Multiscreen TV & VoD:

the big picture

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DIGITAL TV EUROPE

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Contents

Introduction

Multiscreen TV has been the big story of the last year, with pay TV operators as well as OTT service providers extending the reach of their content by targeting devices including tablets, smartphones, smart TVs and game consoles, as well as traditional set-top boxes.

While multiscreen TV is now common in advanced markets, there remains uncertainty about the potential scope of services – including whether they should encompass live as well as on-demand content – and about how to make money from them.

Other questions facing service providers include how many and what type of devices to target, how to improve audience measurement techniques, and whether to build their own platform, outsource it to a third party or select best-of-breed components.

DTVE recently surveyed 242 senior industry participants from 65 countries, 16.1% of whom identified as triple-play operators, 7.9% as IPTV service providers, 5.4% as cable operators, 3.7% as DTH operators, 6.6% as pay TV channel operators and 9.9% as free-to-air broadcasters, with the balance composed of a mix of producers and content providers, mobile TV and VoD operators, executives of industry associations consultants, technology vendors and others.

We sought their views on a range of key topics related to multiscreen and OTT video distribution, enabling us to build a picture of industry perceptions, priorities and concerns.

Takeaways:

- Multiscreen and VoD providers are targeting a wide range of devices with a mix of free, subscription and transactional models. However, operators are continuing to prioritize fixed network devices, including the set-top box and laptops as well as tablets, with less emphasis being placed on mobile and game consoles. Smart TVs are also surprisingly popular, despite concerns about how to monetize them.

- Service providers are concerned about a range of challenges and in particular by the fragmentation of the device and platform landscape. Despite the proliferation of video-enabled devices, operators continue to regard set-top boxes as more secure than other categories of devices, including mobile.

- Few operators believe that they are making the most of the commercial opportunities of multiscreen video. Only set-top box-based services are seen as a proven route to a profitable business. Operators believe mobile apps can also deliver returns, but have much less faith in the revenue potential of smart TVs and game consoles. Audience measurement is seen as a key challenge, and operators view monetization in general as the most challenging aspect of launching multiscreen and on-demand services.

- Multiscreen and OTT service providers do not want to be technology companies, but favor retaining control of the integration of technology in partnership with best-of-breed suppliers. Flexibility is seen as key, with the majority of service providers looking to launch services based on new technologies such as MPEG-DASH and H.265.

- Service providers believe a compelling user experience is the most important element to get right in multiscreen and OTT delivery, with content security, cost, scalability and ease of management also seen as important.

VoD and multiscreen reach

Delivering non-linear content to multiple devices has become part of the core offering of progressive service providers in advanced markets. However, there remains a lack of clarity about the kind of business model that multiscreen delivery can support, about the type of service that should be offered, and about the range of devices that it makes sense to target.

Our survey shows that Multiscreen and VoD providers typically target a wide range of devices and offer a mix of free-to-view, subscription and transactional VoD content, with no clear winner emerging in terms of the business model for content monetization, or in terms of the most popular category of devices targeted.

However, the survey also demonstrates that 'fixed-line' devices – desktops and laptops, smart TVs and set-top boxes – remain highly favored, despite growth in mobile broadband.

Asked to list which of five categories of service they offered, a majority of respondents say they offer free-to-view, subscription and transactional paid content, while a significant minority also say they provide streaming of live events on their platform. A slightly smaller minority – still amounting to two in five respondents – offer connected TV apps to reach viewers (Fig.1).

In terms of devices targeted, the continued strength of 'traditional' IP video devices – desktops and laptops and set-top boxes – is evident. Three in four respondents to this question say they offer video content via set-top boxes, with a similar number offering their content via desktops and laptops.

The rise of the tablet is also evident from our survey, with a large percentage of respondents – just over three in five or 62.8% – offering their content on tablets. Mobile apps are targeted by 58.9%, while services are offered via the mobile web by under half of respondents.

