

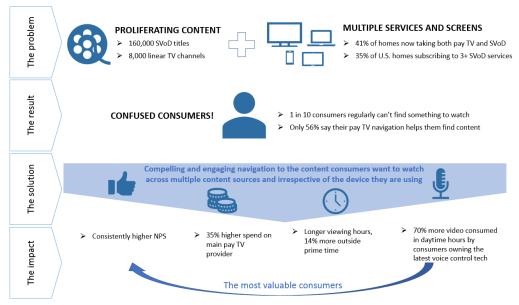
Navigating Content ChaosA roadmap for pay-TV operators

TV viewers have access to more content than ever, and the choice is still expanding. Providing compelling navigation to help them discover what they want to watch is essential for operators wishing to engage the most valuable consumers across every device.



Executive summary

- The navigation "problem" is clear, and it's getting bigger: consumers have access to more content than ever before. And today's "content chaos" is set to get even more extreme as the range and breadth of content available is continually increasing. Research shows that major SVOD providers have expanded their content catalogs by 40 percent in just two years, and the number of linear channels has grown to over 8,000. Consumers also have multiple streaming TV services in their homes and expect to find content easily and seamlessly across all providers.
- It is evident from the research featured in this report that pay-TV operators need to adopt five key strategies to help consumers find the content they want to watch. Operators must act as super aggregators for the TV and streaming services consumers are already stacking themselves; they must work across multiple on-platform and off-platform devices; they must offer a compelling and simple service-agnostic navigation and personalized recommendations, and they must make use of latest tech where it helps viewers to navigate: voice control with natural language processing is a key example.



- Getting the navigation and user interface right has immediate and significant benefits for
 operators. In addition to attracting and helping to retain the most valuable consumers, compelling
 and powerfully integrated navigation contributes to a much higher perception of an operator's
 services and higher spend.
- The changing TV environment means the navigation challenge is growing. SVOD subscriptions have overtaken pay-TV for the first time. More households than ever now have *both* pay-TV and SVOD, a record 41 percent across markets surveyed. And a growing number of consumers subscribe to multiple SVOD services, with 22 percent of U.S. customers taking four or more.
- With choice comes confusion: despite the vast range of content available, consumer research highlights the struggle many viewers have to find something to watch on TV or online, with only two-thirds of viewers saying their pay-TV navigation helps them find content.
- Operators must respond with a user interface that allows consumers to navigate the vast range of
 content from multiple providers, delivering highly-personalized recommendations, consistent
 across every screen and device, and tapping into consumers' desire for the latest technology (e.g.
 voice control, streaming boxes.)

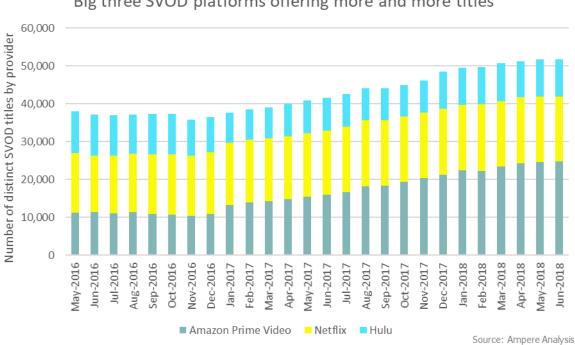


Solving the chaotic content challenge

Spoiled for choice

Consumers have never had so much content choice. Across 12 countries surveyed, access to streaming content is now prolific with a choice of 160,000 SVOD titles available from more than 30 major streaming providers. The "big three" platforms (Amazon Prime, Hulu and Netflix) have increased the number of titles in their catalogs by 40 percent in just two years. Conventional linear broadcast TV channels also continue to grow, with more than 8,000 available across the same 12 territories.

And many viewers are using more and more services: nearly a quarter of U.S. consumers are now subscribing to a staggering four or more SVOD services – and that is on top of TV channels (watched live and time-shifted with a DVR); cable VOD; and regular use of free video from broadcaster catch-up services, as well as watching more and more video content on YouTube, Twitch and Facebook.



