

# THE RISE AND RISE OF OTT MEDIA

A perspective on the ecosystem  
and what lies ahead



by docomo digital



## FOREWORD



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CEO

Media consumption has changed indelibly over the past decade, with over-the-top (OTT) media services now an established part of the mainstream. In this short span, they have evolved from being just providers of content to creators of content. In fact, online video platforms have already started producing more original content than traditional media providers.

Given the surge in mobile internet penetration and improvements in the underlying infrastructure, these trends are likely to continue. Data reveals that an increasing number of people—especially the young—are spending more time consuming media online than through traditional mediums.

Improving efficiency and the user experience is the order of the day, particularly as the market continues to witness new entrants – both regional and global. It is something OTT companies are mindful of, and acting on.

It is a market that continues to grow, and an ecosystem that continues to evolve. We have more subscribers, many more media platforms, more content, and dare we say, more issues the industry must contend with! With the “streaming wars” underway, it is imperative for OTT service providers to solve for scale and access, especially in emerging markets, by developing strategic partnerships with telecom carriers.

We at DOCOMO Digital are pleased to present this new report, which we hope will help you better understand the state of the OTT media industry globally, changes in media consumption underway and how might the industry address some of the challenges and opportunities it is confronted with.



**Dheeraj (Raj) Soni**  
President, Payments business

## KEY TAKEAWAYS

- There has been a distinct shift in media consumption. From being industry-controlled, the disruption we are seeing is now consumer-controlled. But the industry continues to evolve, and there are signs this is changing once again.
- Quality content and increased personalisation of content are key distinguishing factors in a market with an ever-growing number of OTT media service providers.
- Streamlining payment options and enhancing the user experience are key tools, both for acquisition and retention, for most OTT companies.
- OTT media is here to stay and its growth will continue, particularly as data becomes cheaper, data speeds become significantly quicker with the advent of 5G, and as the number and sophistication of devices explode.
- In some markets, both digital infrastructure and access to credit cards still lag. This impacts the consumer in terms of streaming quality and payments.
- A large part of where the market will go is dependent on the availability of payment options beyond the traditional cards and the ease with which consumers can pay for services.
- With an increasing number of companies entering the fray, original content is going to be a key determinant of success in this market and it is where companies will expend their energies.
- Are we going to see media consumption come full circle with consumers subscribing to multiple OTT services just as they did with cable television channels? Time will tell.



# INTRODUCTION

“We think that 5G is going to fundamentally enable us to open up all sorts of new screens in places that previously haven’t been easy or practical to get to.”

Thomas Gewecke, Chief Digital Officer, Warner Bros  
speaking at Mobile World Congress, Los Angeles, Oct’19



There is a fundamental and lasting shift underway in how media is produced and how it is consumed. Where television was once the only source of video content available, the advent of breakthrough technologies has changed all of that. And how. Consumers of content now have the freedom to view videos “on-demand” on a variety of devices, at their own convenience and at a lower cost.

The over-the-top (OTT) segment as a whole is expected to grow from US\$97.4bn in 2017 to US\$332.5bn by 2025, an astounding CAGR of 16.7%. Video services presently make up more than a third of the entire OTT market. There is a bevy of video service providers currently, with Netflix, Amazon, Apple and a host of others developing their own original content in addition to licencing existing content.

The change is not limited to the developed economies – we’re witnessing transformational change in the way video content is being consumed in emerging markets globally, driven by the increasing availability of and accessibility to cheap mobile data services and the boom in the number of hand-held devices in use.

In addition to increased mobile and data connectivity, lower-value content in the linear or cable television segment is also driving higher OTT video consumption. The roll-out of 5G services will only further enhance the popularity—and use—of OTT platforms since it will enable consumption of innovative and exciting offerings such as multiplayer cloud gaming and high definition video content, including streaming of live sports enmeshed with mixed-reality experiences. The rollout of 5G services will also provide a fillip to the provision of bundled services between mobile operators and OTT media service providers.

OTT has made possible what traditional media has failed to do, by providing large databases of video content inexpensively, with consumer choice and viewing capabilities across multiple connected devices. Everybody seems to be jumping onto the bandwagon now, with telecommunication companies, channel producers and the technology giants creating their own OTT platforms to benefit from these various shifts being witnessed in the market.

OTT falls under a much larger video-on-demand (VOD) umbrella and is further sub-typed based on its revenue models. Hulu, for example, is a popular VOD service that uses a subscription-based revenue model, having ended its free service in 2016. Meanwhile, Roku is a device-led advertising-based video-on-demand (AVOD) aggregator and allows the viewing of both free and paid content via the internet. OTT platforms such as Netflix, Amazon, Hulu and others can be downloaded onto a Roku device in much the same way as apps can be downloaded onto a smartphone. A key differentiator in the case of Netflix is that it serves as a ‘streaming only’ platform. There are also transactional video-on-demand (TVOD) services such as Amazon Instant Video, where users can pay for individual pieces of content.

A key aspect of this content consumption revolution is payments. A seamless payment system is as critical as high quality content, and OTT service providers must consider payment options that enable higher client acquisition and retention. For example, using direct carrier billing is the quickest form of payment in the market today, and increasingly popular, as the number of mobile phone accounts far outstrips the number of credit cards. In addition to bundling, we are also seeing a plethora of alternative payment modes such as digital wallets, each bringing something to the table.

The future of OTT is promising for players ready to leverage the bleeding-edge of technology. Machine learning and artificial intelligence in analysing consumer behaviour can enable the personalisation of content, at scale. Blockchain technology can be incorporated to protect original content from copyright infringements. Payment systems are becoming increasingly innovative and embedded within the OTT interfaces. Facebook, in an interesting move, is launching a social virtual reality platform called Horizon in 2020. How will the broad-based rollout of 5G and adoption of such new experiential technologies exacerbate changes in the OTT ecosystem is difficult to fathom today.