Smart TVs are surprisingly popular amongst video providers, given the strong degree of scepticism about how many people connect and use these devices, with 57% of respondents offering services via smart TV. Game consoles are by some measure the least popular device for multiscreen on the other hand, with just over one in five respondents offering their services to this category of device (Fig.2).

Fig 1: VoD services offered

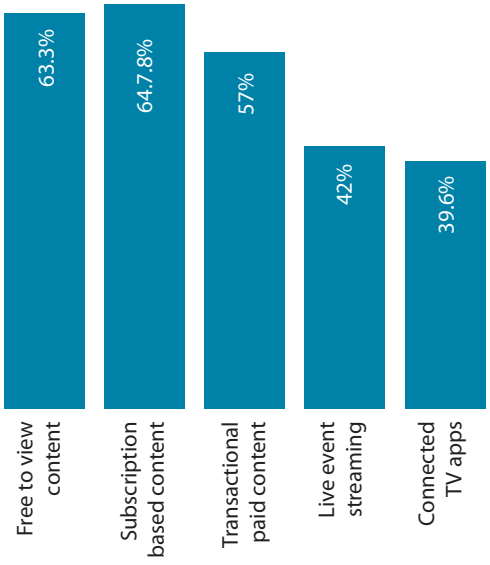
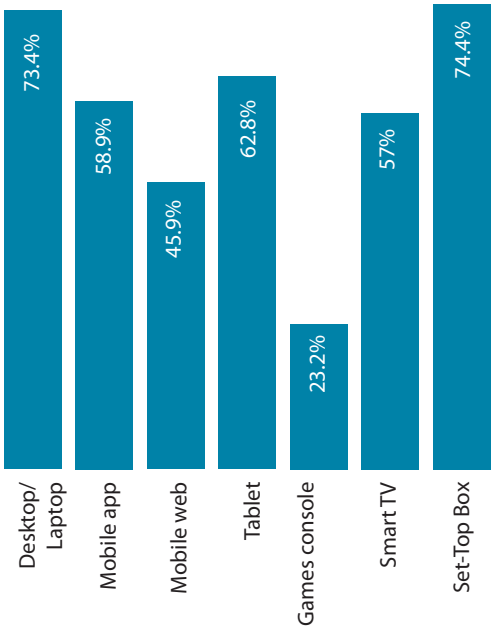


Fig 2: Availability of service providers' video by device type



Challenges

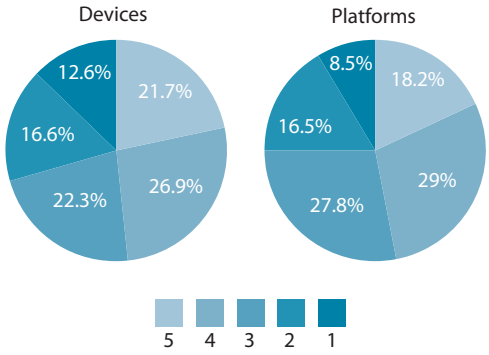
For service providers delivering content to various devices over multiple networks, the top concerns are the fragmentation and security of the end devices and platforms.

Quizzed on their attitudes to these challenges, a significant percentage of respondents show concern about fragmentation of the device landscape – meaning too many different devices need to be addressed – with almost half giving it a high score (5 or 4 on a sliding scale of 5-1). A similar proportion say that platform fragmentation – such as the use of a range of different operating systems – is a significant problem (Fig. 3).

On the vexed issue of content security, respondents favor the set-top box and the smart TV over the mobile web and apps as offering a superior level of security.