Big three SVOD platforms offering more and more titles

From the EPG to the 'content catalog'

Operators now need to think well beyond linear channels. While broadcast TV is thriving – for now – a growing slice of consumers say their viewing is shifting from scheduled linear TV to online video services.

Well over one-third (36 percent) of pay-TV customers now say online services are their main source of TV and movies, up from 27 percent three years ago.

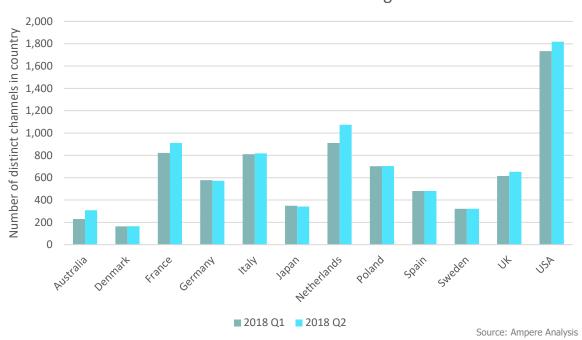
More and more viewers expect to stop watching regular TV altogether. One-third now believe their household will cease viewing broadcast TV within the next five years, up from a quarter three years ago.

36% OF PAY-TV CUSTOMERS SAY ONLINE SERVICES ARE THE MAIN WAY THEY WATCH TV AND MOVIES.



In Q3 2018 in the markets surveyed, Subscription Video on Demand (SVOD) services like Netflix, Amazon Prime and Hulu overtook pay-TV for the first time, reaching 62 percent of online households in the 12 countries examined, while pay-TV penetration fell back to under 60 percent. Cord-cutting is making its presence felt, meaning operators need to seize every opportunity to retain a competitive edge against the growing substitution threat of SVOD.

Traditional linear TV channels still increasing in most markets



Methodology

Data and analysis in this report are based on information from Ampere Analysis data services.

Ampere Analysis Consumer comprises two annual waves of consumer surveys across 16 TV markets and 66,000 respondents each year. These surveys provide detailed segmentation of media consumption patterns across crucial consumer groups – by age bracket, service usage, attitudes, and many other categories.

This report is based on the Q3 2018 consumer survey wave and is focused on 12 mature global markets: Australia, Denmark, France, Germany, Italy, Japan, Netherlands, Poland, Spain, Sweden, U.K. and U.S.A. The total sample size is 26,000 individual respondents. Analysis and charts in this report are based on the segment of consumers that considers pay-TV to be the main way they consume video content, 52 percent of the total. Analysis of consumption of multiple SVOD services is based on the total sample. Analysis of voice control devices focuses on five countries with commonly-supported languages (English for Australia, U.K. and U.S., German, Japanese)

Net Promoter Score (NPS) is a measure of customer satisfaction with a service. Scores range from -100 to +100 and are calculated by asking likelihood to recommend on a scale of 0-10. The percentage of Detractors (rate 6 or lower) is subtracted from Promoters (rank 9 or 10) to produce the NPS.

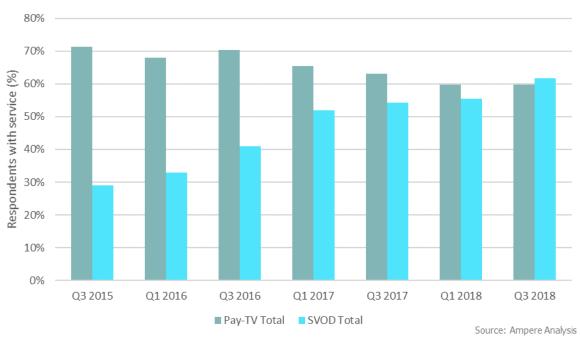
Ampere Analysis Markets which delivers a comprehensive picture of the world's largest cable, satellite, telecoms operators and subscription VOD services.