<sup>1</sup>Bloomberg. Over-the-top (OTT) market to reach \$332.52 Bn, globally, by 2025 at 16.7% CAGR, says Allied Market Research. Available online at: <https://www.bloomberg.com/press-releases/2019-06-04/over-the-top-ott-market-to-reach-332-52-bn-globally-by-2025-at-16-7-cagr-says-allied-market-research>.



## PART 1: THE GROWTH OF OTT

Video content has traditionally been consumed by means of a television, connected to a set-top box provided by a cable operator. An individual's viewing pattern was governed by show timings and hardware like Tivo back in the day allowed for limited recording of content.

Fast forward to the mid-2000s and viewers were witness to the arrival of "on-demand" services. A viewer could now watch a programme of his or her preference at any given time. Furthermore, viewers could now "binge-watch" if they chose to and could even do so across devices.

However, while binge-watching has its many takers, the flavour of anticipation was largely lost. It cannot be denied there was a certain excitement earlier in waiting for the next episode of a show. Disney+ is one OTT platform now trying to recreate this element of anticipation of the old TV era by only making available 2-3 episodes of a series per week. It is something Netflix is also now experimenting with, after having been a pioneer in making an entire series of flagship original shows available at once.

The popularity of OTT video services is on the rise owing to the flexibility and "ownership" it gives consumers – content can be viewed anytime and anywhere with an internet connection and compatible hardware.

The OTT revolution can be traced to the US, where it first disrupted the video rental business. Established market leaders in the rental space such as Blockbuster were soon to lose relevance. The number of households consuming OTT content in the US has grown by over 25% in the past two years (see Exhibit 1).<sup>2</sup>



<sup>2</sup> Comscore. The State of OTT. Available online at: <https://www.comscore.com/Insights/Presentations-and-Whitepapers/2019/State-of-OTT>.





The bulk of time is spent on platforms such as Netflix, YouTube, Hulu and Amazon while virtual multichannel video programming distributors (MVPD) including SlingTV, DirecTV Now, PlayStation Vue and Philo contribute to the second largest duration of time spent in OTT consumption. Netflix and Hulu follow subscription-based revenue models, and they will be joined by Disney+ and Apple TV, both expected to launch in November 2019.

YouTube, the largest free-to-view VOD provider globally, depends on revenue generated from advertisements. Meanwhile, Amazon, an e-commerce platform, wears many hats. It made its foray into the OTT segment with Prime Video, giving subscribers access to a vast library of videos and music content. It upped the ante by introducing the Amazon Fire TV Stick, which has features similar to Roku. However, Amazon's offering differs from Roku in that it also offers access to games and its voice-controlled AI offering Alexa.

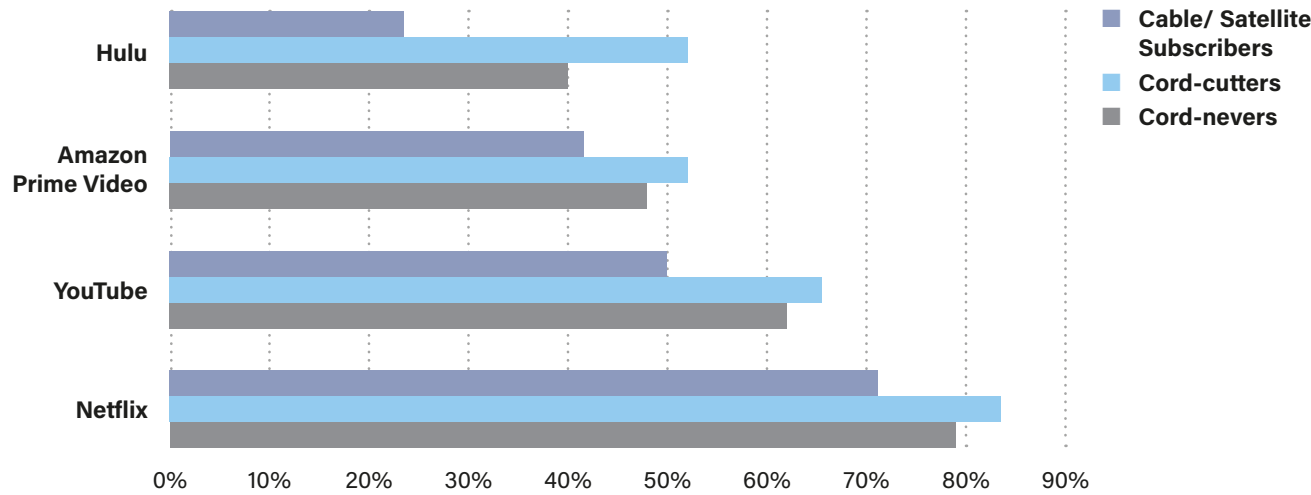
Separately, Sling TV, AT&T TV Now (formerly DirecTV Now), Philo and PlayStation Vue are app-based live TV providers. These allow subscribers the freedom to select the channels they wish to view on a device of their choice.

But it isn't only developed markets such as the US that are witnessing a surge in the popularity of OTT media services. Emerging economies in Africa, Latin America and Asia too are seeing unprecedented changes in media consumption. Rapid improvements in mobile internet connectivity have gone hand-in-hand with increasing per capita incomes and increasing smartphone penetration to boost the potential market for OTT companies. Additionally, many emerging economies—particularly in Asia—are at the forefront of innovation in payment options, another critical consideration for OTT entrenchment.