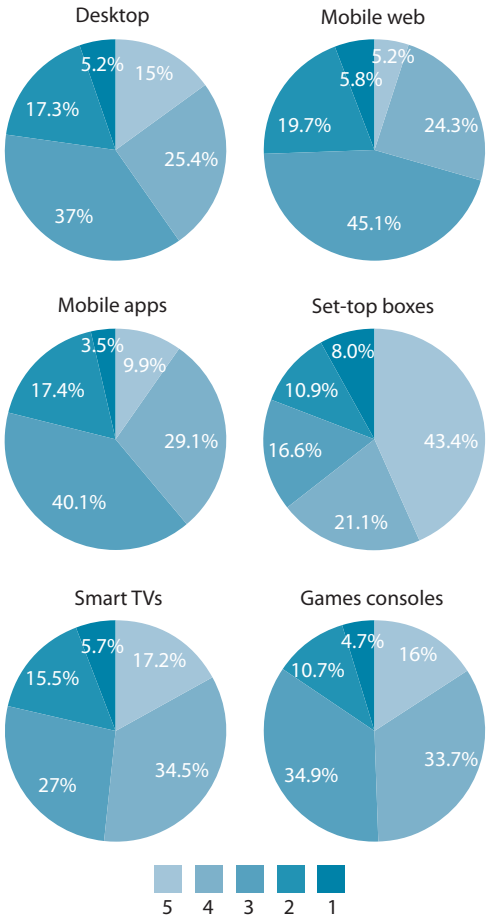
Over two in five respondents give set-top boxes top marks for security on a scale of 5 (with over three in five giving a score of 5 or 4). A majority of respondents also give smart TVs a score of 5 or 4. Respondents exhibited moderate skepticism about the security of other devices. Game consoles are regarded as relatively secure, with over three in five respondents giving them two or three marks out of five. Respondents had similar views of the security-worthiness of desktops. Mobile apps are next most favored, with the mobile web trailing slightly (Fig. 4).

Fig 3: To what extent is fragmentation of devices and platforms causing you problems with delivering a consistent content experience?



Scale 5-1 (5 = major problem, 1 = minor problem)

Fig 4: How secure is video content on the following platforms?



Scale 5-1 (5 = very secure, 1 = not secure)

Providers' strategic priorities

Though service providers have fully embraced multiscreen and on-demand services due to clear demand for such services from subscribers and due to competitive pressures from OTT providers, monetization of multiscreen services is still seen as a challenge, or even a missed opportunity.

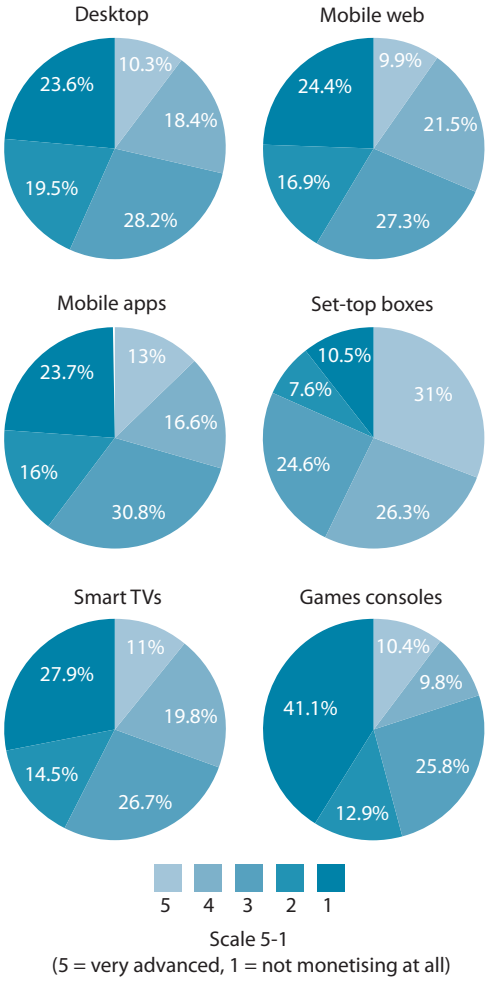
Most respondents to our survey say that they are well-advanced in developing and launching multiscreen and on-demand services, but few believe they are making the most of the opportunity commercially.

Asked if they are maximizing the value of their content across a range of devices, respondents said that only set-top box-based services offer an effective way to monetize content, with over half of respondents giving set-tops a score of 5 or 4 on a scale of 5-1. Mobile apps are seen as OK for monetizing content – though much less so than set-tops – while the desktop and the mobile web are seen as moderately successful.

