided by the number of actors on the same day.

155 For weekdays, the percentage of respondents who performed certain information-based behavior on each of the two survey days is calculated, meaning that the figure is the average of the two days. For holidays, the ratio is the ratio of survey days.

156 Japan Video Software Association, "Video Software Market Size and User Trend Survey 2022" (April

become widely used and the size of the market for DVD and Blu-ray purchases and rentals is shrinking year by year, a certain level of consumers is still using these products. In particular, given that the size of the market for DVD or Blu-ray purchases has remained at around 200 billion yen for the last five years, it can be inferred that there is still a certain level of demand[157] even though VOD has become widely used. According to the GEM Partners User Analysis Report, a comparison of VOD and DVD or Blu-ray usage rates by distribution type shows that although, as indicated by Chart 5-19, DVD or Blu-ray rental and purchase usage rates are decreasing year by year for all distribution types, there are still 5-20% of users who use DVD and Blu-ray, and especially the rental and purchase rates exceed the usage rate of VOD, indicating that there is a certain level of demand for DVD and Blu-ray. In light of the above, DVD or Blu-ray purchases or rentals are considered a viable means of viewing video content.

Chart 5-18 Market size related to video software (Unit: 100 million yen)[158]

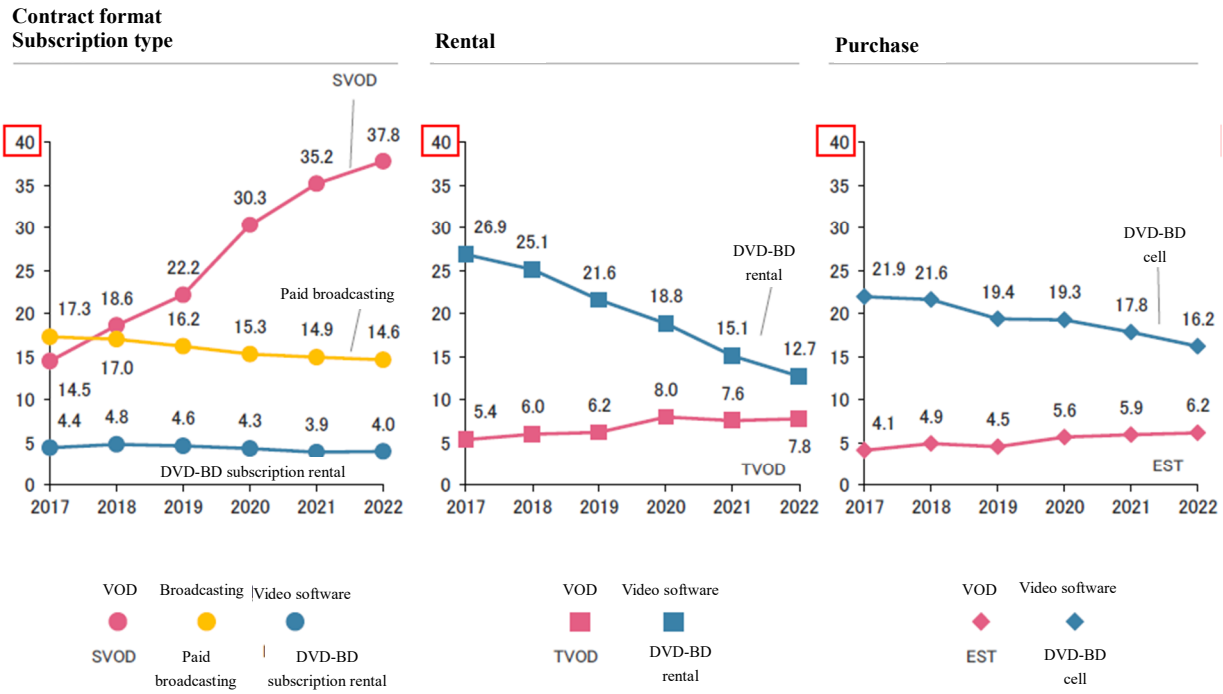


2023), Bunka Kagaku Kenkyusho Co.
https://www.jva-net.or.jp/report/annual_2023_5-2.pdf

157 In addition to video viewing, the demand is likely to be supported by, for example, purchase benefits and collection purposes.

158 Footnote 156 above Chart 1-1

Chart 5-19 Usage Rates by Delivery Type[159]

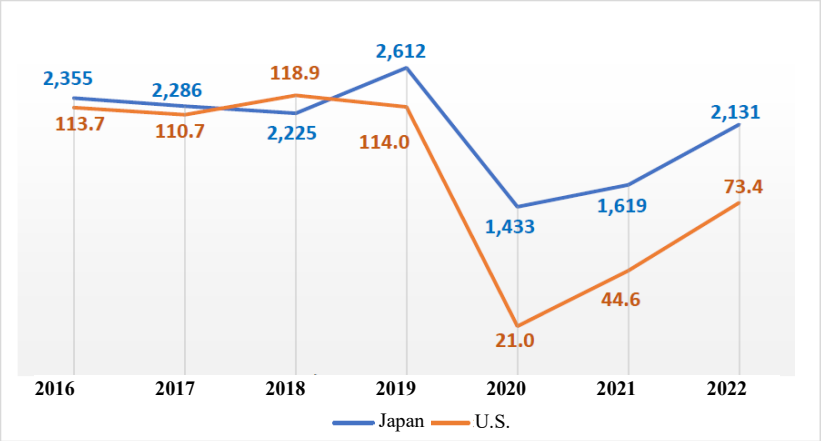


(d) Viewing at movie theaters

In addition, in terms of viewing video content, viewing content through VOD and TV broadcasting, as well as viewing movie productions in movie theaters can also be evaluated as adjacent markets. However, due to the fact that movie theaters were closed for a certain period of time during the COVID-19 pandemic, there have been cases where movies were distributed through VOD without being screened in movie theaters or in parallel with the screening period at movie theaters. As shown in Chart 5-20, at least in Japan, movie box-office revenues are on a recovery trend after initially plummeting due to the COVID-19 pandemic, and movie theaters are considered to be a viable means of viewing movie productions.

159 GEM Partners User Analysis Report, page 8
https://gem-standard.com/

Chart 5-20 Comparative chart of annual box-office revenue in Japan and the U.S. for the past seven years[160]



		2016	2017	2018	2019	2020	2021	2022
Japan	Box office (Unit: 100M yen) yne)	2,355	2,286	2,225	2,612	1,433	1,619	2,131
	Entrants (Unit:10K people) peole) yne)	18,019	17,448	16,921	19,491	10,614	11,482	15,201
U.S.	Box office (Unit:100M$)	113.7	110.7	118.9	114.0	21.0	44.6	73.4

Therefore, as mentioned above, video sharing services such as YouTube, TV broadcasting (terrestrial/BS/CS), DVD or Blu-ray, and movie theaters are all influential means for consumers to view the same or similar video content, and it is considered that a certain degree of competitive pressure arises from the adjacent markets related to such VOD.

(4) Competitive Pressure from Consumers for VOD

As shown in Chart 2-12 above, paid VOD (SVOD) generally charge around 1,000 to 2,000 yen, and as shown in 1(2) above, a certain level of consumers usually uses multiple VOD at the same time, suggesting a multi-homing tendency. Thus, consumers usually use multiple VOD in parallel, and it is relatively easy for them to switch between them.

In this regard, according to the consumer questionnaire, as shown in Chart 5-21, a certain number of consumers (17.3%) who are users of VOD(SVOD) have switched their SVOD, while the remaining consumers (82.7%) (82.7%) have never switched to an SVOD. However, when asked about the reason for this (i.e., why they continue to use a particular SVOD without switching), many consumers answered, "no particular reason," as shown in Chart 5-22. These results suggest that most consumers continue to use a particular VOD(SVOD) without any

160 Reference "Japan-U.S. Annual Box Office Revenue Comparison Chart for the Past Seven Years," in "2022 National Film Outlook," Motion Picture Producers Association of Japan, Inc. http://www.eiren.org/toukei/img/eiren_kosyu/data_2022.pdf

positive reason. In addition, as mentioned above, switching costs associated with SVOD are relatively low for consumers, and it is relatively easy for them to switch VOD. In this regard, according to the consumer questionnaire, the status of switching to an SVOD (including switching between the same VOD) in cases where a specific SVOD was cancelled within the last 3 months does not particularly suggest a certain bias in the service switched to, as shown in Chart 5-23, or confirm that switching to a variety of services is taking place. In light of these points, it is possible that competitive pressure from consumers is working to some extent.

Chart 5-21 Switching between paid VOD(SVOD)

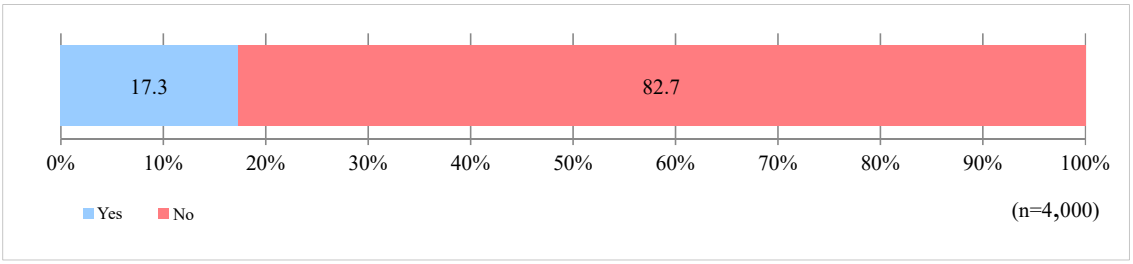


Chart 5-22 Reasons for continuing to use a particular paid VOD(SVOD)
(Multiple responses allowed)

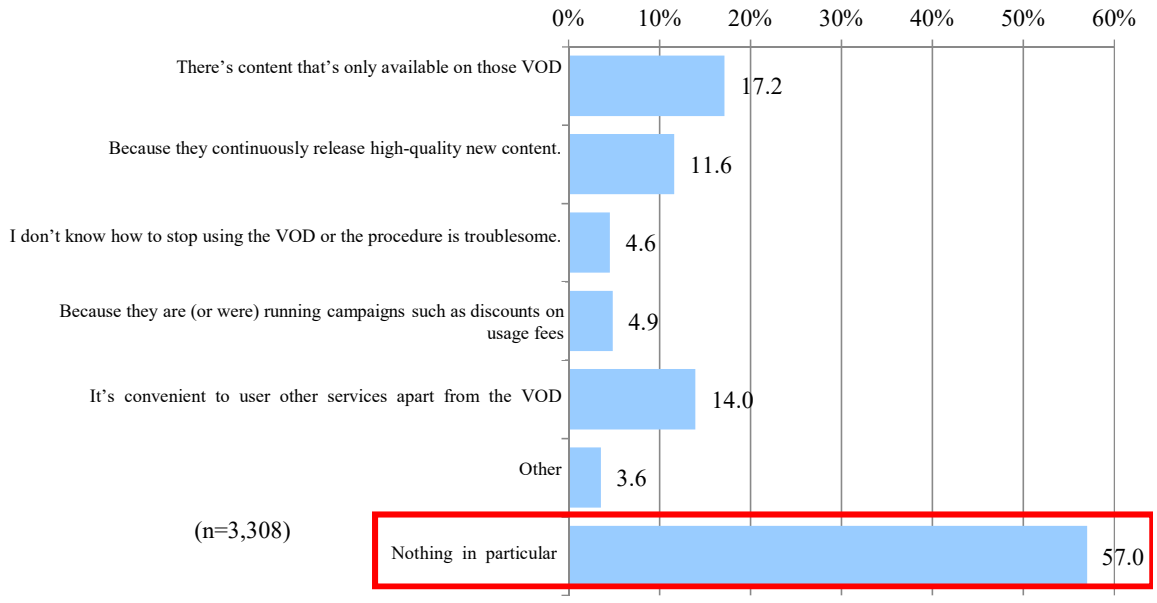


Chart 5-23 Switching between paid VOD (SVOD) (new subscriptions in the case of cancellations within the last 3 months)

	New contract / Cancellation	Amazon Prime Video	Disney+	Netflix	YouTube Premium	U-NEXT・Paravi	DAZN	Other than on the left	No new contract within most recent 3 months
1	Amazon Prime Video	57	15	22	15	6	9	94	12
2	Apple TV+	8	9	10	11	7	7	93	4
3	Disney+	20	25	23	16	10	8	96	16
4	Netflix	27	17	41	11	10	8	104	18
5	YouTube Premium	15	8	10	19	5	6	79	3
6	ABEMA Premium	11	6	12	11	8	6	94	7
7	Video Market	9	9	10	7	7	7	92	1
8	Lemino Premium (former dTV)/Hikari TV video service	8	8	9	8	7	7	96	2
9	Rakuten TV	7	8	8	7	7	7	85	2
10	U-NEXT・Paravi	20	12	16	9	16	7	96	18
11	Bandai Channel	10	7	11	8	7	8	84	1
12	Anime store	12	10	10	11	8	7	92	10
13	DAZN	9	9	11	8	8	7	95	7
14	FOD Premium	13	8	13	12	7	5	111	5
15	Hulu	15	9	12	9	10	5	89	18
16	NHK On-demand	8	8	11	8	7	6	97	3
17	TELASA	9	7	10	8	6	5	92	5
18	JCOM: On-demand	6	9	9	8	6	6	83	3
19	SPOOX (former SkyPerfect! On-demand)	8	7	8	6	8	8	94	2
20	WOWOW (On-demand)	9	7	8	6	10	8	96	6
21	Other	0	2	0	0	0	0	4	0
22	No service canceled in the past 3 months	235	39	125	27	47	17	160	1,407
	All	516	239	389	225	207	154	2,026	1,550

(5) Summary

In the VOD layer, while some VOD providers are emerging with a significant share of the market, currently, no specific service provider is in a monopolistic or oligopolistic position, and the environment is competitive to a certain degree. In addition, there is a certain amount of entry pressure from new entrants and a certain amount of competitive pressure from adjacent markets, as well as the possibility that a certain amount of competitive pressure is exerted by users (consumers). Given this state of affairs, VOD are not considered to be an oligopolistic market.