The popularity of subscription-based video-on-demand (SVOD) is also on the rise in Asia, given consumers are willing—and able—to pay for high quality content. Between 2017 and 2023, for example, the number of SVOD accounts in Asia is estimated to increase from 155m to 791m, a five-fold increase in just six years (see Exhibit 2).<sup>3</sup> Similar stories are playing out in other regions of the world, underpinned by the same macro-technological and macroeconomic factors.

<sup>3</sup> GlobalData.

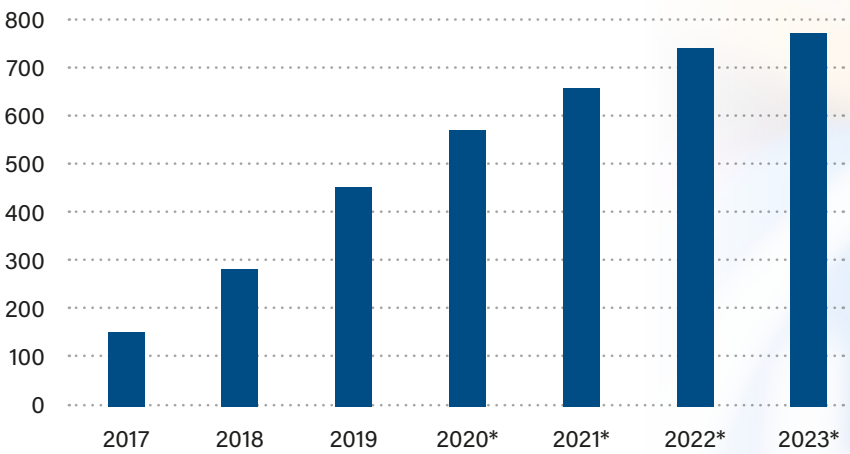
**Exhibit 1: Percentage of US households using OTT**



*Note: Cable / Satellite Subscribers are homes that have a traditional pay-TV subscription; cord-cutters are homes that cancel a pay-TV subscription, opting for internet-based services; and cord-nevers are homes that have no pay-TV subscription.*

Source: Comscore

**Exhibit 2: Number of SVOD accounts in Asia**



*Note: The numbers for 2020-2023 are estimates.*

Source: GlobalData



# PART 2: CHANGING CONSUMER BEHAVIOUR

Consumers are allocating more time to OTT content consumption, supported by the factors described above. There has also been a significant surge in subscriber numbers given the pain points in traditional cable television services – dissatisfaction with cable television services has been largely based on the premise that value derived is not in line with the pricing.

The irreversible change that has gripped media consumption is the medium. The former linear or cable television segment is most affected by changing media consumption habits. Much as it may seem that digital media is being consumed more by the millennial demographic, the baby boomer generation is also catching-up quickly. Many

social media companies are seizing this opportunity by making inroads into the video content broadcasting space. Social networks are influencing their members to tune-in to their own short-form videos as well as television-like programming. Additionally, they are also starting to bid for live sports, entertainment and original series.<sup>4</sup>

According to a recent Global Web Index report, millennials are the only age group watching more than an hour of online television per day (see Exhibit 3). They also devote more than almost three hours daily to social media, more than any other demographic. The baby boomer segment has reported increases in content consumption over all digital mediums too, with the exception of console gaming.<sup>5</sup>

## Exhibit 3: Online media behaviour by age

Number of hours and minutes per day typically devoted to the following

	ALL	16-24	25-34	35-44	45-55	55-64	
Total Media Time	06:45	07:44	07:17	06:17	05:31	04:46	
Online TV	01:10	01:17	01:22	01:09	00:53	00:39	
Music Streaming	01:14	01:39	01:24	01:05	00:47	00:29	
Online Press	00:59	01:01	01:08	01:00	00:47	00:35	
Social Media	02:20	02:57	02:34	02:04	01:37	01:14	
Other	01:02	00:50	00:49	00:59	01:27	01:49	Source: GlobalWebIndex

Of the 41 economies studied by GlobalWebIndex, there are only 7 in which consumers spent more time on traditional media than digital media. This was mostly on account of an older population base of digitally conservative viewers in the more demographically mature markets – Japan and a few economies in Europe.

There are other reasons explaining this trend too. In the US, the resilient popularity of traditional cable television has meant continued preference for traditional media. In the case of Western European markets such as Belgium,

France, Germany and the Netherlands, meanwhile, there is a relative lack of interest in social networking.

Indeed, there are distinct differences that emerge when analysing individual markets in terms of time allocated for media consumption. Thailand leads the pack in terms of daily time devoted to media with a whopping 13 hours and 42 minutes per day, followed by Brazil and the Philippines, where viewers allocate over 13 hours a day to media consumption.<sup>6</sup>

According to the Boston Consulting Group, OTT is changing the fundamentals of content creation and consumption through three transformational changes – space shifting, place shifting and time shifting.<sup>7</sup>

**Space shifting.** Brick-and-mortar retailers such as Walmart and facilities-based distributors are not the only means of video and music distribution. There are now digital subscription services such as Spotify that have unlimited (virtual) shelf space and offer up to 50m tracks to their customers without the constraints of distribution and space. While this has made life easier for purchasers of content, it has also meant that almost anyone can create content of their own in one country and “sell” it across continents. The internet has resulted in deeper depth and breadth of content available by overcoming erstwhile constraints.

**Place shifting.** Consumers can now choose not only what they watch, but also how and where they watch it. Much of the increase in time spent on media can be attributed to increased smartphone usage and the increasing prevalence of short-form video content, something BCG aptly refers to as “snackable content.” Live event streaming by individuals, often of public and political events, or even clippings recorded from events or day-to-day lives, are all becoming more popular given that smartphones can help both in the creation as well as the consumption of this kind of content.