Respondents are, however, less satisfied with smart TVs and game consoles. Two in five respondents give game consoles the worst possible score for monetizing content (1 on a scale of 5-1), while almost three in ten also gave smart TVs the worst score on this question (Fig.5).

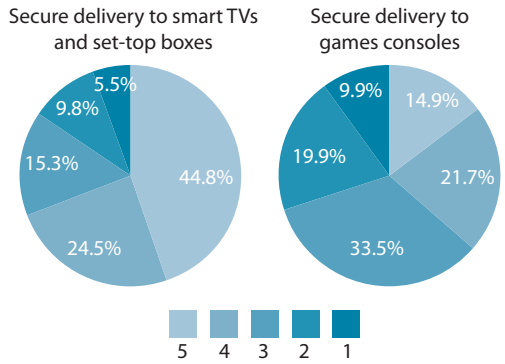
Lack of faith in certain devices feeds into service providers' priorities. When asked what they saw as more important for video service providers over the next 12 months, a majority give a high score to the secure delivery of content to set-top boxes and smart TVs (three in five giving this a score of 5 or 4 on a sliding scale of 5-1), while the secure delivery of content to game consoles is seen as less important (Fig.6).

Fig 5: Are you successfully monetising content across the following devices?



Scale 5-1
(5 = very advanced, 1 = not monetising at all)

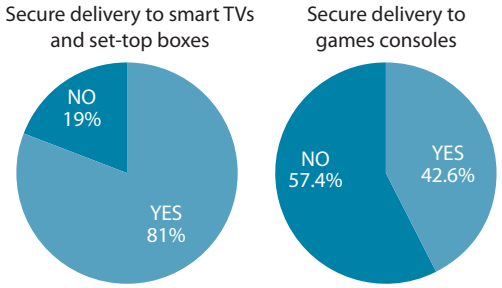
Fig 6: How important will the following be in your strategy over the next 12 months?



Scale 5-1
(5 = most important, 1 = least important)

Asked if they have concrete plans in place for the delivery of content to these categories of devices, the vast majority of survey respondents – over four in five – say they have clear and cost-effective plans for the delivery of secured content to set-tops and smart TVs, while a clear majority have no plans to deliver to game consoles (Fig. 7).

Fig 7: Do you have a plan to deliver content to the following over the next 12 months?



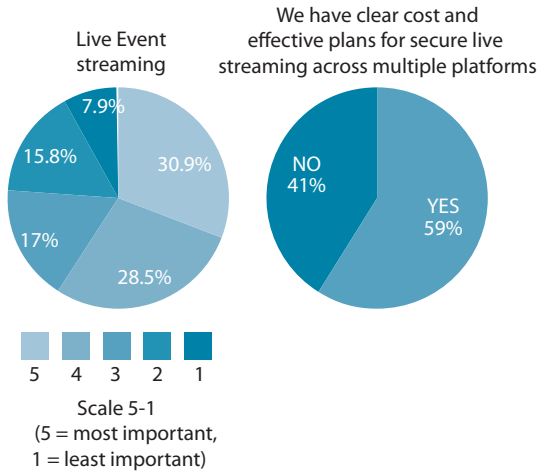
Live streaming

Set-top boxes and smart TVs are seen as key devices alongside tablets, and operators are looking to complement their current on-demand offerings with live streaming services.

Three in ten respondents give live event streaming a top score on a scale of 5-1 as an important strategy for video service providers in the next 12 months, while three in five give it a score of 5 or 4.

A clear majority – three in five respondents – also say they have a clear and cost-effective plan for the delivery of live streaming services. (Fig. 8).

Fig 8: How important is live event streaming in your plans for the next 12 months?



Operational & strategic challenges

Video service providers face a number of operational and business challenges as they roll out on-demand and multiscreen services.

Most providers deliver free-to-view as well as transactional services, and advertising is therefore likely to be an important revenue opportunity. However, operators face challenges in realising advertising revenues as they expand the reach of their content to new devices.