Ampere Analysis Analytics Content Track which provides key metrics about the content strategies of the world's leading VOD and SVOD services across international markets, focusing on the availability of TV and film titles by country and platform.





Streaming supreme: SVOD users have overtaken pay-TV



Decisions, decisions

With choice comes confusion. Despite the expanding smorgasbord of content options, today's consumer feels no better able to find something to watch than they did three years ago.

More than one-in-10 consumers whose primary source of content is pay-TV (cable, IPTV, satellite) even in

homes that also have SVOD services, say they *can't* generally find something they want to watch on TV or online.

However, most are looking for guidance from their platform to discover the right content at that moment: with 70 percent of viewers regularly watching TV and video without planning in advance.

MORE THAN ONE-IN-10 CONSUMERS STILL CAN'T FIND SOMETHING THEY WANT TO WATCH

Pay-TV plays a crucial role

Even with the trend to watch on-demand content, traditional TV maintains a central role in most homes, with viewing of scheduled broadcast channels still dominating the evening peak from 8 p.m. until midnight, supported by replay of DVR-recorded programs.

Crucially for pay-TV operators the number of households with *both* pay-TV and SVOD has increased to a peak of 41 percent across the 12 countries surveyed. This creates a massive opportunity for cable, IPTV and satellite operators to guide their customers through the viewing revolution: stack together all the services consumers desire, and help them discover great content through the best possible user interface. Then add brilliant navigation, personalization and recommendations across content providers – whether they are linear channels or on-demand services.



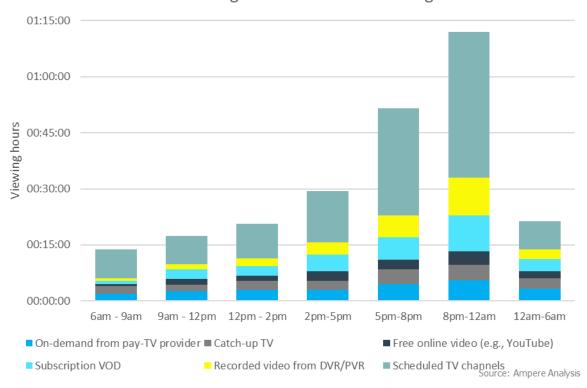


More people than ever have both pay-TV and SVOD



This must be delivered across devices and screens, and must keep up with the high expectations of the most valuable TV viewers who expect to use new features and gadgets – including voice control devices and OTT streaming boxes. The rewards for getting the navigation right are substantial.

TV viewers are watching content from a wide range of sources





Navigation is the new battleground for consumer engagement

Creating contented customers creates brand value

Ampere Analysis Consumer research reveals viewers' perception of the user interface and navigation provided by their pay-TV operator is strongly aligned with their level of engagement and readiness to recommend the service to others – measured as Net Promoter Score (NPS), as well as how much they spend with their provider.

In short, consumers who agree the navigation of their main TV service makes it easy to discover TV programs, movies and video content they want to watch are significantly more likely to be positive about the operator, and be promoters of its services.

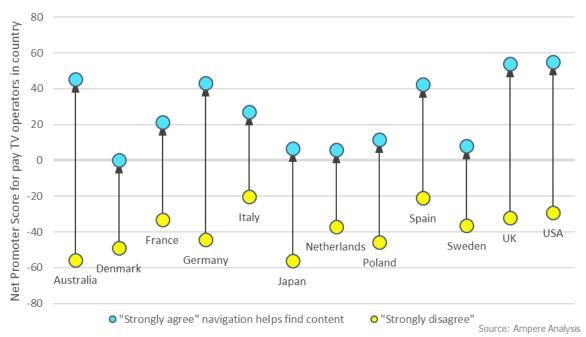
CONSUMERS RATING THEIR
PAY-TV NAVIGATION HIGHLY
HAVE A MUCH HIGHER
OPINION OF THEIR PROVIDER

Across every one of 12 countries participating in the consumer research, the average NPS for operators

shows a marked increase for those pay-TV consumers who strongly agree that their platform's navigation makes it easy to find content to watch, compared with those who strongly disagree that the navigation works well for them.