On the other hand, at the business interview, the following points were made regarding the current situation and future prospects, especially from the standpoint of content providers.

- There have in fact been cases of consolidation of VOD, termination of one VOD, and switching from one service to another. This is not limited to domestic VOD providers, and foreign-affiliated service providers also seem to have lost their initial aggressive investment stance and become more defensive.
- Only strong content will survive and the rest will be buried. We hear that paid broadcast channel operators and VOD providers are also having difficulty in organizing their services.Japanese people's tastes and preferences in video content favor popular content produced by ordinary people rather than content produced by

filmmakers and experts, and if they continue to watch such content on video-sharing services, we are concerned that VOD platforms will be eliminated in the future. The total number of users of VOD had been increasing steadily, but has now stagnated, and since companies are competing with each other, the cost of content procurement has skyrocketed in order to acquire users through various kinds of contents. Therefore, it is believed that we will see a further shakeout of VOD in the future.

- It is believed that mergers and acquisitions of VOD providers will continue, but I fear that if a particular VOD business becomes too large, it may become difficult for content providers to negotiate with them.
- It is possible, and concerning, that the VOD providers may buy us out in the future as VOD providers continue to be weeded out.

According to the consumer questionnaire, the usage status of each paid VOD (SVOD) in terms of new contracts, cancellations, etc., is as shown in Chart 5-24. SVOD with high market shares, such as Amazon Prime Video and Netflix, have a relatively high increase in the number of users. Although these results are for a specific time period and do not necessarily indicate a general trend, they do suggest a tendency for SVOD, which already have a high market share, to expand their user base.[161] Furthermore, quantitative analysis (logistic regression analysis, etc.) was conducted using the results of the consumer questionnaire survey regarding the tendency of cancellation or new contracts for SVOD. It was confirmed that the older the respondents were, the less likely they were to cancel their current SVOD. There are also trends showing that SVOD with a specific genre of contents may be more likely or less likely to be canceled. Therefore, if there is an increase in the retention of users who are less likely to cancel their contracts for VOD, such as older users or users who prefer a particular genre of viewing, there is a possibility that market share will become more concentrated in the future. As for Amazon Prime Video, it was observed that new contracts were statistically significantly more likely to occur when users considered another service, such as an online mall, to be useful in addition to video delivery. Therefore, there is a possibility of market share concentration due to the acquisition of users using services other than SVOD as leverage. All of these results suggest that market share may become increasingly concentrated in the VOD layer in the future.[162]

In light of the above points and analysis results, although the VOD layer is not a market prone to oligopoly, competitive pressure from adjacent markets, including video sharing services, and the market's growth cycle from a growth phase to a maturity phase may lead to the concentration of market share in certain service providers through business consolidation

161 A similar trend was observed for other VOD not listed in Chart 5-24.

162 For the results of these specific analyses, see [Reference] "Analysis of VOD Usage Using Consumer questionnaire Results" at the end of this report.

and other means in the future. In this case, the bargaining power of such operators may increase from the current level.

Chart 5-24 Usage of each paid VOD (SVOD)

	Continued use[163]	Not used[164]	New contract[165]	Cancellation of contract[166]	Number of increase/decrease[167]
Amazon Prime Video	1,163（52.5%）	748(33.8%)	285(12.9%)	20(0.9%)	265(18.3%)
Apple TV＋	26(1.1%)	2,222(97.5%)	11(0.5%)	20(0.9%)	-9(-24.3%)
Disney＋	160(7.1%)	2,005(89.0%)	59(2.6%)	29(1.3%)	30(13.7%)
Netflix	487(21.8%)	1,552(69.5%)	161(7.2%)	36(1.4%)	129(19.9%)
YouTube Premium	158(7.0%)	2,045(90.4%)	49(2.2%)	10(0.4%)	39(18.8%)
ABEMA Premium	87(3.8%)	2,116(93.5%)	41(1.8%)	19(0.8%)	22(17.2%)
VideoMarket	16(0.7%)	2,246(98.6%)	4(0.2%)	12(0.5%)	-8 (-40.0%)
U－NEXT・Paravi	148(6.5%)	2,005(88.5%)	67(3.0%)	46(2.0%)	21 (9.8%)
Bandai Channel	23(1.0%)	2,230(97.8%)	12(0.5%)	15(0.7%)	-3 (-8.6%)
dAnime Store	94(4.1%)	2,132(93.7%)	22(1.0%)	28(1.2%)	-6 (-5.2%)
DAZN	118(5.2%)	2,103(92.4%)	31(1.4%)	24(1.1%)	7 (4.7%)
FOD Premium	32(1.4%)	2,203(96.9%)	14(0.6%)	24(1.1%)	-10 (-21.7%)
Hulu	151(6.7%)	2,033(89.6%)	50(2.2%)	34(1.5%)	16 (8.0%)
NHK On Demand	59(2.6%)	2,180(95.9%)	23(1.0%)	12(0.5%)	11 (13.4%)
SPOX (formerly SKY Perf! (On demand)	17(0.7%)	2,234(98.2%)	10(0.4%)	15(0.7%)	-5 (-18.5%)
WOWOW On Demand	103(4.5%)	2,133(94.0%)	21(0.9%)	13(0.6%)	8 (6.5%)

163 Continuous use" refers to the number of respondents who responded that they are currently (as of the end of June 2023) using the service as a monthly or annual subscription-based SVOD and did not make a new contract within the last three months or that they cancelled their contract within the last three months. The number in parentheses is the number of such cases divided by the total number of respondents for each SVOD.

164 No use" refers to the number of respondents who did not respond to any of the following questions: those currently using (as of the end of June 2023), those who made a new contract within the last three months, and those who cancelled within the last three months, as monthly/annual subscription-based SVOD. The number in parentheses is the number of such cases divided by the total number of respondents for each SVOD.

165 New subscriptions" refers to the number of respondents who responded to the question if they are currently (as of the end of June 2023) using a monthly or annual subscription-based paid video service, and if they cancelled their contract within the last three months, and if they did not cancel their subscription within the last three months, if they made a new contract within the last three months. The number in parentheses is the number of such cases divided by the total number of respondents for each SVOD.

166 Cancelation" refers to the number of responses indicating that a SVOD (monthly or yearly fee) is not currently being used (as of the end of June 2023) and has not been newly subscribed to within the past three months but has been canceled within the past three months. The figures in parentheses represent the number of such responses divided by the total number of respondents for each SVOD..

167 The number of "increase/decrease" is the difference between "new contracts" and "cancellations" for each monthly/annual subscription-based SVOD. The number in parentheses is the number of such cases divided by the number of responses received for those currently (as of the end of June 2023) in use.

6. Competition Policy Considerations in Regard to the AMA

As mentioned in Section 5 above, it is considered that once an oligopoly develops in the TV OS layer of the layered structure for CTVs, it is likely to be maintained, and currently, Amazon and Google (hereinafter collectively referred to as "major TV OS providers") have the majority of the market share and it is likely that the influence of major TV OS providers will further strengthen in the future.[168] In addition, although the VOD layer is currently competitive to a certain extent, there is a possibility that market share will become more concentrated in the future through business integration, etc., and if a major TV OS provider takes advantage of its position as a TV OS provider to give priority to the VOD it provides (such action is hereinafter referred to as " preferential treatment"), it may be able to take advantage of this market share by offering its own VOD. In this case, the market share of the VOD provided by the business may increase, and the influence of the business in the market may increase.

Therefore, in this chapter, in order to create an environment in which consumers can continue to enjoy a variety of high-quality video content by ensuring a fair competitive environment in the distribution of content via VOD, we will summarize our views on actions that may be problematic under the AMA and actions desired by the parties concerned from a competition policy perspective (competition policy viewpoint).

In relation to the VOD layer, as described in section 5 above, similar issues to those surrounding transactions between VOD providers and content providers may arise for video sharing services, which are in the adjacent market to the VOD market. In light of the fact that issues similar to those that may arise in transactions between VOD providers and content providers may arise in the video sharing service market adjacent to the VOD market, and in order to ensure that creators and production companies receive appropriate consideration and transparency in transactions, and to maintain an environment where consumers continue to receive diverse and high-quality content, it is necessary to address the antimonopoly considerations regarding YouTube[169], which is provided by Google and appears to be the most widely used video sharing service, similarly to VOD.

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168 JFTC, "Guidelines Concerning Distribution Systems and Business Practices Under the Antimonopoly Act," Part 1,3(4).
A market share of more than 20% is considered to be a good indicator of whether a company is considered to be an influential player in the market. In the TV OS market, Amazon and Google have 40-50% and 20-30% shares, respectively, when calculated based on the number of units shipped in 2022, as described in Section 3-1(2) above, while Android (ATV/GTV) has 41.9% and Fire OS 26.6% shares, based on the use of TV OSs among consumers, Fire OS have a share of 26.6% respectively, Amazon and Google may be considered as leading operators.

169 As described in (2) (3) above, YouTube as a video sharing service has by far the largest number of users compared to other video sharing services as well as VOD (70 million monthly users in Japan and approximately 2.5 billion users worldwide), and it has been suggested that many users watch videos on their TV devices. As a result, it was decided to organize the AMA and the competition policy approach to YouTube among the video sharing services.

1 Actions Taking Advantage of Position in the TV OS Layer

According to the interviews with VOD providers, the adverse effects of the growing influence of major TV OS providers in the VOD market, which is currently competitive to a certain extent, include: ① concerns that competitors who provide other VOD may be excluded through their preferential treatment using their status as TV OS providers (hereafter referred to as (1)) and ② concerns that competitors may conduct unfairly disadvantageous acts against the other party to the transaction (hereafter referred to as (2)). Therefore, we shall present our views on these concerns with reference to the AMA and the competition policy below.

If a major TV OS provider excludes new entrants or existing competitors who provide TV OS or reduces their business opportunities by restricting device manufacturers from using other TV OS or from developing their own TV OS, it is considered a problem under the AMA (e.g., exclusionary private monopolization, exclusive conditional dealing, etc.). However, based on the results of the consumer questionnaire (Chart 5-1 and Chart 5-2 above), when selecting a CTV, consumers place more importance on the price of the device, the size of the TV screen, picture and sound quality, and TV manufacturer (brand) for smart TVs, and the number and type of services available for streaming devices, than the type of TV OS. For streaming devices, consumers place more importance on the number and types of services available. In addition, as shown in Chart 2-9 above, some device manufacturers are currently handling multiple TV OS at the same time, and as far as this survey has been able to ascertain, there is currently no evidence of any action to restrict the use of other TV OS.

(1) Exclusion of Competitors through Preferential Treatment

Major TV OS providers provide a TV OS, which is essential for using VOD on TVs, and also provide VOD themselves. Therefore, it is considered that the company may have an incentive to provide self-preferential treatment. Therefore, the major TV OS providers, which account for the majority of the TV OS market share, are in a position to exclude other competing VOD providers through their own preferential treatment using their position in the TV OS layer.[170] In addition, as mentioned in the above section 5.2(5), once an oligopoly develops in the TV OS layer, it is considered to be a market in which said oligopoly is likely to be maintained, and if the influence of major TV OS providers in the market increases in the future, the effect will be to exclude other competing VOD providers.

Among such preferential treatment, the following acts may be problematic under the AMA: ① preferential treatment in the display of rankings and recommendations, ② preferential treatment through the order of app placement and pre-installation, ③ restrictions on the

170 As a major TV OS provider, Google is in a position to exclude other competing video sharing service providers by using its position as a TV OS provider to give preferential treatment to YouTube, which it provides itself.

provision of competing VOD, ④ collection and use of data related to competing services and ⑤ preferential treatment of the company in the installation of remote control buttons.