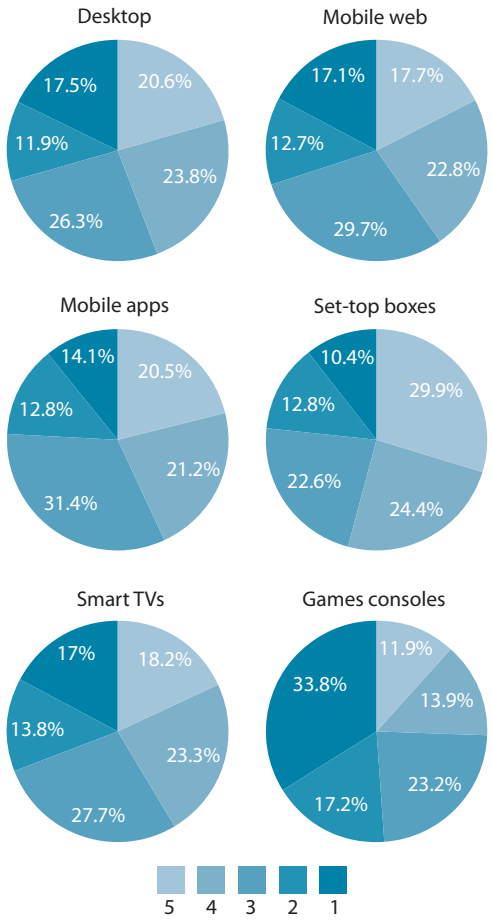
Respondents to our survey express strong confidence in audience measurement techniques only for the set-top box, and only average confidence in audience or usage measurement for other devices. While desktops and mobile apps perform moderately well in delivering audience measurement, there is less confidence in the ability of the mobile web and smart TVs to do so. Least effective of all, in the view of respondents, are game consoles. (Fig. 9).

Overall, operators identified monetisation as the single most challenging aspect of multiscreen and on-demand distribution, with a third giving this a top score of 5 on a scale of 5-1 for degree of difficulty, and over three in five giving it a score of 5 or 4.

Respondents also see security issues and the overall challenge of delivering content to multiple devices as difficult, with over half of respondents giving both aspects a high score of 5 or 4 on a scale of 5-1.

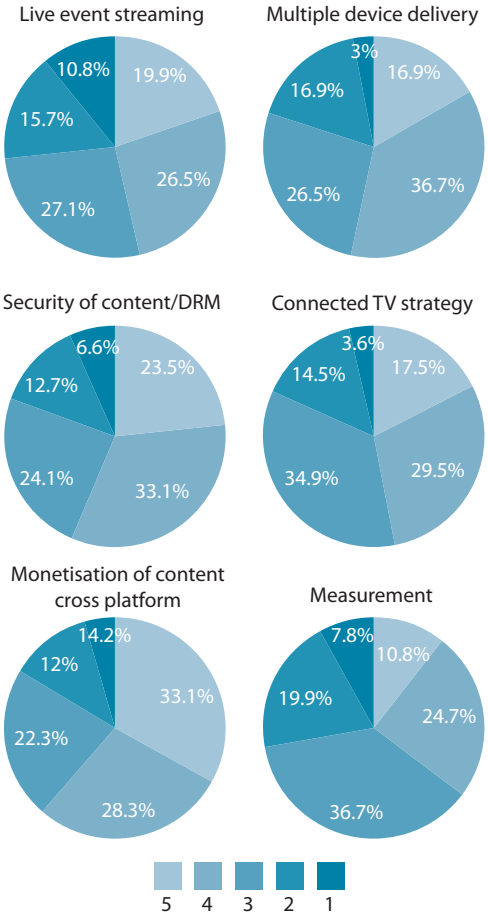
Operators also find having an overall strategy for connected TV to be moderately challenging (Fig. 10).

Fig 9: How well are you measuring usage across these platforms?



Scale 5-1
(5 = very effectively, 1 = not very effectively)

Fig 10: How difficult are the following for service providers?