Helping consumers navigate the deluge of content to find something they want to watch is as important to the viewers as the content itself.

Good pay TV navigation inspires brand advocates, raising NPS



Consumers who rate their pay-TV provider's navigation positively are more engaged on every measure, including their appreciation for different content genres, their ability to find something to watch, even their willingness to consume advertising.

Getting the user interface right is clearly crucial for maximizing consumer satisfaction and engagement. And yet across the 12 countries surveyed, only 56 percent of consumers whose main video platform is pay-



TV agree that their provider's navigation helps them find content. Operators still have room for improvement.

Boosting channels

It is not just the perception of the pay-TV provider that is boosted through a good user interface. Operators that take navigation seriously also deliver positive benefits to their channel partners – with a significant boost to NPS scores for channel brands and viewership among viewers satisfied with the operator's navigation.

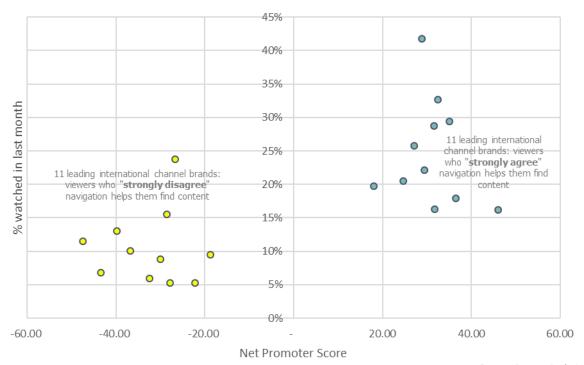
Valuable viewers value navigation

Consumers who rate their operator's user interface highly also spend more with their TV provider. In most markets, users who agree their pay-TV navigation is good pay significantly more per month to their main provider, often in the region of 30-50 percent more than the average.

Across all 12 markets analyzed, the average consumer's spend on all services from their main TV provider is \$82 per month. For those users who feel strongly that their operator's navigation is ineffective, this drops to \$70 per month. But for viewers strongly rating their provider's user interface, the amount spent jumps to \$96, a 35 percent uplift compared with the dissatisfied viewers.

CONSUMERS POSITIVE
ABOUT THEIR PAY-TV
NAVIGATION SPEND 35%
MORE WITH THEIR PROVIDER

Good navigation boosts channel NPS and viewership



Source: Ampere Analysis



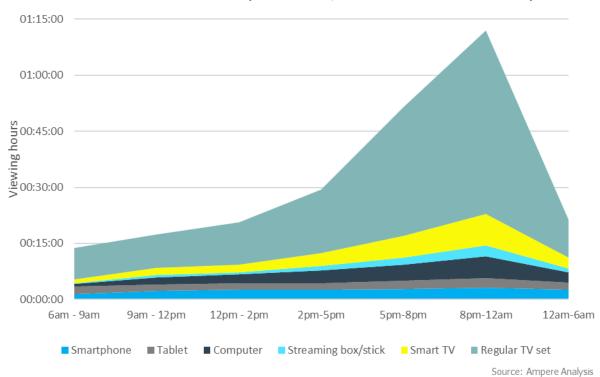
Demanding devices

Connecting every screen

Satisfying the most valuable and engaged viewers means going beyond the main screen and set-top box. Naturally consumers are increasingly using multiple devices: smartphones, tablets and OTT streamer boxes all figure highly in many households' daily viewing, as well as the regular pay-TV set-top box and DVR. These devices are used at home and on the road, with 38 percent of consumers saying they frequently use their smartphone, tablet or laptop to watch video outside the home.

Different devices enable consumption at different times of day. Smartphones and computers are used during the working day. The main-screen TV still dominates viewing, especially during evening prime time, and OTT streaming devices become proportionately more important for bedtime viewing, extending prime time later into the evening.