(a) Actions that may cause problems

(i) Preferential treatment on ranking, recommendation display, etc.

(a) Comments from VOD providers

- On the home screen provided by one major TV OS provider, a list of VOD apps that can be viewed by searching for the name of the content is displayed, and although the order in which they are displayed is a black box, in many cases the TV OS provider's own services are given top priority.
- In the platform provided by a major TV OS provider, the way the content of the VOD provided by the TV OS provider is exposed and the content displayed in the advertising space, etc., show that the TV OS provider gives preferential treatment to its own VOD if the content is the same, and this is recognizably unfair.
- When a user searches for content on the TV OS of a major TV OS provider using the voice search provided by that provider, only search results for content related to services provided by that provider may be displayed.

(b) Views of major TV OS providers

[Amazon]

- If an app implements the universal search and browse function[171], its content will appear in the search results on the Fire TV home screen, even if the user has not downloaded the app or purchased a subscription to a VOD.
- The contents of various displays, such as recommendations, rankings, search results, and advertisements, are determined based on an algorithm set by our company. When a user searches for an app or content on the Fire TV OS, it will display multiple options, if available. In addition, if users have installed their own content or apps on the Fire TV, the display of those content and apps will take precedence.
- For example, for apps, users can search in the app store, select by app category or theme, etc. For content, if there are special features or promotional displays in the app store, users can use these. Our company considers a variety of factors in determining the apps that will be displayed including, for example, the relevance of the search content to the app name and metadata provided by the

171 Amazon, "Universal Search and Browse on Fire TV"
https://developer.amazon.com/ja/docs/catalog/getting-started-universal-search-and-browse.html

VOD provider, popularity of the content (ratings, reviews, etc.), user activity and personalization (such as "recently used apps" section), price, marketing, alignment with business strategy (e.g., highlighting of sports apps prior to TV broadcasts of popular sporting events, implementation of special promotions for game apps, etc.), as well as commercial interests and contracts(e.g., contract to list apps within promotional frameworks, etc.). In some cases (e.g., when content is prioritized for Amazon Prime members to watch for free as part of their benefits), certain of our services and content may be featured more than content distributed by other VOD providers.

[Google]

- The second comment does not apply to our TV OS (i.e. ATV and GTV). Content recommendations on ATV's "Discover" tab and GTV's "For You" tab are based on multiple factors (the user's country and language of residence, the popularity of the content, quality and relevance of the content, the streaming service selected by the user, user's prior interactions (e.g., content on watch lists and entertainment-related searches), editorial value of content (e.g., topical events such as sporting competitions), market-specific requirements, device type, advertising, etc.[172]) We do not give preferential treatment to content provided by our own VOD services when recommending content to users based on algorithms in the "Discover" tab of ATV or the "For You" tab of GTV.
- The first and third comments do not apply to our TV OS. Specifically, the display of user search results is designed to consider a wide range of parameters and provide the most relevant content for the user. Typically, content is ranked higher in search results because it is deemed most relevant to the user's query (keywords for search).
- The important point is that both users and video service providers can influence how recommendations are displayed, and rankings are determined. Users can receive more personalized recommendations by adding content to their watch list, telling us what content they want to watch or have actually watched, and rating content positively or negatively.[173] In addition, VOD providers can influence recommendations and rankings by telling us about the content

172 How Google TV and Android TV work https://support.google.com/googletv/answer/10267283?visit_id=638415304405534566-4095335573&p=gtv_consumer_info&rd=1

173 Google "displays recommendations that suit you." https://support.google.com/googletv/answer/10070483?hl=ja&ref_topic=10059389&sjid=4844226707378407308-AP

available in their apps.

(ii) Preferential treatment through app placement order and pre-installation

(a) Comments from VOD providers

- The details of the order of apps on the home screen can only be determined by the TV OS provider, but it appears that there are two parts: one part is determined by the logic (algorithm) set by the TV OS provider, and the other part is determined by the money paid by the VOD provider.
- The placement of app icons in positions that easily catch the attention of users on the home screen is important to encourage the use of our services, and various transactions, including the payment of commissions, are conducted in connection with the placement of app icons. However, since this is not an exclusive arrangement, there may be cases where there is no room for negotiation on the best placement because apps from TV OS providers, etc. are given priority. On the other hand, as a result of this preferential treatment, we have so far had no actual experience of our apps being placed in locations that are not easily seen by consumers.
- The VOD apps provided by the TV OS providers themselves are pre-installed and can be used immediately without the hassle of downloading the apps from the app store after signing in to the account of the provider, which is preferential and unfair treatment of their own services.

(b) Views of major TV OS providers

[Amazon]

- The user is free to change the arrangement of the apps displayed at the top of the home screen. In addition, with the consent of the app developer (including VOD providers), the developer's app may be placed in a location specified by said app developer.
- For user convenience, the Amazon Prime Video app is pre-installed, but users can pre-install their preferred third-party apps during the initial setup of their Fire TV device or download various third-party apps available on the Amazon Appstore after the initial setup is complete. The user can also download various third-party apps from the Amazon Appstore after the initial setup is complete.

[Google]

- The above comments do not apply to our TV OS. Specifically, the main purpose of the initial pre-installation and deployment of apps in our TV OS (ATV/GTV)

is to ensure that users receive an immediate, high-quality, and consistent user experience. In addition, users can download other apps in seconds and arrange them on the home screen in any order they wish. This means that users are ultimately free to customize the installation, removal, and deactivation of certain apps (i.e., they no longer appear on the interface, collect data, or run in the background), change the order in which apps appear, etc., based on their own preferences.

(iii) Restrictions on the provision of competing VOD

(a) Comments from VOD providers

- A certain TV OS provider has restricted us from providing the ability to purchase content within our VOD app on the TV OS provided by the said provider on the grounds that it competes with the business model of the said provider.

(b) Views of major TV OS providers

[Amazon]

- On Fire OS, it is possible to purchase contents in VOD apps.

[Google]

- As a TV OS provider, we do not restrict users of third-party VOD apps from purchasing in-app content. Our company, like other TV OS providers, offers a number of competing VOD apps that allow users to subscribe, purchase, or rent content. As a TV OS provider, we have not instructed third party VOD providers to charge users for in-app purchases of such VOD App installed on ATV or GTV, or whether such charges are allowed or not. It is the third-party VOD provider, not our company, that determines the business model for each app.

(iv) Collection and use of data related to competing services

(a) Comments from VOD providers

- The information, such as purchase history, linked to user accounts (IDs) on the TV OS side is known only to the TV OS provider, and it is possible to use this information to solicit VOD operated by the TV OS provider, which we feel is unfair.
- Basically, the number of users who have been transferred from the rankings (displayed on TV home screens, etc.) to our VOD app is not disclosed by the TV OS providers.

- Currently, there are no requests from TV OS providers for app-based viewing data that we are aware of.
- We have not had any problems due to lack of data provision from TV OS providers, as we are able to obtain the usage status of users within the VOD apps.

(b) Views of major TV OS providers

[Amazon]

- Amazon collects data from Fire TV users based on your agreement to the Amazon.co.jp Terms of Service, Amazon.co.jp Privacy Policy, Amazon Device Terms of Service (or Amazon Terms of Service for third-party products in which Fire TV is embedded), and other terms and conditions. Although there are various ways to utilize such data, and the methods may vary depending on newly developed products and services, our company may utilize the data to provide or improve its products and services, to identify and authenticate users, to communicate with users, to maintain and improve the safety and security of its products and services, and to prevent misuse.

[Google]

- The first point does not apply to our TV OS. Specifically, we will not use information from ATV/GTV user accounts to solicit our VOD unless it is necessary in the provision of our TV OS (ATV/GTV) and in limited circumstances where the user has given prior consent for other marketing uses.

(v) Preferential treatment based on the installation of remote control buttons

(a) Comments from VOD providers

- In the midst of the proliferation of VOD, it is difficult to find and launch an app from the home screen of a smart TV, so it is important to install an app launch button on the remote control. However, this would require a high price from the major TV OS providers, who also serve as streaming device manufacturers.
- The price (per unit) for installing an app activation button on the remote control set by one major TV OS provider is several times higher than that of other device manufacturers.
- We are aware that the major TV OS providers have requested device manufacturers to adopt the VOD, etc. of such TV OS providers on their remote control buttons as a condition for installing the TV OS and that only VOD, etc. approved by the TV OS providers may be used on the remote control buttons,

thereby negatively influencing consumer convenience.

(b) Views of major TV OS providers

[Amazon]

- Amazon has not instructed TV manufacturers not to allow other VOD to use their remote control buttons. In addition, when signing contracts with TV manufacturers and VOD providers, Amazon negotiates in good faith with each business and obtains consent from each business before concluding the contract.

[Google]

- The first and second points do not apply to us because we are not a CTV OEM. This is explained specifically below.
  - Regarding the first point, the limited space on the remote control inevitably limits the number of buttons for apps that can be installed on the remote control. However, it is not necessary for the apps of said provider to be installed as buttons on the remote control of the CTV device for the user to be able to discover the apps and/or content of the VOD provider. Content and apps from VOD providers can usually be found in the launcher of the user interface of the TV OS, by downloading the relevant app from the relevant app store. For example, TV OS providers offer content search tools to users to assist them in discovering apps and content from VOD providers.
  - Regarding the first and second points, we understand that it is normal market practice for CTV OEMs to monetize remote control buttons.
- The third point does not apply to our TV OS(ATV/GTV). Our company does not require OEMs to include buttons for third-party apps on their remote controls. There is also no approval on the remote controls of CTV devices that use ATV and/or GTV as to which VOD apps the CTV OEMs may include buttons for on their apps.

(b) AMA perspective

Based on (a) above, major TV OS providers are in a position to take the following actions by controlling their own TV OS or associated functions and services.

① Priority shall be given to content provided by the company's VOD, etc. by manipulating ranking and recommendation displays and displaying the results of the content search function.

②Preferentially displaying VOD apps, etc. provided by the company by manipulating the order in which VOD apps, etc. are displayed on the TV or by having specific apps pre-installed, etc.

③Restrict the provision of VOD that compete with VOD provided by the company.

④To collect a wide range of data on CTVs, such as content purchase history and viewing data on competing VOD, and to use such data for the development of VOD, etc. provided by the company.

⑤Installing a start-up button for a VOD app provided by the TV OS provider on the remote control of a device sold by the TV OS provider, while setting the price for installing a start-up button for another VOD app at a significantly higher price, , or preventing other VOD providers from installing app start-up buttons by restricting the contents of app start-up buttons installed on the remote controls of devices sold by other device manufacturers.

With regard to the concern that they are in a position to engage in such actions, as described in (a) above, among the major TV OS providers, Amazon may, in some cases, give priority to its own services with regard to ranking displays, etc., based on its own commercial interests, while at the same time, Amazon displays search results based on the relevance, popularity, price, frequency of use, etc. of the content, apps, and content installed on the device and the search results, and pre-installs its own apps for the convenience of the user, while allowing the user to freely place and download apps. The company claims that it pre-installs apps and takes user experience into consideration. Furthermore, regarding the collection and use of data, the company states that it obtains data from users based on their agreement to various terms of use, and uses the data to improve the safety of its services and for other purposes. In addition, the company states that it has not engaged in any of the practices pointed out by the VOD providers with respect to restrictions on the provision of competing VOD and the placement of remote control buttons, and that it has made decisions regarding the placement of buttons through good-faith discussions. Meanwhile, Google claims that it does not give preferential treatment to its own companies in terms of ranking display, etc., and that it displays information in consideration of its relevance to users. In addition, the company claims that pre-installation of apps, etc. is done with consideration of the user experience, and that the order in which apps are placed, can ultimately be freely customized by the user. Furthermore, with regard to the collection and use of data, the company will not use the data to solicit its own VOD without the user's consent. In addition, the report notes that the company has not engaged in any of the actions noted regarding restrictions on the provision of competing VOD, and that the concerns regarding the installation of remote control buttons do not apply to its own TV OS.

With respect to such claims, regardless of whether or not there is an intention of preferential treatment, if each of the aforementioned actions ① through ⑤ reduces the business opportunities of other competing VOD providers or excludes these providers, it will be a problem under the AMA. In particular, as stated in 5.2 (5) above, taking into account the characteristics of the market and the evaluation of the competitive situation, the TV OS layer is a market where oligopoly is likely to be maintained once it progresses, and if the oligopoly of major TV OS providers progresses further in the future and the above actions are taken, the effect of excluding other competing providers will be stronger. In addition, the fact that the purpose is to ensure security and protect the privacy of the consumer does not mean that the practice is not problematic under the AMA.[174]

In light of the above, if major TV OS providers, through the acts listed in (1) through (5) above, block transactions between other VOD providers and consumers by giving preferential treatment to their own VOD, thereby reducing business opportunities for other VOD providers or excluding these providers, this would be an issue under the AMA (e.g., private monopolization, interference with a competitor's transactions, etc.).