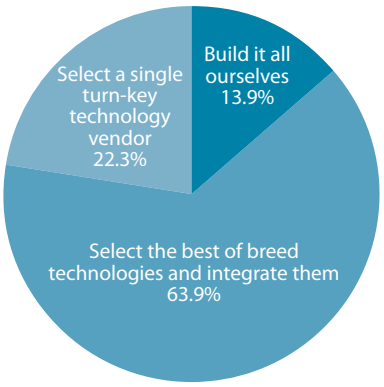
Scale 5-1
(5 = most difficult, 1 = least difficult)

Technology solutions

Given that they see many operational and commercial issues as challenging, it is no surprise that multiscreen providers are no longer looking to build their own technology infrastructure. Asked what they believe is the best strategy for acquiring video delivery technology, only 13.9% of respondents say they think a 'build it yourself' approach makes sense.

While service providers clearly do not want to become technology companies, a clear majority – 63.9% – nevertheless express a desire to take ownership of the overall design of their distribution platform by acting as the system integrator for best-of-breed technology solutions that they choose. A significant minority – just over one in five respondents – say they are happy to turn over

Fig 11: What is the best technology strategy?



infrastructure design and implementation to a third party by choosing a single turnkey technology vendor the manage the project (Fig 11).

Forward planning

Service providers' lack of willingness to spend time and effort building their own technology platform may be connected to their uncertainty about what the future holds for on-demand and multiscreen video delivery in general.

Asked how confident they are that the current infrastructure they have put in place for video delivery will last the course over the next two to three years, a majority of respondents – seven in ten – say that it would. However, an absolute majority – 56.9% – add the caveat that their infrastructure "needs improving".

Of the remainder, just over one in five don't know whether their infrastructure will meet their needs over next few years, while a smaller minority express little or no confidence that it would do so (Fig. 12).

The need for flexible technology and ongoing updates to the platform means service providers need to support a growing range of standards and formats for video compression, adaptive streaming, encryption and packaging standards.

Asked about their plans to deploy services based on four related standards, a majority of respondents say they are planning to deploy services based on next-generation compression standard H.265, with a slightly smaller number saying they have plans for services based on the MPEG-DASH adaptive streaming format. About two in five say they will support the Common Encryption Standard, MPEG-DASH's equivalent of DVB Simulcrypt that enables service providers to implement multiple DRMs within MPEG-DASH streams. About a third say they plan to deploy services based on the Hybrid Broadcast Broadband (HbbTV) standard, which supports MPEG-DASH-based adaptive streaming (Fig. 13).

Perception of value

Flexibility and a willingness to embrace new technology developments are important to create platforms that are future-proof. But ultimately, the value of a video delivery is in how useful it is to consumers.

Asked to rate a range of qualities in an online video platform for importance, two thirds gave quality of the end user experience the top score on a scale of 5-1 – much higher than any other quality. Content security is also rated highly, as is cost, scalability, flexibility and ease of management of platforms.

Respondents grant a more moderate – but still significant – degree of importance to the ability to integrate with existing technology investments and seamless cross-device delivery. The innovativeness of the platform, and its ability to support multiple advertising methods are seen as slightly less significant, as is a responsive player design. Less importance is given to control over branding and aesthetics (Fig. 14).

Fig 12: Will your current video infrastructure support your needs for the next 2-3 years?

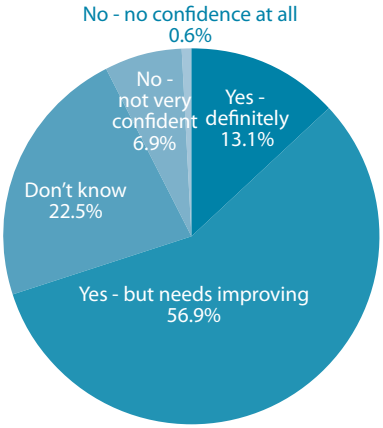


Fig 13: Do you plan to support the following standards?