Giving valuable viewers a voice

Tech-savvy device owners spend more on pay-TV, so keeping them happy with a slick interface and great navigation pays dividends. In most markets, pay-TV customers spend significantly more on their provider when they also own gadgets like OTT boxes (such as Amazon Fire, Apple TV, Google Chromecast, Roku and those from operators) and voice control devices (like Amazon Echo/Alexa and Google Home/Assistant).

Average monthly spend with a customer's main pay-TV provider of \$82 rises to \$92 for customers owning an OTT streamer box, and to \$97 for the 12 percent of homes with voice control hardware – an 18 percent uplift, similar to the boost from navigation advocates. Focusing just on territories with language commonly supported by the main voice platforms (English, German, Japanese), monthly spend rises to





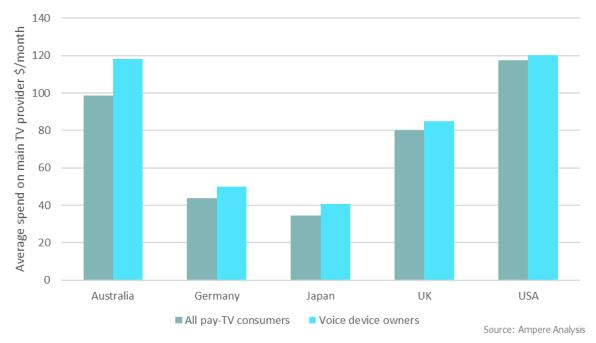
\$106 for the one-in-five consumers with voice control hardware. That is in addition to any spend on standalone SVOD services.

However popular voice devices are with consumers, they are not optimized for interacting with pay-TV and content from multiple sources. Support is also needed for natural-language interactions, such as an ability to follow-up an initial command to drill down into results and aid content discovery. The easier the interaction with the platform, the better the experience for consumers.

OWNERS OF NEW TECH LIKE VOICE CONTROL DEVICES ARE AMONG THE MOST VALUABLE CUSTOMERS

Operators that want to tap into this digitally-connected segment of heavy content consumers need to consider how to satisfy their desire for gadgetry, multi-screen consumption and voice as a user interface mechanism – before these valuable, but fickle, users turn to another provider.

Voice device owners spend significantly more on pay-TV



Features fuel spend

In many markets, consumers are willing to spend significantly more on their primary pay-TV subscription to get the features they want, such as a DVR, multi-room distribution, download-to-device capability, personalized and relevant recommendations and on-demand services.

Across the 12 markets surveyed, more than a third of viewers agree that having the latest technology and devices is important to them. Access to the features they want from their pay-TV operator has the highest positive impact on customers' willingness to spend after the availability of HD content.

Consumers whose primary motivation for choosing an operator is the technology-led features available (such as time-shift and multi-screen) spend an average \$94 a month on their main pay-TV provider each month, a 14 percent boost from the market norm of \$82. Higher income groups are even more motivated by features.

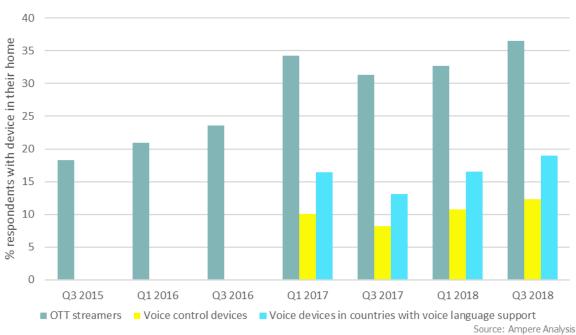




Watching on the road is a prized feature: for the 38 percent of viewers regularly using devices to watch video outside the home, average monthly spend rises to \$90, and the 11 percent of users who rely most heavily on this feature pay on average \$97, a 17 percent boost.

Unsurprisingly, features are a huge motivation for those higher-value customers who already own gadgets. One-in-10 voice hardware owners cite features as a primary motivation for choosing their pay-TV provider – and more importantly for this segment, fewer of them say price is their main decision factor—down from 31 percent to 22 percent of service choosers.