(c) Thinking Regarding Competition Policy

As discussed in 5.3 above, some businesses are emerging in the VOD layer with a certain degree of market share. On the other hand, at present, overall, there are no operators in a monopolistic or oligopolistic position, and there is a competitive environment to a certain degree. In order to maintain and promote competition in the VOD layer in the future, major TV OS providers that may use their position as a TV OS provider to give themselves preferential treatment that may adversely affect competition in the VOD layer in terms of ranking and recommendation display, content search functionality (including voice search through the Assistant function), results display, the order in which apps are placed on the home screen or the placement of the app launch button on the remote control, should disclose their criteria as much as possible and treat other apps that compete with their own apps based on the same conditions.

In addition, with respect to (b)(4) above, on the assumption of (a), major TV OS providers are in a position to collect data such as information associated with user accounts (IDs) on the TV OS side, using their status as a TV OS provider. If a major TV OS provider were to collect data related to other VOD, such as specific viewing times of content viewed on other VOD or data stored in watch lists, in addition to this data, it would be desirable to

174 In determining whether an act violates the AMA, it is necessary to comprehensively consider a variety of factors. In evaluating an act for the purpose of ensuring security or protecting privacy, it is necessary to consider the reasonableness of the purpose and reasonableness of the means (whether there are other less restrictive alternative means).

ensure that this data is not used for the VOD it provides, for example, by taking measures to block information between departments within the company.

(2) Acts that Unfairly Disadvantage the Counterparty to the Transaction.

As noted in section 5 above, the major TV OS providers have the lion's share of the market share in the TV OS layer. For these major TV OS providers, the demand for CTV is driven by the demand for VOD. In light of this, it is necessary for them to do business with various VOD providers in order to increase the number of users of their TV OS. On the other hand, for VOD providers as well, the need to do business with major TV OS providers tends to increase in order to distribute content to more users. In addition, as indicated in 5.1(1)(b), VOD providers are multi-homing with respect to TV OS, and in order to reach more consumers, it is essential to be compatible with any TV OS provided by the major TV OS providers, and therefore, the likelihood of changing business partners is also low. Furthermore, according to Chart 3-21 above, a significant number of consumers watch VOD on TV, especially SVOD, which have the largest market size among all VOD. In light of this, it is necessary and important for VOD providers to do business with major OS providers, especially TV OS providers, in terms of managing their business. In light of the above, a major TV OS provider can be found to have a prima facie case[175] that its own bargaining position is superior to that of the counterparty, the VOD provider. In addition, as mentioned in 5.2(5) above, the TV OS layer is considered to be a market where oligopoly is likely to be maintained once it progresses, and if the influence of the major TV OS providers in the market increases in the future, the probability that the major TV OS providers will be recognized as having a dominant bargaining position will increase further.

It is a problem under the AMA (abuse of a superior bargaining position) for a major TV OS provider that has a superior bargaining position to the other party to a transaction to use that position to unfairly disadvantage the other VOD provider in light of normal business practices.[176]

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175 “Guidelines Concerning Abuse of a Superior Bargaining Position under the AMA" 2.1 and 2.2 (excerpts)
“The superiority of one party to the transaction (A) over the other party (B) in terms of position in the transaction does not require market dominance or an absolutely superior position equivalent thereto, but only a relatively superior position in relation to the other party to the transaction. A is considered to hold a superior position over B if the continuation of transactions with A is crucial for B’s business operations to the extent that it would cause significant difficulties if disrupted. This would be the case when A makes requests or demands that are significantly disadvantageous to B, yet B has no choice but to comply. In making this determination, comprehensive consideration is given to factors such as B’s degree of dependence on transactions with A, A’s market position, the feasibility of B switching business partners, and other specific facts indicating the necessity of transacting with A.

176 “Guidelines Concerning Abuse of a Superior Bargaining Position under the AMA" 1, 1 (excerpt)
"If one party, whose position in a transaction is superior to that of the other party, uses its position to unfairly disadvantage the other party to the transaction in light of normal commercial practice, the other party to the transaction will be prevented from freely and voluntarily making its own judgment in the

Based on the actual conditions that we were able to ascertain through interviews with businesses and other means, the following is a discussion of (1) the collection of fees for in-app advertising and Amazon's policy change (to a new policy) regarding this, ②requests for the development of new functions, etc. and ③ requests for the use of Amazon's own billing system, as acts that may unfairly disadvantage the counterparty.

(a) Actions that may cause problems

(i) Collection of fees for in-app advertising

As noted in 4.8 above, Amazon is making policy changes and announced a new policy on June 7, 2023 (U.S. time) regarding advertising on CTVs. VOD providers that offer advertisement-supported Fire TV apps will distribute advertisements based on the new policy. According to the new policy, in countries where APS is not provided, such as Japan, from September 30th, VOD providers with advertisement-supported Fire TV apps that are used for more than 30,000 hours per month are required to provide Amazon with 30% of the total revenue generated from advertising in such apps after being contacted by Amazon in regard to the same[177].

In countries where APS is provided, in video service providers of ad-supported Fire TV apps that are used for more than 30,000 hours per month, after being contacted by Amazon, the said apps will be integrated with APS and 30% of the total number of ad impressions of the ad-supported TV apps will be provided to Amazon.

(a) Comments from VOD providers

[General Discussion]

- One of the major TV OS providers has been charging a certain percentage of its advertising revenues as a commission for advertising in its AVOD-type VOD outside Japan, and we are concerned that the terms and conditions will be changed to start charging such a commission in Japan as well.
- The commission rate of a certain percentage of advertising revenue charged by TV OS providers is very high compared to the commission rates set by advertising agencies. While advertising agencies provide a variety of services, including sales of advertising inventory, and other value-added services appropriate to their compensation, we do not believe it is logical for TV OS

transaction and the other party to the transaction will be at a competitive disadvantage in its relationship with its competitors, while the executing party will be at a competitive advantage in its relationship with its competitors. Such conduct is regulated by the AMA as abuse of a superior bargaining position, one of the unfair trade practices, because it may impede fair competition."

177 Currently, no cases of such communication have been confirmed in this survey.

providers to automatically collect a certain percentage of commissions as a revenue-sharing arrangement.

[Actions related to Amazon's new policy]

- We sincerely regret that the new policy was announced without prior notice. We recognize that the contents of this policy are not limited to VOD, but could also cover services other than VOD, such as music distribution services, etc. This is a situation that could shake the very foundations of business not only for us, but also for all companies that work with platform.
- The new policy will charge a fee for apps that include ads on Fire TV for such ad revenue, but if this idea is pushed forward, it could be charged for any other business model as well such as, for example, some ads played within smartphone apps.
- We understand that the commission on advertising revenues from VOD apps follows the business practice in the U.S. cable television industry, in which the cable TV side collects about 2 minutes per 15 minutes (i.e., less than 15%) of advertising space from each channel, but such a practice does not exist in Japan. In both the U.S. and Europe, the fee collection model in user billing by major platform operators has already been subject to very severe criticism and court decisions, and this collection model can be considered to be an extension of this criticized model to advertising. In light of these points, the charging of fees for advertisements such as this one should not be allowed.
- Even if we refuse to change our terms and conditions, we are effectively limited to two companies in the CTV field, Google and Amazon, and given the scale of these companies, we will not be able to easily sever our relationship with them.
- The 30,000 hours per month level is not a high hurdle requirement, and even new entrants to the market may be subject to this requirement, so this policy change could be a barrier to entry.
- The calculation of 30,000 hours per month is not indicated how it will be done on Amazon's side, which may lead to a sense of unfairness depending on how the calculation is done.
- Since having our apps on the platform is beneficial to the TV OS providers, it is necessary to consider this in the light of the interdependent relationship.
- Regarding the amount equivalent to 30% of advertising revenue stipulated in the policy, we recognize that it is different in nature from, for example, the 30% fee collected by the app store. The fees charged by app stores are

positioned as consideration for the billing system and security measures taken by app store providers on their behalf, and whether the fees are high or low, they receive a certain level of benefit. However, this time, the cost is only for gate management, so to speak, and it is difficult to evaluate it as being reasonable.

(b) Views of major TV OS providers

[Amazon]

- The new policy has been published for the entire world regarding advertising on Fire TV, and on June 7, 2023, we announced a new policy to provide a superior streaming service experience on Fire TV and to increase the number of users by content streaming service businesses, with the aim of increasing the number of users who use the most used Fire TV by our customers and based on the universal philosophy of working together with app developers to create a better Fire TV experience. The said policy will only apply to developers who reach certain thresholds and are contacted by Amazon. It is our understanding that the revenue sharing rate of 30 % stipulated by the policy, is comparable to the rate charged by other businesses in other countries.
- A brief explanation of the new policy was given to some developers.

[Google]

- The first and second points in the general discussion are not specifically applicable to our TV OS, even if they generally relate to our TV OS.
- Wedo not require VOD providers to allocate revenue from in-stream advertising (advertising that plays within such content while viewing video content) in order to distribute such third-party apps and services on the Company's TV platform.

(ii) Requests for development of new functions, etc.

(a) Comments from VOD providers

- A major TV OS provider is pushing us to develop new features (for example, unifying the search results display on CTVs with smartphones) within a limited period of time. However, from our perspective, we do not necessarily consider these features necessary. However, even when such features are developed, they may not be verified or released due to reasons on the part of the TV OS provider.
- One major TV OS provider has asked us to respond to changes in app specifications in response to changes in TV OS specifications in a short period

of time, although it is not mandatory. In addition, we were unilaterally notified that if we did not respond to this change in specifications, our apps would no longer be usable on the TV OS in question, although a certain period of time was set aside to respond to this change.

(b) Views of major TV OS providers

[Amazon]

- Typically, Fire OS updates do not require additional development work, so Amazon does not notify app developers in advance. However, in very rare cases, we may contact app developers in advance if they need to take action. In such cases, the developer is notified approximately one month in advance. However, if the update requires more man-hours, a longer notification period may be required.

[Google]

- Except in limited circumstances requiring urgent changes, we provide and explain multiple developer previews and beta versions of newly released AOSP (Android) to developers, including CTV OEMs and VOD providers, at least several months before the final release.
- Our company consistently provides appropriate and reasonable notice periods to stakeholders, such as CTV OEMs and VOD providers, prior to making significant changes to the AOSP (Android) or Google Play app policy (changes are also announced months before they go into effect). This is intended to give these partners sufficient time to adapt their apps and devices to the new specifications.
- However, it may not be practical to notify partners before making certain changes to the Android specifications. Such changes are typically not substantial changes (such as the release of a new version of Android), but rather incremental changes designed to ensure consistency across Android devices or to address security vulnerabilities. This type of update cannot be delayed waiting for CTV OEMs and VOD providers/app developers to respond. For example, security vulnerabilities need to be fixed immediately and, in any case, are unlikely to affect the performance of that device or VOD/app.

(iii) Request to use their own billing system

(a) Comments from VOD providers

- We understand the need to charge a settlement fee, but it is irrational to not allow separate choices on whether or not to use the billing system for smartphone and TV apps, even though the user experience is different between smartphones and TVs.
- The method for paying the settlement fee within smartphone and smart TV apps can only be selected from those on the respective platforms. After a change in the terms and conditions of one TV OS provider required the use of payment methods provided by that provider, the number of registered users via smart TVs became extremely low. We believe this is due to the complicated account registration process.

(b) Views of major TV OS providers

[Amazon]

- Our company does not provide an operating system for smartphones, so such comments do not apply to us.

[Google]

- Even if this comment is directed at Google, it does not apply to our company. Furthermore, regarding the second comment, no evidence has been provided to support the results.
- There are multiple ways for app developers to develop Google Play Store apps for smartphones and CTVs: ① by modifying existing apps (e.g. adding a TV user interface to an existing smartphone app or vice versa), (2) by developing new apps that cover both TV and mobile, and (3) by developing separate new apps for TV and mobile, respectively. (i.e., adding a TV user interface to an existing smartphone app or vice versa). While it is technically possible for app developers to set up different billing systems within the same app (e.g., between mobile and TV)[178], VOD providers must be able to independently build and maintain consumption tracking systems to match purchases from different billing systems to the user's account in order to assess whether the user has rights to the content.

(b) the AMA perspective

In light of (a) above, the major TV OS providers are in a position to do the following

178 Apps distributed through Google Play (e.g., mobile and TV) are subject to Google Play's policies (e.g., Google Play's payment policies).

① Unilaterally change the terms and conditions to require a provider of an advertisement-supported VOD (AVOD or advertisement-supported SVOD) to pay a significantly high fee for in-app advertising revenue, or to provide advertising spaces equivalent to such a fee for advertising spaces managed by such VOD provider, or to bear the cost of building a new system or other measures when providing advertising spaces.

②Unilaterally require VOD providers to develop new features for their VOD apps, which may offer little to no benefit to the providers, or to adapt to changes in the specifications of TV OS within a limited time frame.

③Unilaterally force a VOD provider to use its own billing system as a means of settlement for in-app billing by users of said provider's apps.