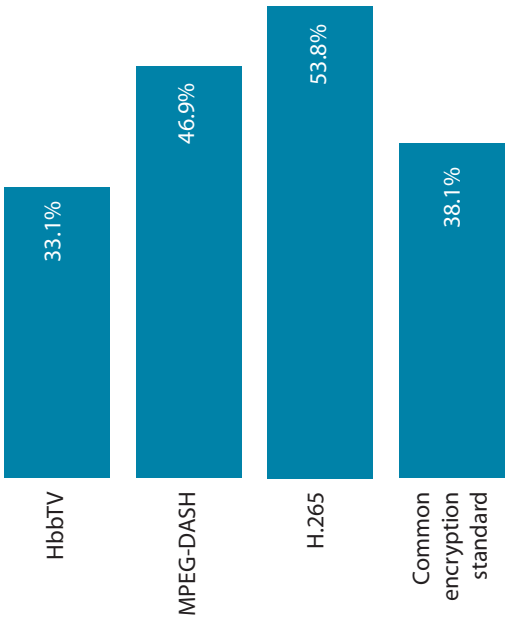
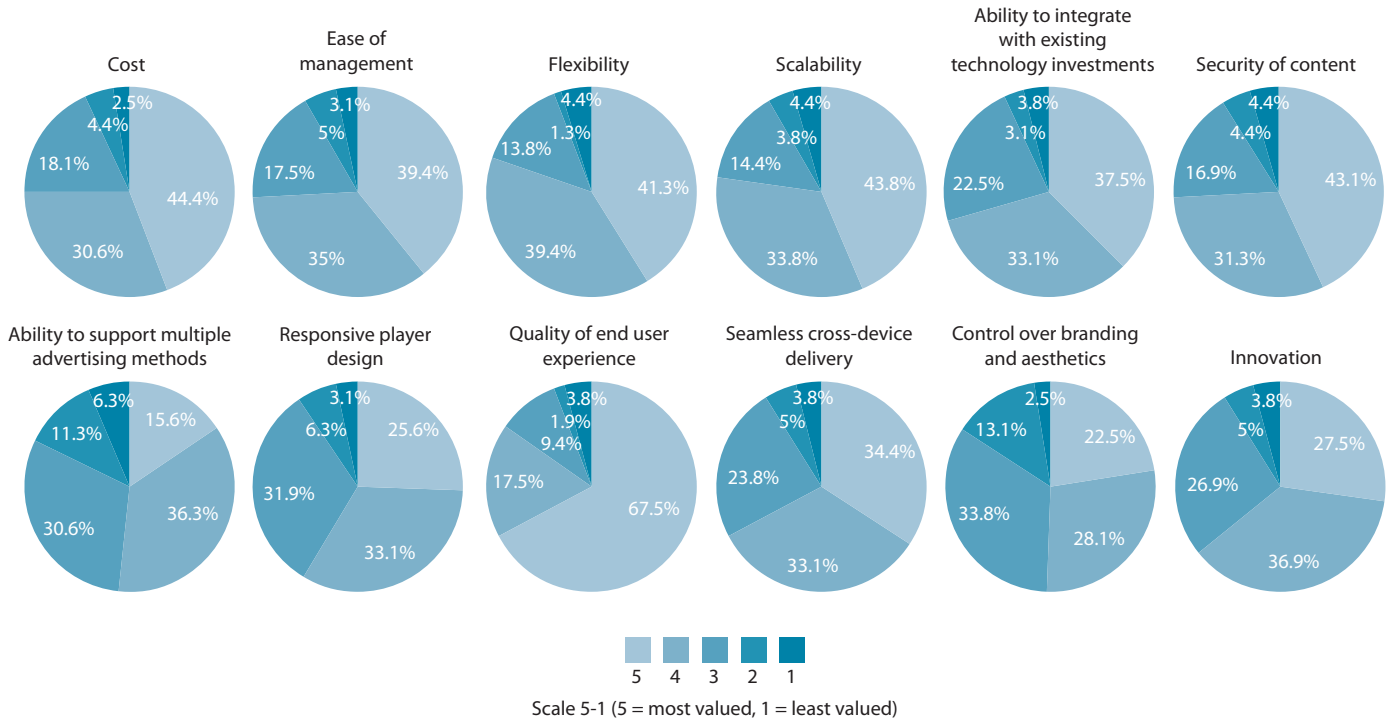


Fig 14: How much do you value the following qualities in an online video platform?