OTT streamers now widespread, voice control catching on fast



Features inspire engagement

Gadget fans not only spend and watch more, they are also far more likely to be advocates for their pay-TV provider. Owners of devices are stronger promoters of their operators – making it crucial to attract and retain these consumers, and then serve them the features they enjoy.

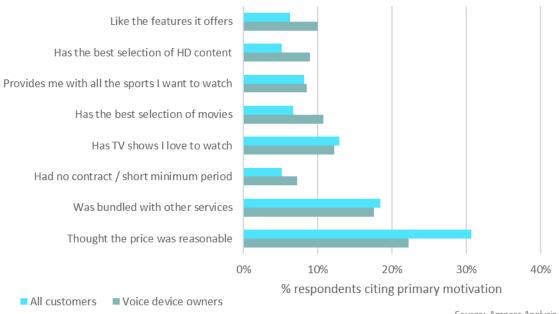
Again, it is voice control that indicates the most cutting-edge consumers, although OTT streamer box and DVR owners are also generally much more positive about their provider.

Across the five markets with widespread language support for voice control, NPS scores for consumers' primary pay-TV provider all become strongly positive for voice device owners, and in all 12 markets, DVR owners have higher NPS scores than the average customer.



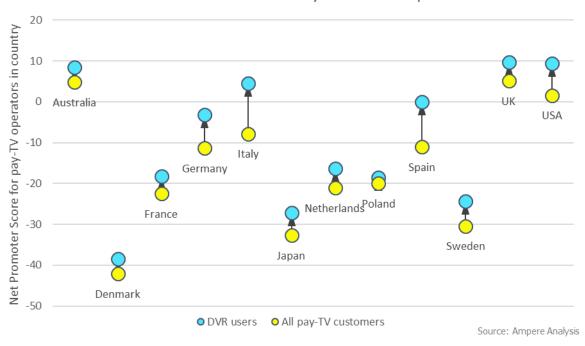


Gadget fans are motivated more by features, relatively less by price, when choosing a pay-TV service



Source: Ampere Analysis

DVR users are much more likely to be brand promoters





Loyalty, what loyalty?

There's a fly in the ointment, however. Retaining these highly-valuable, brand-promoting, digitally-savvy viewers is extremely difficult. They are liable to be constantly comparing service providers and looking for an operator with a better offer – be it price, content or features. No matter how positively they rate a pay-TV provider, if there's something new and shiny to try they are very likely to switch.

Across the 12 countries surveyed, 12 percent of consumers expect to ditch their current pay-TV provider in the next six months, and 11 percent have changed supplier in the previous six. But this rises sharply for those consumers who state an important motivation for choosing a pay-TV provider is the range of features: 17 percent have changed TV operator in the past half year. This grows to 21 percent for OTT streamer box owners, and leaps to 27 percent for voice hardware aficionados.

SVOD USERS ARE FAR MORE LIKELY TO SWITCH PAY-TV PROVIDER: 39% MOVED IN THE LAST SIX MONTHS

Consumers with SVOD services are also much more likely to turn away from their current pay-TV provider: for consumers who now regard SVOD as their main TV service, 39 percent have moved from their previous pay-TV provider in the last six months.

Super-serving these customers with the very best user interface and navigation, and adding features including multi-screen content, easy access to streaming services and voice control is essential to keep them as contented as possible and mitigate the chance of churn.

Stacking services broad and deep

Gadgets drive viewing

Early adopters and gadget lovers prove to be much more engaged with content, watching significantly more than other viewers, particularly outside prime time. Operators have the opportunity to make the set-

top box and companion devices central to the techlover's viewing experience by integrating latestgeneration navigation.