With regard to the concern that the major TV OS providers are in a position to engage in such conduct, as noted in a. above, with regard to conduct ①, Amazon argues that the new policy only applies to developers who meet certain requirements, and that the revenue sharing rate set forth in the policy is comparable to the rate charged by other providers, Google argues that the point is inapplicable because Google does not require VOD providers to distribute the revenue from in-stream advertising. In addition, with regard to ②, Amazon and Google claim that, except in cases of urgent necessity, they notify in advance when certain measures are required in conjunction with TV OS updates, and provide the necessary grace period or test versions of their products in advance. Furthermore, with regard to ③, Amazon asserts that this is not the case, while Google argues that there are multiple ways for app developers to develop Google Play Store apps for smartphones and CTVs, and that it is technically possible to set up different billing systems on different devices (e.g., between mobile and TVs).

With respect to such a claim, generally, in determining whether or not it constitutes abuse of a superior bargaining position (i.e., whether or not it is a case of unreasonably and in light of normal business practice causing disadvantage to other VOD providers who are the counterparty to the transaction), the following factors should be considered ① the relationship between the direct profit gained by the VOD provider from the services received through the payment of fees and the development of new functions or changes to the specifications of the app and the burden of the fees and app support costs (whether the burden is within the range considered reasonable in consideration of the direct profit), ② whether the basis for calculation and the content of the fees and other fees are reasonable and whether there are reasonable grounds to require such calculation and content, and ③ the number of VOD providers that have to accept the collection of fees, etc. in order to continue to use the platform related to the TV OS.

In light of these considerations, if a major TV OS provider whose trading position is superior to that of a VOD provider that is the counterparty to the transaction, takes advantage of that position to conduct any of the aforementioned acts ① through ③, thereby causing an unfair disadvantage in light of normal commercial practice, this would be an issue under the AMA (abuse of a superior bargaining position).[179]

(c) competition policy perspecyive

In determining whether or not the act described in (b) ① above constitutes abuse of a superior bargaining position, a comprehensive judgment shall be made, taking into consideration the method of determining fees, such as whether or not sufficient consultation was conducted with the VOD provider that is the other party to the transaction when setting fees, etc., as well as whether or not the fees are discriminatory compared to fees, etc. paid to other VOD providers, the situation of disparity between normal fees, etc., and the supply-demand relationship for VOD.[180] Therefore, from the viewpoint of preventing violations of the AMA, it is desirable for major TV OS providers, when collecting new fees from VOD providers, to consult sufficiently with the VOD providers regarding the collection of fees after clearly explaining what the fees are for and the basis for calculating the fee rate, etc. Additionally, in cases where additional measures, such as system changes, are required of VOD providers when collecting fees, a sufficient grace period should be provided from the notification of the need for such measures until such measures are required, to avoid excessive burdens on VOD providers.

In addition, with regard to the act described in (b) ③ above, as described in (a) above, VOD providers cannot separately choose whether to use the billing system of the main TV OS provider or not[181] for smartphone apps and TV apps, respectively. Therefore, if a VOD provider wants to provide a service that uses this billing system on the smartphone side, the use of this billing system is required for TV apps as well. In this regard, in light of the differences in device characteristics between smartphones and CTVs, the payment methods that are most convenient for users may differ.[182] It is desirable for major TV OS

179 With regard to act (3), if the use of in-app billing is unreasonably forced by prohibiting payment outside the app, it may be considered a transaction with restrictive terms and conditions, which may be problematic under the AMA(*As a similar approach, see the JFTC's "Report on Investigation of Trading Practices of Digital Platformers (Transactions between Businesses in Online Malls and App Stores)" (October 31, 2049), Part 2, Section 4, "3. Acts that may restrict the business activities of business partners" (3)b .)

180 JFTC, "AMA Perspective on Abuse of Superior Bargaining Position," 4-3(5)a (a).

181 In this case, it should be a reader app (see text).

182 When using the billing system of a major TV OS provider in a TV app, the user must register an account with the major TV OS provider by operating the TV remote control on the CTV side in advance. Therefore, it is considered more time-consuming for the user compared to the case where the TV app is used as a reader app and the user can purchase via other devices such as smartphones on websites outside the app.

providers to allow separate choices for using the TV OS provider's billing system or making the app a "reader app" (an app used exclusively for viewing video content purchased on a website or other platform, where users cannot purchase video content directly within the app) for smartphone apps and TV apps. Furthermore, if a VOD provider chooses to make their TV app a reader app, it is desirable for major TV OS providers to enable the streaming service provider to display QR codes or similar links on the app to facilitate easy content purchases through smartphones or other devices.

Furthermore, with regard to the aforementioned actions (b)① through ③, when major TV OS providers change rules or transaction details that may affect the earnings of VOD providers, this can be disadvantageous to VOD providers, so it is recommended to increase the fairness and transparency of transactions and ensure fair competition from the perspective of ensuring a fair competitive environment, by, for example, taking the following initiatives.

- The VOD providers shall be notified in advance of such changes, and the details of such changes and the rationale for such changes shall be provided, and sufficient explanation shall be given by responding to inquiries in an appropriate manner, etc.
- A sufficient grace period shall be allowed between the notification of such changes and the time when such changes become effective.
- If reasonable opinions are received from the relevant business operators regarding such changes, such opinions shall be taken into consideration as much as possible, and sufficient discussions shall be held with the relevant business operators.

2 Acts by VOD providers, etc.

As described in section 5 above, in the VOD layer, while some VOD providers are emerging with a certain degree of market share, currently, as a whole, no particular business is in a monopolistic or oligopolistic position, and the environment is competitive to a certain degree. On the other hand, it is important to ensure a fair competitive environment in the VOD layer so that consumers can enjoy diverse and high-quality video content in the future, especially in the face of the possibility that the market share of certain VOD providers will become more concentrated due to the ongoing shakeout of services through business integration, etc.

In addition, as stated in the introduction of section 6 above, in relation to the VOD layer, it is important to ensure a fair competitive environment with respect to transactions with content providers from the same perspective for YouTube, a video sharing service.

Below, we shall present our views based on the AMA and the competition policy in regard to ① issues related to the price of content and ② other issues related to VOD based on the actual conditions we have ascertained through interviews with business operators.

(1) Issues Regarding Consideration for Content, etc.

(a) Actions that may cause problems

(i) Establishing the consideration for the content

(a) Comments from content providers

- Currently, competition for VOD is fierce, and VOD providers tend to prefer exclusive distribution in particular, and the prices offered are significant. However, since we believe that exclusive distribution is not necessarily the optimal solution, we often take the form of providing our video content to many VOD as non-exclusive distributions. There are also options for distribution formats, such as prior distribution of specific content only to certain VOD. We have negotiated with VOD providers to determine the type of distribution method to be used.
- The consideration is not low, but relatively high, among foreign VOD providers.
- In the case of a contract with only three or so on-demand service providers, a VOD provider that is highly motivated to acquire works may offer better terms if we inform them that their prices are lower than those of other companies. If we deem the terms to be insufficient, we may refuse to provide the work.
- We are currently free to choose whether or not to sell our content to VOD providers, and we have been able to negotiate the contract amount.
- However, there has been a trend toward consolidation of VOD even in the past year, and as content providers, we are concerned that in the event of a shakeout of VOD in the future, the remaining strong VOD providers may undervalue or underpay for our content.

(b) Views of VOD providers

- The distribution license fee is determined after careful consultation with content providers.
- The factors that affect the contract amount with content providers include whether the distribution is exclusive or not, and the length of the distribution period. Basically, it is a seller's market for content providers, and there is no situation where VOD providers can choose between flat type contracts and revenue-sharing contracts.
- The number of VOD providers has been increasing, and we feel that the unit price of works has been rising.
- Content that is viewed frequently is displayed in the recommendations section and rankings of our distribution service, and contracts are renewed while maintaining high distribution license fees. We would like content providers to judge whether or not their content is being viewed by users of our services from this perspective.

(ii) No sharing of viewing data, etc.

(a) Comments from content providers

- Although we are not pressured by VOD providers in the contract negotiation process, they do not provide us with information that we would like to obtain from the viewpoint of marketing, etc. In the case of a flat-type contract, when we receive information that there have been more views than expected, we are unable to verify whether the content pricing was appropriate. If information such as the number of views is provided to us, for example, we will be able to negotiate better terms for the next work.
- Our company has no figure basis for the contract, and is forced to negotiate for contract renewal while receiving only verbal feedback from the VOD providers that this content is frequently viewed.
- In the case of a flat-type contract, no data is presented as a basis for the contract amount, so the company negotiates the amount without having a basis for judging the value of its content.
- In the case of a revenue-sharing type contract, the VOD provider pays based on the number of views, etc. However, in the case of a flat type contract with no data provision, it is difficult to judge whether the amount of money is commensurate with the work.
- The content providers do not receive any data on what kind of content is most frequently viewed on their VOD platforms. On the other hand, VOD providers do not request the data in the hands of content providers either.

(b) Views of VOD providers

- Regarding the extent to which content viewing data is provided to content providers, the figures necessary to calculate compensation in the case of revenue-sharing type contracts, such as viewing time and number of members, are provided to content providers. On the other hand, in the case of a flat-type contract, the aforementioned data is also a trade secret, so the data is not specifically provided unless specifically determined in the contract.
- Regarding the external provision of viewing data, in the case of revenue-sharing type contracts, it is necessary for the calculation of the consideration, so it is provided to content providers as evidence in the form of statistical data in which individuals cannot be identified. In the case of flat type contracts, such data is basically not provided since it is outside the scope of the contract, and is only provided if the content provider wishes to use the data for content production.

(iii) Distribution of advertising revenue on YouTube

(a) Comments from content providers, etc.

- The cost per advertisement on YouTube is extremely low.
- YouTube has the advantage of being a platform that can be used as a promotional tool for its 70 million active users (in Japan), but the distribution of advertising profits to content providers is small and not very profitable.
- It seems to us that the distribution of advertising revenues on YouTube is not in our favor. However, we think that Google provides excellent analytics, and so this is consideration for using their services. We view YouTube primarily as a promotional tool, and we are satisfied if we can receive even a small amount of advertising income.
- Regarding the opinion that YouTube's advertising revenue has dropped, it is common in the advertising industry for the revenue rate to drop due to external factors such as seasonal factors and disasters, even if the number of video views itself is about the same as the previous month. In addition, as the absolute number of those receiving revenue sharing from YouTube increases, each will tend to receive less revenue.
- The information provided by YouTube, such as viewer age, gender, viewing region, device used, and revenue rate of video content, is provided in an easy-to-understand, visual dashboard format, and frankly, I am impressed by how well they provide this information.
- Since YouTube's overall advertising revenue is not disclosed, there is no way to examine whether the payment offered is really reasonable.
- We have been proceeding without any particular problems, including negotiations with Google regarding the consideration.
- The consideration per unit is not inferior to that of similar services to YouTube. They have been responsive to our requests to a certain extent, and we currently have no problems with the economic conditions.

(b) Google's view

- YouTube shares advertising revenue from advertisements displayed on regular YouTube and YouTube Shorts with YouTube users (creators) who participate in the YouTube Partner Program. Creator revenues depend not only on the percentage of advertising revenue received, but also on the denominator (i.e., the revenue pool to which the revenue sharing ratio applies), the size of which also depends on (among other things) (i) the number of advertisement impressions and clicks and

(ii) the amount the advertiser is willing to pay for them.

- The share of advertising revenues received by YouTube reflects the significant costs of operating YouTube, as well as the indirect value YouTube provides to creators through marketing and promotion of the YouTube platform. This contributes to YouTube's growing appeal to both viewers and advertisers, which in turn boosts views and creators' revenues.
- The distribution rate for advertising revenue from advertisements displayed on regular YouTube and YouTube Shorts is recognized to be equivalent to the distribution rate applied in other similar services. Such revenue sharing is applied globally, including Japan, and has not been changed since its introduction.
- As publicly announced, the creators' portion of receipts on YouTube is as follows:
  - ○ From advertisements displayed or streamed in regular YouTube videos
    55% of revenue[183]
  - ○ 45% of revenue from advertisements displayed on YouTube shorts[184]
- The distribution of these advertising revenues is not inferior to the share that competitors are said to be offering content providers[185] and is highly transparent.
- In addition, creator profitability is determined by many factors, including creator costs, and many creators on YouTube are in fact profitable.
- In particular, with regard to the fourth comment, in addition to the transparency of our allocation of advertising revenue to creators, YouTube's annual global advertising revenue is also published by the U.S. Securities and Exchange

183 Google, "YouTube Partner Revenue Overview."
https://support.google.com/youtube/answer/72902?hl=ja&sjid=7811845563277122481-AP
Google, "Video Ad Format Overview."
https://support.google.com/google-ads/answer/2375464?hl=ja&sjid=7811845563277122481-AP

184 Google, "YouTube Partner Revenue Overview."
https://support.google.com/youtube/answer/72902?hl=ja&sjid=7811845563277122481-AP
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https://support.google.com/youtube/answer/12504220?hl=ja&sjid=17806141912072780480-AP#zippy=%2Cdo-creators-actually-get-to-keep-of-shorts-revenue

185 Twitch reportedly has a 50:50 split.
Twitch, "A Letter from Twitch President Dan Clancy on Subscription Revenue Shares" (September 21, 2022).
https://blog.twitch.tv/en/2022/09/21/a-letter-from-twitch-president-dan-clancy-on-subscription-revenue-shares/
TikTok reportedly offers 50% of its advertising revenue to top creators .
TubeBuddy, "TikTok Rolls Out 50% Ad Revenue Share for Top Creators" (May 10, 2022).
https://www.tubebuddy.com/blog/tiktok-ad-revenue-share/
Meta reportedly provides 55% of the revenue generated from Facebook Reels to its creators.
Insider Intelligence, "Meta adds more ads to Facebook Reels, plans revenue split with creators" (October 10, 2022).
https://www.insiderintelligence.com/content/meta-adds-more-ads-facebook-reels-plans-revenue-split-with-creators

Commission.[186]

(b) the AMA perspecyive

As mentioned in 5 above, the VOD layer is a competitive environment to a certain degree. With regard to negotiations over the consideration for content, given the large number of VOD providers in the market and the comments made by the content providers in (a) above, it is hard to reach the conclusion that content providers are currently being forced to purchase content from VOD providers with extremely low consideration.