**Time shifting.** Viewing hours are currently non-linear, meaning the viewer alone decides on how long or how many episodes of a show he or she wants to watch in one sitting. Certain entertainment content such as serial dramas encourages binge-watching. In the past, consumers were only able to view a programme when it was aired or wait for it to be available to rent, purchase or watch in cable syndication. This has since given way to subscription-based platforms that have current and past episodes going back a few years.

It is no surprise, therefore, that many consumers around the world are now subscribed to more than one OTT media service. In fact, given the number of OTT media providers entering the market as we speak, there are some question marks over how consumers will respond. Whether we will see what is being dubbed as “subscription fatigue” or whether individuals will increase the number of services they have paid subscriptions to, remains to be seen. As late as in November 2018, however, an estimated 34% of OTT subscribers in the US reported that they will likely increase the number of subscription services over the next few years, despite being signed up for an average of three subscriptions already,<sup>8</sup> indicating that there are little signs of fatigue yet.

<sup>7</sup> Boston Consulting Group. The future of television: The impact of OTT on video production around the world. Available online at: <https://www.bcg.com/publications/2016/media-entertainment-technology-digital-future-television-impact-ott-video-production.aspx>.

<sup>8</sup> TechCrunch. Subscription fatigue hasn’t hit yet. Available online at: <https://techcrunch.com/2019/05/22/subscription-fatigue-hasnt-hit-yet/>.

<sup>4</sup> Deloitte. Digital media trends survey, 13th edition. Available online at: <https://www2.deloitte.com/insights/us/en/industry/technology/digital-media-trends-consumption-habits-survey.html>.

<sup>5</sup> GlobalWebIndex. Digital vs traditional media consumption: Trend report 2019. Available online at <https://www.globalwebindex.com/reports/traditional-vs-digital-media-consumption>.

<sup>6</sup> Ibid.





## PART 3: THE OTT ECOSYSTEM

There are a variety of OTT models in the market today, and they can be broadly split into SVOD, AVOD and TVOD.

In the case of SVOD, the consumer must have an active subscription which could range from daily or weekly to monthly or an annual arrangement to access a database of videos (as in the case of Amazon Prime Video, Hulu or Netflix). TVOD users, meanwhile, buy content on a pay-per-view basis. These services can be registered for without any fee, with users only paying for the specific content they watch. Examples of TVOD services include Google Play, iTunes and Amazon Instant Video, among others. AVOD is an ad-based digital video service that is free for its core users. A popularly used example is YouTube, and others include Crackle and Vudu. The revenue generated from advertisements is used by the companies to offset production and hosting costs and to monetise content.

And then there are OTT companies that operate a dual income model to cater to different consumer preferences. Hong Kong-based Viu, which is a part of PCCW Media, has AVOD and SVOD options and derives a roughly equal share of revenue from advertising and subscriptions.



### MARKET SIZE AND POTENTIAL FOR GROWTH

Global SVOD segment revenue grew by 8.1% in 2019 to reach US\$24.8bn and is expected to grow at a CAGR of 3.2% between now and 2023 to reach US\$28.2bn by that year.<sup>9</sup> There are three factors that will underpin the growth prospects of the SVOD market in the years to come.

The first is the geographic distribution of revenue. As of today, the US alone accounts for US\$11.4bn (or 46%) of global SVOD revenue. This means that as SVOD services become more popular in other parts of the world, there is tremendous scope for growth in revenues from markets outside of the US.

Second, the SVOD market is still only in its infancy, given that global user penetration currently stands at a meagre 14.5%. This too demonstrates the scope for growth in user penetration, particularly as data becomes cheaper and speeds become quicker in emerging economies around the world.

Third, SVOD currently generates an average annual revenue of US\$23.2 per user, which suggests there is scope for an increase, particularly as new modes of monetisation are implemented.

Separately, revenue in the TVOD segment stood at almost US\$4bn in 2019, having grown by 7.7% over the year. This segment is expected to witness a CAGR of 4% between now and 2023, and total revenue is expected to reach US\$4.6bn by 2023. TVOD user penetration is even lower than SVOD, at 5.3%.<sup>10</sup>

Revenue generated from video downloads, meanwhile, stood at US\$4bn in 2019 and is expected to deliver US\$4.5bn by 2023.<sup>11</sup>

OTT-based advertising revenue is rapidly catching up with other revenue from other OTT models, reaching US\$2.7bn in 2018 according to Magna Global, representing a year-on-year growth of 54%. By 2020, advertising revenue is expected to grow to a staggering US\$5bn.<sup>12</sup> Hulu alone reached advertising revenue of US\$1.5bn in 2018.<sup>13</sup>

<sup>9</sup> Statista. Video streaming (SVOD). Available online at: <https://www.statista.com/outlook/206/100/video-streaming--svod-/worldwide>.

<sup>10</sup> Statista. Pay-per-view (TVOD). Available online at: <https://www.statista.com/outlook/205/100/pay-per-view--tvod-/worldwide>.

<sup>11</sup> Statista. Video downloads (EST). Available online at: <https://www.statista.com/outlook/207/100/video-downloads--est-/worldwide>.

<sup>12</sup> Digiday. The next front of the streaming wars is the battle for ad-supported programming. Available online at: <https://digiday.com/media/inside-race-scramble-ad-supported-ott/>.

<sup>13</sup> Ibid.



## NEW ENTRANTS

The OTT market will continue to see an array of new players in the coming months, in addition to established players such as Netflix, HBO Now, Hulu and Amazon Prime. US-based telecommunications giant AT&T completed its US\$85bn purchase of Time Warner in June 2019 and will launch a direct-to-consumer offering – HBO Max, later this year with content from Warner Media, including content from HBO and the Warner Brothers library.