If ownership of a voice control device indicates "peak gadgetry" (the most cutting-edge tech adopters), these consumers are also big off-peak viewers, watching nearly 70 percent more on average during daytime hours (6 a.m. – 5 p.m.) across their range of devices. They are watching less scheduled TV though, with the

VOICE CONTROL DEVICE OWNERS CONSUME 70% MORE VIDEO CONTENT IN DAYTIME HOURS

additional viewing hours coming from a range of other sources, including SVOD, broadcaster catch-up services, operator VOD and DVR recordings.

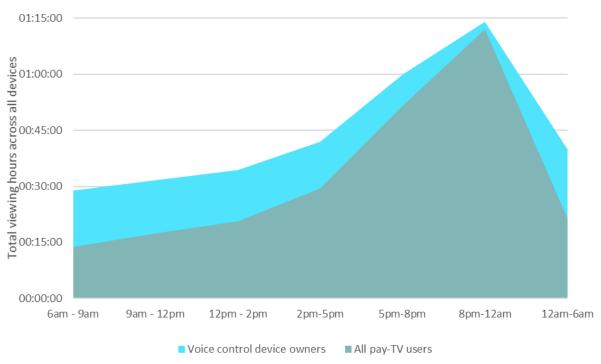
The challenge for operators is to serve choosy high-value consumers with a wide range of content from diverse sources, delivered to multiple devices and screens in the home, and outside.

This so-called "service stacking" is an essential strategy. If consumers cannot find the range of content they want from their main pay-TV provider, they are already going elsewhere to create their own virtual stack by subscribing to several OTT services directly.





Voice control owners watch more outside prime time



Source: Ampere Analysis

Stacking SVOD services

Navigation becomes even more of a challenge when the consumer's tendency to stack multiple streaming services is taken into account. Many pay-TV operators are adding SVOD services like Netflix to their platform to satisfy their customers' desire for on-demand content, discouraging them from going elsewhere to find it. This adds more value to their offer, helping to maintain ARPU and retain the most valuable customers. But it presents an even greater navigation and content discovery challenge.

This strategy can be extremely effective. In markets where pay-TV operators offer Netflix on their platforms, the tighter the integration the greater the uptake of Netflix, the consumer data reveals.

Netflix alone is unlikely to satisfy the most connected and engaged viewers. Well over a third of online consumers in most markets are subscribing to at least two SVOD services, and many have three, four, five or more. As well as the big brands, many successful niche SVOD services are becoming established – such as BritBox, offering U.K. programs to the North

CONSUMERS WITH MORE SVOD SERVICES ARE STILL FAR MORE LIKELY TO SUBSCRIBE TO PAY-TV

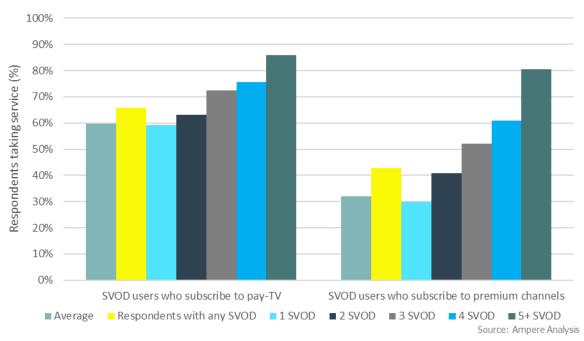
American market. This is in addition to free VOD services, whether broadcasters' catch-up or YouTube.

Engaging these SVOD fans is crucial, as they are far more likely to subscribe to pay-TV services and premium channels. On average across the 12 markets surveyed, 60 percent of consumers have pay-TV and 32 percent pay for premium channels. For super-SVOD consumers with five or more services, 86 percent are pay-TV customers, and 81 percent consume premium channels.