However, as indicated in 5.1(2) above, in order to reach more consumers, content providers are required to support any of the major VOD such that they have a certain market share, and the number of such VOD is limited (see 3.2(3) above). Under such circumstances, it would be practically difficult to switch to doing business with other VOD providers. Therefore, it is vital to do business with major VOD providers that have a certain market share, and the possibility of changing business partners is not high. In addition, in light of the fact that the number of users of VOD has been increasing rapidly in recent years in the wake of the COVID-19 pandemic, and that the usage rate in FY2022 is 52.1%[187], it is necessary and important for content providers to work with major VOD providers, particularly in terms of business operations. In light of these factors, the major VOD providers may have a superior bargaining position over the counterparty to the transaction, the content provider. Furthermore, if VOD are eliminated in the future through consolidation, the market share of certain VOD providers may increase significantly. In such a case, the necessity for the content provider to do business with the VOD provider will increase, it will become more difficult for the content provider to change its business partner to another VOD provider, and the VOD provider's bargaining position may become superior to that of the content provider. The possibility of the VOD provider's bargaining position becoming superior to that of the content provider as a counterparty to the transaction is expected to increase.

In addition, as described in the section 2 and section 3 above, YouTube has a huge and strong user base, and Google may have a superior bargaining position in transactions involving YouTube, at least in relation to content providers that rely on the distribution of their content through YouTube for their own business. As described in (a)(iii) above, some operators have pointed out that the distribution of advertising revenue is inadequate or unfair with respect to YouTube in this way.

186 Alphabet Inc.'s Annual Report for 2022
https://www.sec.gov/Archives/edgar/data/1652044/000165204423000016/goog-20221231.htm

187 See 1(1) above.

In response to this point, Google states that advertising revenue depends not only on the revenue sharing rate but also on the revenue population to which the revenue sharing rate is applied, and that this revenue population is dependent on the advertiser's willingness to pay. The report also points out that the share of advertising revenue retained by Google is not inferior to the distribution rates applied by other companies for similar services, is publicly disclosed and transparent, and that many creators are actually making a profit. Furthermore, the company claims that such advertising revenues reflect the significant costs of operating YouTube.

In light of the above, if a VOD provider (or video sharing service provider) that has a superior bargaining position over the counterparty uses that position to unilaterally set significantly lower consideration for content to the content provider—its counterparty in the transaction—and thereby causes unfair disadvantage in light of normal business practices, this is considered an issue under the AMA (abuse of superior bargaining position). In making this judgment (whether or not the content consideration is set unilaterally at a significantly low level), the method of determining the content compensation should be taken into consideration, including whether sufficient consultation was conducted with the content provider, the counterparty in the transaction, when setting the compensation. In addition, whether the content consideration is discriminatory compared to the content consideration for other content providers, the situation in terms of discrepancy from normal content consideration, the supply-demand relationship for video content, and other factors shall be taken into account in making a comprehensive judgment.[188]

(c) competition policy perspecyive

Based on the points raised by the content providers with respect to issues surrounding the consideration for content with VOD providers, VOD providers are in a position to take the following actions in the VOD layer.

- Not to disclose or to disclose only to a limited extent to content providers, information regarding the status of viewing by users (number of times viewed, viewing time, etc.), which could be the basis for consideration for content.

As described in b above, in determining whether or not a fee, etc. constitutes abuse of a superior bargaining position, a comprehensive judgment shall be made, taking into consideration the method of determining the fee, etc., including whether or not sufficient consultation was conducted with the VOD provider that is the counterparty to the transaction when the fee, etc. was set, as well as whether the fee, etc. is discriminatory in

188 JFTC, "AMA Perspective on Abuse of Superior Bargaining Position,"4-3(5)a (a).

comparison with fees, etc. charged to other VOD providers. Therefore, from the perspective of preventing violations of the AMA, it is desirable that the consideration for content be determined through sufficient negotiations between VOD providers and content providers. Therefore, VOD providers should provide information related to viewing status by users for the relevant content to the extent necessary for appropriate negotiations on consideration at the time of contract renewal, not only in the case of revenue-sharing type contracts but also in the case of flat type contracts, or for contracts for series works or similar works, etc. It is desirable to provide such information to the extent necessary for appropriate negotiation of consideration.

(2) Other Issues Related to VOD, etc.

(a) Actions that may cause problems

(i) Establishment of fees for VOD

(a) Comments from VOD providers

・The monthly fee for a certain VOD is at a level that, from our point of view, there is no way the service can be operated at that rate. They may be making up for their losses with sales in areas other than VOD, but from the perspective of operators competing only with VOD, it is thought that undercutting competitors with excessively low prices leads to unhealthy competition.

(b) Views of VOD providers

・The fee for memberships that provide VOD as a benefit reflects both the value provided to the user and the cost of providing these benefits. The fee is determined based on these perspectives.

(ii) Combination of VOD and another service

(a) Comments from content providers

・A certain VOD is acquiring users through services other than VOD, and we feel that this is not a fair means of competition.

(b) Views of VOD providers

・Our SVOD is not a stand-alone VOD, but part of the membership benefits for its members. However, on certain CTVs, it is accessible even to non-members of the program.

(iii) Changes in services, rules, etc.

(a) Comments from content providers

- For a certain VOD, while it was not explicitly denied in the contract and does not constitute a breach of contract, there was a situation in which a new fee plan was introduced without any prior notice, and we only learned about the start of the plan through a third party who pointed out the plan immediately before it started.
- Our company has not experienced any issues arising from conflicts between tie-ins within works and advertisements inserted into them. However, at the level of individual actors rather than works, there is a possibility that advertisements conflicting with those promoted by the actors may be shown. Therefore, we sometimes extend a courtesy to the actors in advance.
- Our company discuss in advance with content rights holders whether it is acceptable to distribute content with advertisements, including the possibility of running advertisements that compete with contract sponsors provided by terrestrial broadcasting and contract sponsors of the performers, and if the rights holders give their permission, the content is distributed with advertisements.
- We have regular discussions with VOD providers and we are not unilaterally notified of changes to the terms and conditions.
- Recently, there have been changes to the terms and conditions regarding the monetization of short videos and the introduction of remix features, and while it is not easy to comply with these changes due to the various adjustment costs involved, we are troubled by the current situation where the terms and conditions are unilaterally changed.
- As for YouTube, although sudden changes in terms and conditions occur frequently, explanations are provided by the Japanese subsidiary. While it is a fact that we are troubled by the sudden need to respond, we accept this as being unavoidable.

(b). Views of VOD providers, etc.

- Various service plans are provided based on the user experience of video viewing, and when changing plans, depending on the content, we notify users in advance and responds to their inquiries, as well as discusses both monetary and value aspects of the plan with content providers.
- We make every effort to provide reasonable notice to YouTube users of significant changes to services or Terms of Service that may adversely affect their use of YouTube. Specifically, users are generally notified of these changes approximately one month in advance.

(b) AMA perspective

Based on what some business operators have pointed out as issues surrounding VOD, etc. (a. (a) and (b) above), VOD providers are in a position to carry out the following actions.

① Continuously charge a fee for VOD that is significantly less than the cost of providing the service.

② Offering VOD in combination with other leading services other than VOD provided by the company.

With regard to the concern that they are in a position to engage in such acts, the VOD provider in question asserts, as mentioned above, that itsVOD, while offered as part of the benefits for members of its membership (subscription-based program), is also provided as an independent service accessible on certain connected TVs, even to non-members of the program. It is also asserted that the fees for such memberships are set based on both the value provided to users and the cost of providing user benefits.

In regard to these claims, Chart 2-12 above shows that VOD are generally priced at around 1,000 to 2,000 yen, although some services are continuously offered at prices lower than that amount. Some of the VOD are also offered in combination with other services provided by the company.

In this regard, if a VOD provider continuously sets a fee that is significantly lower than the cost of providing the service as a usage fee for the VOD (see (1) above), which is likely to make the business activities of other VOD providers difficult[189], it is a problem under the AMA (unjust low price sales, etc.)[190]

In addition, with respect to providing VOD in combination with other leading services other than the VOD provided by the company (see (2) above), if a leading business operator in the market for other services induces the other party to the transaction to purchase VOD

189 “Guidelines Concerning Unjust Low Price Sales Under the AMA" 3 (a) (excerpt)
The term "likely to make business activities difficult" does not require that business activities actually become difficult, but is intended to include cases where there is a concrete possibility that such an outcome could occur based on various circumstances (Note 9).
(Note 9) For example, if a leading business operator, with the intention of excluding other business operators, sells at a lower price than its variable costs, resulting in a sudden increase in sales volume and leading the market in terms of sales volume, even though the individual business operator may not be deemed to be currently in business difficulties, it may still fall under the category of "likely to cause difficulty in business activities.".
"Costs with variable characteristics" is defined in the same approach as "Costs that increase or decrease in accordance with changes in the supply of the goods to be sold at a discount or costs that are closely related to the supply of the goods to be sold at a discount" In the context of VOD, this could include, for example, the costs required for purchasing content or the costs associated with increasing distribution capacity.

190 In addition to this, if a company supplies goods or services at an unreasonably low price and is likely to make it difficult for other businesses to conduct their business activities, this is also a problem under the Antimonopoly Act (General Designation, Paragraph 6).

in conjunction with the supply of such services, thereby reducing the business opportunities for other VOD or excluding such services, there may be a problem under the AMA (tying, etc.).[191],

© Competition policy perspective

As for issues surrounding VOD, in light of the points raised by business operators and the views of VOD providers, as described in (a)(iii) above, although a certain degree of prior explanation and consultation is provided to content providers when services or rules are changed, the response of VOD providers is considered insufficient in some cases, as is described below. However, as shown below, there are cases where the response of VOD providers is judged to be insufficient.

① There is a lack of prior explanation or consultation, despite the possibility that changes in the business model of the VOD, such as new display of advertisements on the VOD, may cause conflicts of interest among advertisers and impede the business operation of the content provider, such as a decrease in advertisers and other factors that may cause a decline in revenue at the content provider.

② There is a lack of prior explanation or consultation, despite the fact that changes in rules and transactions pertaining to VOD, such as the introduction of new functions to VOD, etc., may cause content providers to incur costs such as those in coordination with interested parties.

Given that in such cases, additional measures and costs may be incurred by content providers, from the perspective of enhancing fairness and transparency of transactions and ensuring a fair competitive environment, when making changes to services, rules, etc., including the actions described in ① and ② above, the following is desirable

- The relevant businesses shall be notified in advance of such changes, and the details of such changes and the rationale for such changes shall be provided, and sufficient explanation shall be given by responding to inquiries in an appropriate manner, etc.
- A sufficient grace period shall be allowed between the notification of such changes and the time when such changes become effective.
- If reasonable opinions are received from the relevant businesses regarding such changes, such opinions shall be taken into consideration to the extent possible, and sufficient discussions shall be held with the relevant businesses.

191 As mentioned in the 2.2 above, VOD are offered to consumers as a single independent service their own right.

7. Conclusion

In the "Market Study Report on Mobile OS and Mobile App Distribution" published in February 2023, it was stated, "in the future, a new ecosystem centered products or services other than smartphones may be formed. The JFTC pays close attention to trends related to such new ecosystem, and conducts market studies as necessary to clarify issues on the AMA and competition policy while taking consumer interests into consideration." In light of the fact that with the increase in the use of VOD and the recent spread of CTVs, TV OS are positioned as the foundation for providing services to users on CTVs, that the major TV OS providers have the majority of the market share, and that various rules and specifications (including billing systems) can be applied when licensing TV OSs, it can be said that the major TV OS providers are forming an ecosystem in the CTV-related field, centering on TV OS. This study also highlighted concerns that major TV OS providers could leverage their position to influence other markets, such as VOD, by excluding competitors through preferential treatment (as mentioned in 6.1), thereby building and expanding their ecosystems.