Disney's offering in the OTT segment is Disney+, which is expected to launch in late 2019. Its app will feature programming from brands such as Disney, Pixar, Marvel and Lucasfilm. This could potentially be a gamechanger as Disney withdraws its original content from other OTT providers like Netflix in due course.

Apple too has approved several original shows over the past year to be streamed on its platform called Apple TV Plus. Elsewhere, Discovery Inc. is said to be considering a direct-to-consumer offering that will possibly see several brands like HGTV, Food Network and TLC, bundled into one channel. Viacom, a US mass media conglomerate, has launched its "NickSplat" channel on video aggregation platform, VRV.<sup>14</sup>

There are also a host of other services catering to niche or smaller segments of the market, comprising the likes of The Criterion Channel, Crunchyroll and Shudder.<sup>15</sup> Pricing will vary significantly, starting at US\$3 for AVOD to US\$16 for premium high-definition ad-free experiences.

In keeping with the industry trends, many of these players are looking at emerging markets to fuel further growth. In India, Reliance Jio, a telecom operator with 355m subscribers,<sup>16</sup> is proving to be a gamechanger. For instance, its spectacularly low pricing pushed average monthly data usage per subscriber from under 1GB in 2017 to more than 4GB in 2018.

Additionally, parent company Reliance Industries, which is India's biggest conglomerate, has already purchased stakes in popular homegrown OTT platforms – which means that in one sweep,

it could provide content to 355m users in one country alone. In fact, it is signing on a few million new subscribers each month. To put this in perspective, Netflix has 150m subscribers globally.<sup>17</sup> Reliance could possibly use its firepower to acquire other leading OTT platforms and use its own telecom infrastructure for content provision and payments, creating a full OTT ecosystem of its own.

## PERSONALISED CONTENT TO INCREASE VIEWERSHIP

The key to retaining users lies in the usage of a recommendation engine that suggests content to users based on their preferences.<sup>18</sup> Anonymous users are harder to track across viewing sessions or different devices, and users can, therefore, be coaxed into creating an account on OTT platforms, apps or sites by incentivising them to do the same. This could be in the form of access to new content, email updates or free trials in exchange for their email addresses or other such user information. Several payment options must be provided to ensure that potential customers are offered adequate choices and are subsequently retained beyond the "trial period". OTT service providers must solve for the lack of credit cards not only in emerging markets but also among the young in more mature markets.

OTT platforms looking to expand across regions could also consider the option of offering content dubbed in different languages to make sure their content can "travel" across geographies without the constraints of language. Soumya Mukherjee, head of revenue and strategy at Hoichoi, an India-based OTT platform, says as much: "We discovered at the end of last year that dubbed content is being consumed very actively, and that is an attractive source for us to acquire new users."

<sup>14</sup> Adweek. OTT overload: All the media companies preparing to launch new streaming services in 2019. Available online at: <https://www.adweek.com/tv-video/ott-overload-all-the-media-companies-preparing-to-launch-new-streaming-services-in-2019/>.

<sup>15</sup> The Verge. Streaming wars. Available online at: <https://www.theverge.com/streaming-wars>.

<sup>16</sup> YourStory Media. Reliance Jio crosses 355 million subscribers, net profit up 45.3 pc. Available online at: <https://yourstory.com/2019/10/reliance-jio-quarterly-net-profit-subscribers-mukesh-ambani>.

<sup>17</sup> The Motley Fool. Netflix passes 150 million global subscribers. Available online at: <https://www.fool.com/investing/2019/07/17/netflix-passes-150-million-global-subscribers.aspx>.

<sup>18</sup> Emerj. Use cases of recommendation systems in business – current applications and methods. Available online at: <https://emerj.com/ai-sector-overviews/use-cases-recommendation-systems/>.





## PART 4: MARKET OVERVIEW

### WHAT MODEL?

Many OTT services rely on a subscription model for revenue generation. With the rapid growth in the number of OTT service providers, the choice of payment is a crucial one – a choice that could dictate whether a potential subscriber will continue to use the services of one OTT platform or not. User retention is going to be a key challenge and OTT service providers that are present in different markets need to strategise effectively depending on the regulatory, digital and payment infrastructures in those markets.<sup>19</sup> A case in point is Netflix, which despite being a global OTT leader, is perhaps not doing as well as it would have anticipated in India. Of its five million consumers in India, only an estimated 6-8% users are actually paying customers. The rest are discontinuing with their subscription plans upon expiry of the trial period. Even more impressive is the fact that India's home-grown OTT platform, Hotstar, offers more US-based shows than Netflix (itself an American company) and at only a third of the cost.<sup>20</sup>

In even more populous China, the initial preference for advertisement-based platforms has clearly yielded way to a subscription model. Malcolm Rogers, senior analyst at GlobalData, a UK-headquartered data analytics and consulting company, suggests, "If you look at China, the big players there such as iQiyi, Tencent Video and Youku initially started as ad-focused but have pivoted and made a big drive towards subscription-based services." He says appropriate pricing and carrier partnerships are big pieces of the subscription drive, but ad-supported video "isn't going anywhere in emerging markets and will be a substantial part of the market for the foreseeable future."