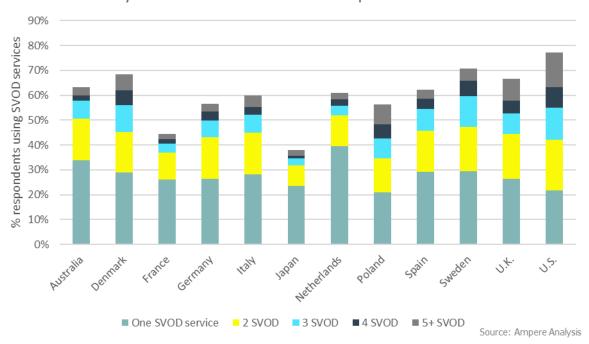


SVOD fans more likely to take pay-TV and premium channels



Pay TV operators must ensure their future role by offering a full range of SVOD providers on their platform, making these available across devices – and providing search, discovery and recommendation tools that allow users to find what they want to watch among the ever-expanding catalogs of content.

Many online consumers stack multiple SVOD services





Navigating complexity

Great user experience leads to happy customers

The Ampere Analysis Consumer data analyzed for this report reveals the most valuable consumers are demanding ever more content and services delivered not only via a set-top box on the main TV set but across every device, in and out of the home.

The clear risk is these consumers become overwhelmed by choice, and struggle to find something to watch. This is much more likely to be the case for operators that neglect the user interface and navigation of their service. Data shows clearly that sophisticated consumers who are early adopters of new tech like voice control devices have high expectations about the experience they receive.

These super-consumers have big demands – but they will pay more for the features and range of content services they prize. And if their operators deliver, they will be positive brand ambassadors with higher Net Promoter Scores. Any gaps in the pay-TV provider's offer though, and these consumers will be the first to seek out a better service and become a churn statistic.

The consumer data demonstrates a clear link between the quality of a pay-TV provider's user experience and the satisfaction of consumers. Making a world of content chaos compelling and simple to access must be at the heart of any successful pay-TV strategy.

Action plan for operators

For operators wanting to attract the most valuable, engaged customers, while also securing the best channels and content suppliers, Ampere's analysis identifies five key strategies to embrace:

- Stack services and aggregate content from multiple sources to be the go-to platform for viewers, helping ensure they can always find something to watch regardless of whether it is a live linear broadcast channel, SVOD or catch-up service, free online video, or DVR recordings on the set-top box or in the cloud. Recognize the most valuable consumers expect to access a diverse range of content providers. The opportunity for operators is to create a boundless bundle and provide navigation that allows viewers to search seamlessly across a vast range of live, streamed and recorded material creating a much better experience than if viewers subscribe individually to numerous services.
- Deliver content across devices and screens, including the traditional operator-provided set-top
 box connected to the main TV, and "bring your own device" streaming boxes and Android TV
 devices, smartphones, tablets and PCs. Experience and service quality must be consistent
 whether viewing in the home using an operator's network or on mobile devices on a third-party
 WiFi or wireless network. The product should be consistent regardless of the screen used, and
 crucially the user interface and navigation must be uniformly-excellent on every device.
 Recognize this is essential not only for user engagement and satisfaction, but for growing viewing
 hours, particularly outside prime time.
- Provide best-in-class user interface, recognizing the importance of effective navigation and UI for
 driving consumer engagement and satisfaction measured through greatly increased Net
 Promoter Scores and ARPU levels. Navigation should be compellingly simple and fluid,
 minimizing the complexity and number of clicks required to complete an action. While UIs must
 be consistent across devices, they must also be tailored for the screen being used, handling input
 via remote control, touch and voice.
- Personalize the experience with effective recommendations, simplifying the content discovery
 journey for consumers and helping ensure they can quickly and easily find something great to



watch. Personalization and recommendation must also span all content sources, formats and providers. It must be relevant and highly targeted by time of day, user and device.

Enable new features and technology like voice control to tap into the highest-spending, most
engaged consumers. Voice should be a core part of the user interface, going beyond basic
commands to enable viewers to drill down and discover content using natural language
interactions. Voice navigation must integrate with personalization and every content source.

Ampere Analysis consumer data highlights the crucial importance of adopting these approaches to provide the ultimate user experience: simple and seamless, supporting personalization and voice control to enable consumers – including those who are most valuable and difficult to please – to navigate through content chaos.