In light of this situation, this study aimed to establish an environment where consumers can continue to enjoy diverse and high-quality video content by ensuring a fair competitive environment for the distribution of content via VOD. etc. Recognizing that once oligopolization progresses, it tends to persist, and that the influence of major TV OS providers in the market is likely to grow further in the future, the study examined the TV OS market, where such tendencies are evident, as well as the VOD market, which, while currently somewhat competitive, may experience increasing market share concentration through business integration and other means. From the perspective of competition policy, the study clarified the principles regarding conduct that could raise concerns under AMA and the expectations for efforts from related parties. The JFTC will disseminate the contents of this report to all parties involved in CTV-related fields, including TV OS and VOD providers, in order to realize the measures that are considered desirable in terms of competition policy, as well as to prevent the antimonopoly problems identified in this report. In addition, we will continue to actively work in coordination and cooperation with related ministries and agencies to ensure a fair competitive environment.

In addition, the JFTC will continue to closely monitor the state of competition in the CTV-related field, including the application of the new policy regarding the collection of fees by Amazon (Section 6.1(2) of this report), and if the JFTC comes into contact with specific cases that raise issues under the AMA regarding TV OS providers and VOD providers, including the antimonopoly issues raised in Section 6 of this report, the JFTC will utilize the knowledge gained from this investigation and take strict and appropriate action.

Additionally, global digital platform operators' business activities have drawn significant attention and concern from competition authorities worldwide. The JFTC will continue to exchange views with competition authorities in various countries and regions at various levels, and will also take the

initiative in sharing awareness of issues and findings from this study, while utilizing forums such as the International Competition Network (ICN) and the Organization for Economic Cooperation and Development (OECD), and will continue to work with relevant overseas authorities to improve the competitive environment.

[Reference] Analysis of VOD usage using consumer questionnaire results

Using the results of the consumer questionnaire conducted in this study (see Appendix "Results of Consumer questionnaire on Usage of CTV and VOD, etc."), as indicated in Section 5-3(5) of the report, we have identified the following paid VOD (SVOD) (hereinafter simply "paid VOD "). The following quantitative analysis methods (logistic regression analysis, etc.) were used to analyze the trends in cancellations or new subscriptions to paid VOD (SVOD) (hereinafter referred to as "this analysis") (The question numbers shown below refer to the question numbers in the attached "Results of Questionnaire Survey on Usage of CTV and VOD, etc."). The following is a summary of the results of the study.

1. Data

1 Target period

As of June 30, 2023

2 Data to be analyzed

Of the responses to the questionnaire survey of general consumers (respondents: 4,000), the following response data from (1) to (6) (the corresponding consumer questionnaire question numbers, etc., are shown in parentheses) were used in this analysis.

① Data on the attributes of questionnaire respondents ("Attributes of questionnaire respondents (1) individuals" and "Attributes of questionnaire respondents (2) households")

② Currently (as of the end of June 2023) using monthly/annual subscription-based paid VOD (Q1_1_A(a))

③ Of the services that respondents answered "currently using" in Q1_A(a) above, new contracts were signed within the last 3 months (Q1_1_B1(b-1)).

④ Of the options in question A(a) above, those cancelled within the last 3 months (Q1_1_B2(b-2))

⑤ Paid VOD with monthly/annual flat-rate fees used within the last 3 months, excluding new subscribers, created using the data in ② through ④ above.[192]

⑥The change in the number of monthly/annual paid VOD used from the end of March 2023 to the end of June 2023, calculated by taking the difference between ② and ⑤.

192 Specifically, [(5)] Monthly/annual subscription-type paid VOD used as of the end of March 2023 = ([(2)] Monthly/annual SVOD currently used (as of the end of June 2023) (Q1_1_A(a))) - ([(3)] Those who made a new subscription within the last 3 months among the services they answered "currently using" in the above Q1_A (a)), of the services that respondents answered "currently use" in (a), that they made a new subscription within the last 3 months (Q1_1_B1(b-1))) + ([(4)] Of the options in question A(a) above, those that they cancelled within the last 3 months (Q1_1_B2(b-2))).

The following quantitative analysis was performed using the above data, as described in Sections 2 to 4 below.

i. Analysis of user trends with respect to whether or not the user has cancelled or made a new contract within the last 3 months (Section 2)

ii Analysis of user trends in the case of a net increase, net decrease, or no increase/decrease in the number of paid VOD subscriptions (Section 3)

iii Analysis of cancellation and new contract trends by six paid VOD (Section 4)

2. Analysis of user trends regarding whether they canceled or entered a new contract within the last three months.

1 Purpose and method of analysis[193]

From the viewpoint of clarifying whether there is any tendency in terms of cancellation or new contracts for paid VOD due to differences in respondents' attributes or viewing genres, of the respondents who had used at least one paid VOD as of June 2023 (1756 respondents) were asked (1) whether or not they had cancelled at least one paid VOD within the last three months and (2) whether or not they had signed a new contract for at least one paid VOD. The effects of age, gender, marital status, household income[194], and genre of content watched[195] as explanatory variables were examined using logistic regression analysis[196]. Specific estimation formulas are as follows.

$$\log\frac{\text{Probability that Y=1}}{\text{Probability that Y=0}} = \beta_0 + \beta_1 log x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 log x_4 + \beta_5 x_5 + \varepsilon$$

Y=1 if the client cancelled (or signed a new contract) at least one contract within the last 3 months,

Y=0 if the client did not cancel (or sign a new contract),

x_1: age, x_2: gender (dummy variable, 1: male, 0: female), x_3: marital status (dummy variable, 1:

193 To confirm the robustness of the analysis, the logistic regression analysis described in section 2.1 was expanded to include the following explanatory variables: (1) the intersection term of "annual household income × number of household members" was used as an explanatory variable instead of "annual household income" because there is a possibility that the user's behavior changes depending on the number of household members, and (2) the number of terrestrial TV stations in the user's residential area was also added as an explanatory variable, considering the possibility that the limited content broadcasted might affect user behavior. The results of this extended logistic regression analysis showed no significant impact on the overall results..

194 The unit of "household income" was estimated after converting the unit of "household income" from "yen" to "ten thousand yen" where the questionnaire results indicate "yen" as the unit. The same is also true for subsequent analyses.

195 The genre of content viewed on paid VOD used by respondents as of the end of June 2023. Dummy variables were created for each genre. The same applies hereinafter.

196 From the perspective of confirming the robustness of the analysis, OLS and probit regression analysis was also conducted, and for the OLS analysis, the estimated results were not statistically significant overall compared to the logistic regression analysis. On the other hand, for the probit regression analysis, the results were almost the same as for the logistic regression analysis.

never married, 2: married), x_4: household income, x_5: genre of viewed content (dummy variable for each genre, 1: applicable to genre, 0: not applicable to genre), ε: error term

2 Analysis Results

The results of the analysis are shown in the table below. For "age," statistically significantly, the higher the age, the lower the probability of having "cancelled" or "signed a new contract," indicating that "cancellations" or "new contracts" were less likely to be made. The results suggest that older consumers tend not to switch VOD and continue to use the same service. It was also observed that "cancellation" was statistically significantly more likely to occur when the respondent was male in terms of "gender" and that "cancellation" and "new contracts" were statistically significantly less likely to occur in terms of "household income". Furthermore, it was found that users were statistically significantly less likely to "cancel" or "sign a new contract" when the viewing genre was animation, and statistically significantly more likely to "cancel" or "sign a new contract" when the viewing genres were sports, music, and education/education. This suggests that users who mainly watch "animation" tend not to switch VOD very often, while users who mainly watch "sports," "music," and "education/education" tend to switch VOD relatively easily.

Chart Reference-1: Trend of users who cancelled or signed new contracts within 3 months (n=1,756)

	The cancellation was implemented within 3 months.	New contracts were executed within 3 months.
Age (full age)	**-1.853***(0.218)**	**-1.287***(0.175)**
Gender (1: male, 0: female)	**0.233*(0.137)**	0.140(0.110)
Marital status (1: never married, 0: married)	-0.168(0.160)	-0.117(0.130)
family income	**-0.170*(0.097)**	**-0.161**(0.078)**
Viewing genre - movies	-0.007(0.140)	-0.173(0.113)
Viewing genre - animation	**-0.439***(0.136)**	**-0.314***(0.111)**
Viewing genre - Sports	**0.381**(0.155)**	**0.316**(0.129)**
Viewing genre - Music	**0.350**(0.154)**	**0.378***(0.129)**
Viewing genre - Education & Culture	**0.847***(0.185)**	**0.805***(0.169)**
Viewing genre - Other	-0.626(0.457)	**-0.870**(0.354)**
Intercept	**6.197***(1.092)**	**5.137***(0.899)**

Figures in parentheses indicate standard errors.

** is significant at the 10% level, ** is significant at the 5% level, and *** is significant at the 1% level.

3 Analysis of user trends in the case of a net increase, net decrease, or no increase or decrease in the number of paid VOD subscriptions

1 Purpose and Method of Analysis

In order to clarify whether there is any trend in the increase or decrease in the number of services used in relation to cancellations or new contracts for paid VOD, and whether there is any trend based on differences in respondents' attributes or viewing genres, etc., we conducted a survey among respondents who had cancelled or made a new contract for at least one paid VOD in the last three months. With (1) whether there was a net increase, (2) whether there was a net decrease, and (3) whether there was no change (zero increase or decrease) in the total number of paid VOD used by the respondents (1,756 respondents) who cancelled or newly contracted at least one paid VOD within the last three months, the explained variables, logistic regression analysis[197] was used to examine the effects of age, gender, marital status, household income, and genre of content watched as explanatory variables. Specific estimation formulas are as follows.

197 From the perspective of confirming the robustness of the analysis, an OLS/probit regression analysis was also conducted, with the same results as in footnote 196 above.

$$\log \frac{\text{Probability that Y= 1}}{\text{Probability that Y=0}} = \beta_0 + \beta_1 log x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 log x_4 + \beta_5 x_5 + \varepsilon$$

YY=1 if there was (1) a net increase, (2) a net decrease, or (3) no increase/decrease[198] in the number of paid VOD from the end of March 2023 to the end of June 2023, and Y=0 if there was (1) no net increase, (2) no net decrease, or (3)an increase/decrease,

$p(Y = 1)$: Probability that Y=1,

$x_1 x_2$: age, : gender (dummy variable, 1: male, 0: female), x_3: marital status (dummy variable, 1: never married, 2: married), x_4: household income, x_5: genre of viewed content (dummy variable for each genre, 1: applicable to genre, 0: not applicable to genre), ε: error term

2 Analysis Results

The results of the analysis are shown in the table below. For "age," statistically significant was the fact that the higher the age, the lower the probability of a net increase or decrease, or the higher the probability of no increase or decrease, in the total number of paid VOD used, indicating that "net increase" and "net decrease" are less likely to occur and "no increase or decrease" is more likely to occur. Similar to the analysis in the second section, the results suggest that older consumers tend not to switch VOD and continue to use the same service. As for the genres viewed by users, statistically significant effects were observed. For "sports," an increase in services used is more likely, and no change is less likely. For "music," a decrease in services used is more likely, and no change is less likely. For "education & culture," an increase in services used is more likely, and no change is less likely. This also suggests that users who primarily watch sports, music, or education and culture are more likely to switch VOD relatively easily.

198 The "no increase/decrease" category can be divided into two groups: (1) those who used to use some paid VOD but switched to another paid VOD, and (2) those who did not use any paid VOD at all between the end of March 2023 and the end of June 2023. 324 for the former and 360 for the latter.

Chart Reference-2 Usage of paid VOD(net increase, net decrease, or increase/decrease 0) (n=1,756)

	(1) Net increase	(2) Net decrease	No increase/decrease
Age (full age)	**-0.599***(0.191)**	**-1.696***(0.315)**	**1.062***(0.178)**
Gender (1: male, 0: female)	0.023(0.121)	0.187(0.200)	-0.074(0.113)
Marital status (1: never married, 0: married)	-0.140(0.145)	-0.328(0.235)	**0.222*(0.134)**
family income	-0.018(0.086)	-0.043(0.141)	0.035(0.080)
Viewing genre - Movies	-0.076(0.126)	0.170(0.209)	0.007(0.117)
Viewing genre – Animation	-0.034(0.122)	-0.238(0.196)	0.116(0.113)
Viewing genre - Sports	**0.250*(0.142)**	0.285(0.223)	**-0.314**(0.132)**
Viewing genre - Music	0.193(0.142)	**0.560***(0.213)**	**-0.365***(0.130)**
Viewing genres - Education & Culture	**0.306*(0.181)**	0.381(0.264)	**-0.424**(0.169)**
Viewing genre - Other	-0.424(0.373)	0.077(0.542)	0.325(0.330)
Intercept	1.056(0.980)	**3.613**(1.558)**	**-3.173***(0.910)**

Figures in parentheses indicate standard errors.