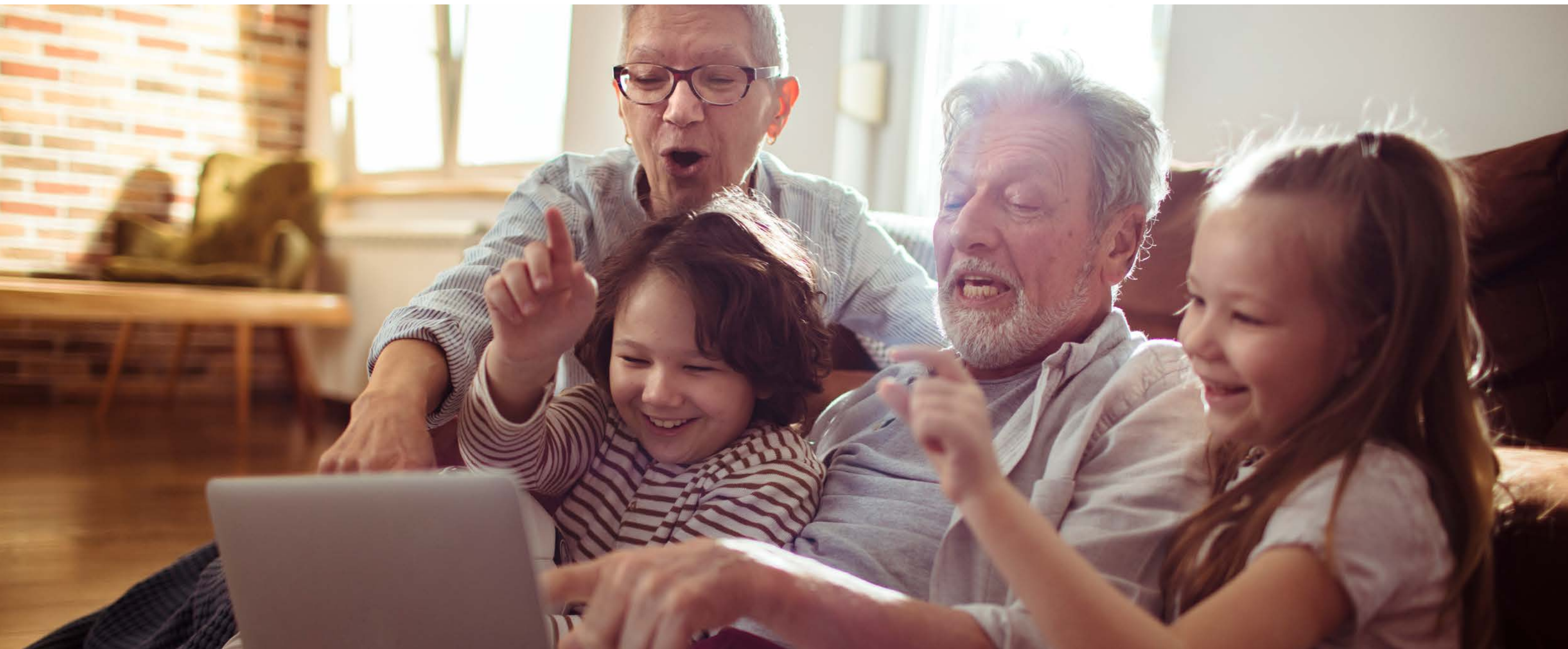
A subscription-based model perhaps works better in certain economies. But with individual users having multiple subscriptions, payments can become cumbersome. Relevant content aided by seamless payment gateways are priority

areas that can alleviate this pain-point, with transactions preferably completed in the least possible time. Besides being convenient, the payment platforms offered to consumers must also be economical. Credit card penetration is limited in developing countries, and choices such as mobile wallets and e-wallets must be part of the payment spectrum alongside telco bundling.

There may be a case for content aggregators, in this increasingly fragmented SVOD space, who can make content from several media providers available in a single interface. Comcast's X1, for example, is one such platform – it broadcasts live news and sports, and also consolidates content from Netflix and Amazon Prime, all at one location, thus allowing a user to access all of this streaming content through the X1 device.

<sup>19</sup> Deloitte Insights. Digital media trends. Available online at: <https://www2.deloitte.com/us/en/insights/industry/technology/digital-media-trends-consumption-habits-survey/shifts-streaming-highlights-over-the-top-video-appeal.html>.

<sup>20</sup> Android Central. Netflix is getting crushed in India, and it's all because of Amazon and Hotstar. Available online at: <https://www.androidcentral.com/netflix-getting-crushed-india-and-its-because-amazon-and-hotstar>.





# CONSIDERATIONS FOR OTT SERVICE PROVIDERS

At a macro level, there are several key issues that OTT service providers must consider. The first consideration is **user experience**. OTT service providers must accurately gauge the best possible way to deliver their content and enable users to easily find the programmes they are looking for. Just as a consumer is drawn to an attractive Brick-and-mortar store, the same cardinal rule applies to an OTT service provider. A slick user interface will inevitably gather more eyeballs, at least initially. A key part of the user experience is also the ease with which consumers can make **payments** for the service. Video streaming quality is another key component of a good user experience.

The second issue that must be addressed is that of **relevance**. Consumers want content that appeals to them. Despite some OTT media providers having a whole array of content, for example, users still often complain they have nothing to watch once they have binge-watched their favourite programmes. The popular NBC sitcom - Friends, for instance, remains the most streamed series on Netflix, their original content library notwithstanding.

The third is the **quality of content**. OTT services have positioned themselves as a replacement to linear TV and for these services to be considered as a credible alternative, they must be consistent in the services and content offered. The creation of fresh, innovative content is particularly important, in the wake of intensifying competition. Creating new content is expensive, and means that companies may be in the red even as their revenues increase, because of increased spending. One clear illustration of this is Netflix. The company recently announced that it will raise an additional US\$2bn through debt to fund its content budget. The company has a mind-boggling US\$15bn content budget for 2019 alone, and has been on a borrowing spree over the past five years to fund its massive spending. As of September 2019, Netflix reported US\$12.4bn in debt, up from US\$10.4bn nine months earlier.<sup>21</sup>

The fifth is **customer retention**, which in many ways is a combination of a few of the factors listed above. At the end of the day, a consumer must be willing to renew a subscription (or convert a free trial offer into a subscription) for an OTT service provider to be successful. This depends on the quality and relevance of content, the ease of payments and the overall user experience. One possible route to circumventing this problem could be to examine how telecommunication providers have used contracts. For example, a two-year contract binds a user to a particular operator. Coupled with the provision of smart contracts, OTT platforms could well consider this approach to boost both retention rates and revenue.