Scale 5-1 (5 = most valued, 1 = least valued)

Conclusion

TV operators are embracing multiscreen and OTT delivery, but remain uncertain about the commercial viability of services. Operators are already targeting a wide range of devices, but still view set-top boxes as the best way to secure and monetize content. Other devices favored by service providers include tablets, smart TVs and mobile apps, with the last of these also seen as a reasonably good way to monetize content. Game consoles are by some measure the least-favored multiscreen device.

Over the near term, operators are prioritizing the delivery of content to devices, including set-tops and smart TVs, with game consoles seen as less important. Operators are also looking to deliver live TV services to multiple screens to complement their on-demand offerings, with a majority having a clear plan to add live content to their multiscreen offerings.

After monetization, service providers see the fragmented nature of the device and platform landscape as their principal challenge. Operators also have concerns about security, with set-tops still seen as more secure than other devices. Other challenges include accurate audience measurement – a majority of survey respondents see the set-top box as the device that can deliver the most accurate audience measurement statistics.

Service providers still face uncertainty over the future direction of multiscreen services, so they are keen to retain a degree of flexibility about the technical delivery platforms they put in place. A majority believe the infrastructure they have put in place will do the job for the next two to three years – but that it will need to be improved. Technical challenges faced by operators include the need to support new compression and adaptive streaming formats – notably H.265 and MPEG-DASH.

Finally, service providers continue to believe that the user experience is the most important quality in a multiscreen video platform, with content security also seen as highly important.

Glossary

Cable operators: Companies that deliver video services to their customers using hybrid fibre coaxial fixed-line networks, typically using broadcast technology based on the DVB-C standard.

Device: In this paper 'device' refers to any equipment used by consumers to gain access to video services – whether set-top boxes, smart TVs, game consoles, tablets, laptops, desktops or smartphones.

DTH operators: 'Direct-to-Home' operators are companies that broadcast video services to their customers via geostationary satellites. Also known as DBS (Direct Broadcast Service) operators.

IPTV operators: Companies that deliver video services to their customers, generally over fixed-line copper telecom networks or fibre networks, using Internet Protocol technology, typically using multicast technology.

Live streaming: The deliver of linear TV services – as opposed to on-demand content – over the internet in real time.

Mobile apps: These are applications – in this case specifically those that support the delivery of streaming or on-demand video services via mobile networks or WiFi – that can be pre-loaded or downloaded by users to smartphones and tablets.

Mobile web: This refers to internet services – in this case more specifically video services – delivered via mobile networks, but accessed via a browser rather than native apps (see above).

Multiscreen TV: Refers to the distribution of video content to a wider range of screens than traditional TVs, such as tablets, smartphones, PCs and game consoles.

OTT (Over-the-Top): Refers in this context to the delivery of video services over the open internet rather than a managed network such as that typically owned and operated by cable operators or IPTV operators.

Pay TV channels: TV services that are offered for a subscription rather than offered for no charge and supported primarily by advertising. Generally referred to in the US as cable networks.

Platform: In this paper 'platform' refers to the overall technology infrastructure required to support the delivery of video to one or more devices for playback (viewing) by end users.

Set-top box: A device in the home specifically configured to decode and convert video for playback on a TV screen.

Smart TV: A television that is connected to the internet, typically using a user interface or onscreen portal provided by the manufacturer, and that provides a range of OTT services, including on-demand content and internet TV channels in addition to traditional TV channels or networks delivered by broadcasters.

Triple-play operators: companies that deliver video, voice and broadband data services to residential customers.

VoD operators or providers: Companies that offer video content on-demand to customers that request particular titles, VoD operators may also offer a range of broadcast channels to their customers

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