** is significant at the 10% level, ** is significant at the 5% level, and *** is significant at the 1% level.

4. Analysis of cancellation and new subscriber trends for each of the six paid VOD

1 Purpose and Method of Analysis

While the analyses in the second and third sections were conducted without distinguishing between paid VOD, this analysis examined cancellations and new subscriptions between six paid VOD (Amazon Prime Video, Disney+, Netflix, YouTube Premium, UNEXT/Paravi, DAZN.) Specifically, for the analysis of (1) cancellation trends, a logistic regression analysis[199] was conducted for those respondents[200] who were considered to have used the VOD in question as of the end of March 2023 using as the explained variable whether or not the respondent had cancelled the relevant paid VOD within the last three months. For (2) analysis of new subscription trends, a logistic regression analysis[201] was conducted using as the explained

199 From the perspective of confirming the robustness of the analysis, an OLS/probit regression analysis was also conducted, with the same results as in footnote 196 above.

200 With respect to the subject VOD, (1) those who are considered to have used the service continuously from April to June 2023 (those who used the service as of June and neither cancelled nor signed a new contract within the last three months), (2) those who are considered to have cancelled the service somewhere between April and June 2023 and not used the service since then (those who did not use the service as of June and cancelled the contract within the last three months but did not sign a new contract), and (3) those who cancelled the service somewhere between April and June 2023 and did not use the service since then. (those who have not used the service and have cancelled within the last 3 months and did not sign a new contract). Amazon Prime Video: 764 users; Disney+: 179 users; Netflix: 437 users; YouTube Premium: 144 users; U-NEXT and Paravi: 84 users; DAZN: 135 users.

201 From the perspective of confirming the robustness of the analysis, an OLS/probit regression analysis was

variable whether or not respondents[202] who were not considered to have used the target VOD as of the end of March 2023 had taken out a new subscription within the last three months. In addition to age, gender, marital status, household income, and viewing genre, for Amazon Prime Video and U-NEXT/Paravi, we also used as explanatory variables whether or not they consider services other than VOD to be convenient.[203]. The specific estimation formula is as follows:

$$\log\frac{\text{Probability that Y= 1}}{\text{Probability that Y=0}} = \beta_0 + \beta_1 log x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 log x_4 + \beta_5 x_5 + \beta_6 x_6 + \varepsilon$$

Y:Y=1 if (1) those who used paid VOD service at the end of March 2023 cancelled their subscription within the last 3 months or (2) those who did not use a paid VOD at the end of March 2023 made a new subscription within the last 3 months, Y=0 if (1) those who used a paid VOD at the end of March 2023 did not cancel their subscription within the last 3 months or (2) those who did not use a paid VOD at the end of March 2023 made a new subscription within the last 3 months.

$p(Y = 1)$: Probability that Y=1,

$x_1 x_2$: age, : gender (dummy variable, 1: male, 0: female), x_3: marital status (dummy variable, 1: never married, 2: married), x_4: household income, x_5: genre of content watched, x_6: whether or not they consider services other than VOD convenient [and whether or not they have used the service in the last one year with a pay-per-use model] (Dummy variable, 1: considered [have used], 0: not considered [have never used]), ε: Error term

2 Analysis Results

As a result of the analysis, for all six paid VOD, as in the second and third analyses, the older the user age, the less likely he/she is to switch paid VOD.

As for differences in trends by paid VOD, respondents tended to cancel or make new subscriptions to paid VOD with content that matches their viewing genre. For example, on

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also conducted, with the same results as in footnote 196 above.

202 (1) Those who are considered to have newly subscribed somewhere between April and June 2023 and continued to use the service until the end of June (those who used the service as of June and have both newly subscribed and cancelled within the last 3 months), (2) Those who are considered to have newly subscribed somewhere between April and June 2023 and subsequently cancelled (those who did not use the service as of June and have both newly subscribed and cancelled within the last 3 months), or (3) Those who did not use the service from April to June 2023. (those who had no use as of June and have both signed a new contract and cancelled within the last three months), or (iii) those who are considered to have had no use between April and June 2023 (those who had no use as of June and have neither signed a new contract nor cancelled within the last three months). Amazon Prime Video: 569 users; Disney+: 1,609 users; Netflix: 1,402 users; YouTube Premium: 1,693 users; U-NEXT and Paravi: 1,233 users; DAZN: 1,633 users.

203 Specifically, the explanatory variable is a dummy variable that takes 1 if the respondent selected "It is convenient to use other services in addition to the VOD" as the reason for continuing to use the subscription-based paid VOD they currently use, and 0 otherwise.

Amazon Prime Video, respondents who watched animation tended to be less likely to cancel their subscriptions, while those who watched movies, animation, and music were more likely to sign up for new subscriptions. Specifically, the following genres of paid VOD showed statistically significant effects.

Chart Reference-3: Trends in cancellations and new contracts by paid VOD

	Cancellation within the last 3 months		New contracts within the last 3 months	
	Likely	Unlikely	Likely	Unlikely
Amazon Prime Video	Education and Culture	Animation	Movies, Music	－
Disney+	－	Movies	Movies, animation, education and culture	－
Netflix	－	Animation	Music, Education and Liberal Arts	－
YouTube Premium	－	－	Sports, Music, Education and Culture	movie
U-NEXT･Paravi	－	Animation	－	Animation
DAZN	－	－	sport	movie

In addition, for Amazon Prime Video, it was observed that new contracts were statistically significantly more likely to occur if the respondent considered a separate service from video streaming to be useful. This would suggest that, with respect to Amazon Prime Video, services other than video streaming are an inducement for new contracts.

Chart Reference-4: Cancellations or new subscriptions within the last 3 months by paid VOD

- **Amazon Prime Video**

Amazon Prime Video	(1) Cancellation Trends	New Contract Trends
Age (full age)	**-1.441*(0.747)**	-0.456(0.359)
Gender (1: male, 0: female)	0.090(0.479)	-0.095(0.219)
Marital status (1: never married, 0: married)	-0.421(0.580)	-0.189(0.258)
Family income	-0.320(0.346)	0.051(0.151)
Viewing genres Movies	-0.177(0.536)	**0.762***(0.222)**
Viewing genre - Animation	**-0.853*(0.512)**	0.317(0.213)
Viewing genre - Sports	-0.705(0.773)	-0.345(0.280)
Viewing genre - Music	-0.297(0.651)	**0.485*(0.260)**
Viewing genres - Education & Culture	**1.277*(0.676)**	0.125(0.383)
Viewing genre - Other	0(0.000)	-0.043(0.613)
Reason for continuing service[204] (applicable: 1, not applicable: 0)	0.041(0.505)	**1.187***(0.284)**
Intercept	4.414(3.902)	-0.308(1.779)

Figures in parentheses indicate standard errors.

** is significant at the 10% level, ** is significant at the 5% level, and *** is significant at the 1% level.

204 The dummy variable is defined as follows: in the "Consumer Survey on the Usage of CTV-related Services," for the question "Please select the reasons why you continue to use the paid VOD you are currently using (multiple responses allowed)," if the respondent selected the option "Because it is convenient to use other services in addition to the VOD," it is coded as "1"; if not selected, and “0” if it is selected.

○ **Disney+**

Disney+	(1) Cancellation Trends	New Contract Trends
Age (full age)	**-2.842***(0.827)**	**-1.452***(0.489)**
Gender (1: male, 0: female)	0.763(0.467)	**0.637**(0.309)**
Marital status (1: never married, 0: married)	**-0.990*(0.519)**	**-0.846**(0.361)**
family income	-0.064(0.339)	0.240(0.226)
Viewing Genres Movies	**-1.306***(0.457)**	**0.741**(0.365)**
Viewing genre Animation	-0.349(0.435)	**0.876***(0.322)**
Viewing genre Sports	0.269(0.487)	-0.203(0.356)
Viewing genre Music	0.518(0.433)	0.508(0.329)
Viewing Genres Education & Culture	0.442(0.478)	**0.820**(0.378)**
Viewing genre Other	0(0.000)	0(0.000)
intercept (point where a graph crosses one of the Cartesian coordinate axes)	**10.174***(3.770)**	-0.885(2.465)

Figures in parentheses indicate standard errors.

** is significant at the 10% level, ** is significant at the 5% level, and *** is significant at the 1% level.

○ **Netflix**

Netflix	(1) Cancellation Trends	New Contract Trends
Age (full age)	**-1.333***(0.514)**	**-1.512***(0.316)**
Gender (1: male, 0: female)	0.417(0.306)	0.196(0.202)
Marital status (1: never married, 0: married)	0.194(0.376)	**-0.739***(0.247)**
Family income	**-0.451**(0.229)**	-0.005(0.143)
Viewing genre - Movies	-0.221(0.337)	0.192(0.210)
Viewing genre Animation	**-0.660**(0.319)**	**-0.301(0.198)**
Viewing genre - Sports	0.168(0.403)	-0.236(0.241)
Viewing genre - Music	0.473(0.348)	**0.526**(0.221)**
Viewing genres - Education & Culture	**0.794*(0.414)**	**0.491*(0.286)**
Viewing genre - Other	0(0.000)	-1.560(1.021)
Intercept	**5.699**(2.656)**	**3.387**(1.589)**

Figures in parentheses indicate standard errors.

** is significant at the 10% level, ** is significant at the 5% level, and *** is significant at the 1% level.

○ **YouTube Premium**

YouTube Premium	(1) Cancellation Trends	New Contract Trends
Age (full age)	**-1.915**(0.858)**	**-1.689***(0.569)**
Gender (1: male, 0: female)	-0.064(0.509)	0.433(0.372)
Marital status (1: never married, 0: married)	0.158(0.598)	-0.188(0.410)
Family income	-0.184(0.346)	-0.087(0.269)
Viewing genres - Movies	-0.552(0.518)	**-1.020***(0.361)**
Viewing genre - Animation	0.752(0.523)	0.033(0.360)
Viewing genre - Sports	0.739(0.529)	**0.628*(0.369)**
Viewing genre - Music	-0.778(0.514)	**1.580***(0.361)**
Viewing genres - Education & Culture	0.203(0.554)	**1.571***(0.381)**
Viewing genre - Other	0(0.000)	**1.191*(0.690)**
Intercept	6.339(4.158)	2.207(2.749)

Figures in parentheses indicate standard errors.

** is significant at the 10% level, ** is significant at the 5% level, and *** is significant at the 1% level.

○ **U-NEXT･Paravi**

U-NEXT･Paravi	(1) Cancellation Trends	New Contract Trends
Age (full age)	-0.090(1.187)	-0.612 (0.619)
Gender (1: male, 0: female)	0.645(0.728)	-0.344 (0.403)
Marital status (1: never married, 0: married)	0.831(0.859)	0.182 (0.477)
Family income	0.130(0.645)	0.072 (0.278)
Viewing genres - Movies	-0.208(0.759)	0.246 (0.431)
Viewing genre - Animation	**-2.587**(1.023)**	**-1.175**(0.457)**
Viewing genre Sports	0.390 (0.916)	0.323 (0.466)
Viewing genre Music	0.097 (0.790)	0.368 (0.454)
Viewing Genres Education & Culture	1.345 (1.214)	-0.084 (0.759)
Viewing genre Other	2.781 (1.880)	0(0.000)
Reason for continuation of services (applicable: 1, not applicable: 0)	0.488 (0.998)	-0.228 (0.507)
intercept (point where a graph crosses one of the Cartesian coordinate axes)	-1.984 (6.954)	-1.587 (3.156)

Figures in parentheses indicate standard errors.

** is significant at the 10% level, ** is significant at the 5% level, and *** is significant at the 1% level.

○ **DAZN**

DAZN	(1) Cancellation Trends	New Contract Trends
Age (full age)	**-1.981**(0.809)**	**-2.166***(0.681)**
Gender (1: male, 0: female)	0.652(0.557)	0.408(0.440)
Marital status (1: never married, 0: married)	-0.274(0.568)	-0.684(0.484)
Family income	-0.082(0.407)	-0.111(0.322)
Viewing genre - Movies	0.156(0.545)	**-0.850**(0.416)**
Viewing genre Animation	-0.260(0.511)	0.044(0.421)
Viewing genre - Sports	-0.627(0.686)	**3.112***(0.524)**
Viewing genre - Music	0.630(0.515)	0.612(0.442)
Viewing genre - Education & Culture	**0.956*(0.547)**	0.384(0.485)
Viewing genre - Other	0(0.000)	0(0.000)
Intercept	6.072(3.877)	3.261(3.416)

Figures in parentheses indicate standard errors.

** is significant at the 10% level, ** is significant at the 5% level, and *** is significant at the 1% level.