<sup>21</sup> Variety. Netflix to Raise Another \$2 Billion Through Debt to Fund Massive Content Spending. Available online at: <https://variety.com/2019/digital/news/netflix-debt-junk-bond-2-billion-content-spending-1203377007/>.



# PAYMENTS LANDSCAPE ACROSS REGIONS

In **Europe**, the options for payment vary by country. For instance, in the Netherlands, the national payment method iDeal is popular while in Germany the preferred mode of payment is through invoice and digital wallets.<sup>22</sup> Clearly, there is room for alternate payment options to be explored but the option that will eventually reign supreme is one that offers a seamless experience. This is even more relevant since users have multiple OTT subscriptions and will most likely forego subscription renewals when they are faced with payment inconveniences. Users want access quickly (fewer-clicks) and without having to submit their personal details repeatedly, which explains why digital wallets may gain traction. Provision for different payment alternatives will be key to driving subscription-driven revenue.

In this regard, Amazon has firmly established itself as a platform that can ensure conversions – it is able to attract paying buyers. Customer acquisitions have been known to register significant increases when OTT content providers have used Amazon's "Pay".

With increasing OTT subscribers in **Latin America**, there is a demand for different kinds of payment options. The usage of credit and debit cards are less prevalent in the region and OTT service providers must, therefore, establish direct customer relationship channels through the most pervasive "connections," the pre-paid mobile services. Partnerships with mobile carriers will, therefore, be crucial to success in the region for OTT players.

OTT streaming on handheld devices is to a large extent mobile data driven, and falling data prices and increasing data speeds have resulted in an increased usage of services that use data. OTT streaming has been one of the biggest beneficiaries of this development. Companies such as

Netflix were quick in identifying market trends and launched pre-paid Netflix cards. Consumers in the region are still getting used to different payment platforms such as PayPal and there is an increasing dependence on payment services. However, the key challenge that remains in Latin America is getting users to actually pay for OTT services.

The **Asia-Pacific** region has witnessed steady growth in the OTT segment, and holds tremendous potential. In recent months, there have been encouraging developments in terms of both the number as well as types of available payment options for subscribers looking to consume premium OTT content. Direct carrier billing, where users pay for content via their telco operators, is fast becoming popular. Currently, telco providers can provide this service as an extension of their existing payment mechanism. The global direct billing platform market is expected to grow at a CAGR of 13% between now and 2023.<sup>23</sup> Meanwhile, there is competition from other payment solution providers too. For instance, in Thailand, Kbank is a popular platform that has developed a sophisticated app that people have grown accustomed to and trust, while in India, Paytm is a popular mobile wallet.

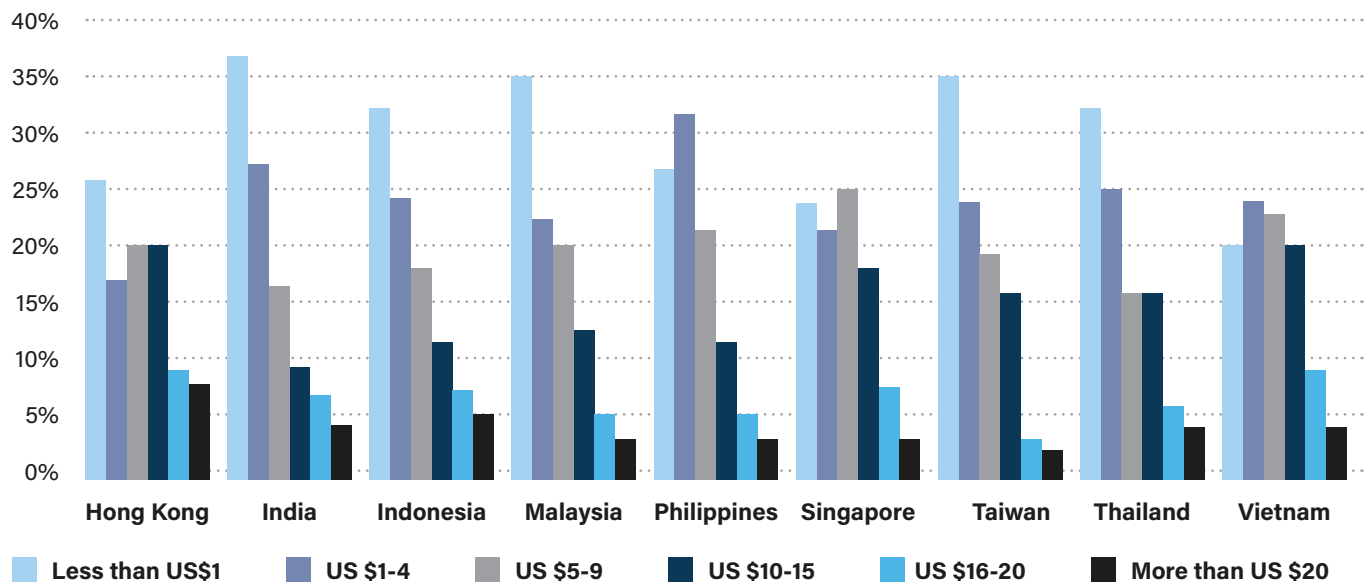
In a trend similar to Latin America, getting consumers to pay for OTT content is difficult in Asia. In Southeast Asia, which is home to more than 620m people, a majority of users desire a free OTT service. In fact, given the option, 28% would rather view advertisements than pay a fee. Of the 5,000 participants surveyed by Brightcove, a US-based cloud solutions provider, a mere 14% stated they would pay a higher subscription fee for content that was free of advertisements. One in five was in favour of viewing some ads and paying a lower price.

<sup>22</sup> Ecommerce News. Online payment methods in Europe. Available online at: <https://ecommercenews.eu/online-payment-methods-europe/>.  
<sup>23</sup> Global Banking & Finance Review. Global direct carrier billing platform market 2019-2023. Available online at: <https://www.globalbankingandfinance.com/category/news/global-direct-carrier-billing-platform-market-2019-2023-13-cagr-projection-over-the-next-five-years-technavio/>.





### Exhibit 4: The monthly subscription fee consumers are willing to pay for OTT services in the Asia-Pacific



Source: Brightcove Asia OTT Research Report 2019

Regular bill payments—or payment of subscription fees in this instance—can become a habit, which is when retention becomes easier.

Most popular OTT services operating in the region offer payment options which include the likes of Apple Pay, credit card, debit card, PayPal, ATM bank transfers, payment through convenience stores and scratch cards. LinePay is a fast-growing regional payment platform with a strong presence in

<sup>24</sup> Line. LINE Pay announces LINE Pay global alliance to become no. 1 payment service for inbound tourism. Available online at: <https://linecorp.com/th/pr/news/en/2018/2516>.

Japan, Taiwan, Thailand and Indonesia, boasting almost 165m active monthly users.<sup>24</sup>

Piracy and copyright laws are a challenge in several Asia-Pacific markets (as they are in emerging markets elsewhere). Although the OTT business model is evolving and users are growing familiar with the idea of paying for content, large chunks of the population remain highly price sensitive, and many would simply avoid paying any fees if they can watch

content for free, even if it is pirated. A case in point is Indonesia where the average user will typically compare the cost of an OTT service against that of a pirated DVD.

Another challenge in Asia is localisation. With hundreds of languages, various cultural tastes and vastly different regulatory restrictions on content, Mr Rogers is of the view that an OTT player needs to really cater to each individual market or niche to be successful and that’s a big challenge when securing content rights.

Another important trend with implications for the OTT media industry is the growing popularity of e-wallets or mobile wallets. This is not surprising given there are far more mobile phone accounts in the world than there are credit card accounts – an estimated 6.8bn active mobile phone accounts versus 2.2bn credit card accounts.<sup>25</sup> This statistic is even more skewed in developing economies where large segments of the population remain unbanked, but mobile penetration continues to increase year after year.

In this context, e-wallets or mobile wallets are a good payment fit, considering that OTT content providers are aggressively looking to drop anchor in emerging economies. In fact, by 2021, it is forecasted that e-wallets will be a preferred payment method across the globe, with 46% of global OTT users choosing this option, and only 15% opting for credit cards. In fact, Visa and Mastercard constitute only a fraction of online payments currently.<sup>26</sup>

In emerging economies, there is an enormous opportunity for all kinds of OTT media providers. But to fully tap this potential, OTT companies must put in place seamless customer acquisition processes. In this regard, says Mr Rogers, “digital payments, particularly mobile payments, are very important to the OTT media market.”

“The unbanked population is huge in emerging Asia. However, consumers are increasingly comfortable transacting via a hand-phone, for example, to top up their mobile service. Integrating into the merchant network of mobile payment providers as well as carrier billing is critical for OTT media in emerging Asia,” Mr Rogers adds.

<sup>25</sup> MPP Global Solutions. Think locally to grow globally: Understanding the payments landscape for international OTT roll-outs. Available online at: <https://www.mppglobal.com/news/blog/think-locally-to-grow-globally-understanding-the-payments-landscape-for-international-ott-roll-outs>.

<sup>26</sup> Ibid.



# PART 5: FORGING PARTNERSHIPS

The exponential demand for OTT over traditional TV has stemmed from high-value low-cost content offering non-linear viewing options. However, one pain point for OTT service providers is retaining their viewers since payment gateways are often an obstacle. In this regard, a collaborative effort with payment providers may ease this problem of losing customers during the payment process and one such viable option is direct carrier billing. In addition, smart contracts may be a novel approach to solving consumer woes. “Smart contracts are being used to automate business processes across many organisations and across industries,” according to Amit Ghosh, COO Asia-Pacific at R3, an enterprise blockchain software company. “This is creating the operational capabilities to support real-time, automated services for clients,” he adds.

## WHAT IS DIRECT CARRIER BILLING?

Direct carrier billing, pioneered by carriers in Japan, is the quickest payment option in the market today. The unique benefits of direct carrier billing include transparency and user-control in transactions through phone bills and flexible charging price points. Currently, in-app purchases are mostly facilitated by direct carrier billing, and it is gaining ground by providing an alternative to credit cards. The reason for direct carrier billing's increasing popularity is the higher prevalence of mobile phone accounts globally as opposed to credit card accounts – an estimated 6.8bn active mobile phone accounts worldwide against 2.15bn credit card accounts.<sup>27</sup>

Direct carrier billing also scores higher on the convenience front. Since OTT transactions are usually small amounts, a user is more likely to become a continued subscriber if there is no need to enter credit or debit card details – meaning a direct carrier

<sup>27</sup> Ryder Systems. Direct carrier billing (DCB) – Transforming the telco industry. Available online at: <https://www.rydersystems.com/direct-carrier-billing-dcb-transforming-the-telco-industry/>.

<sup>28</sup> Ibid.

<sup>29</sup> Ovum. Global OTT video bundling deals and service partnerships. Available online at: <https://ovum.informa.com/~media/informa-shop-window/tmt/files/ovum-global-ott.pdf>.

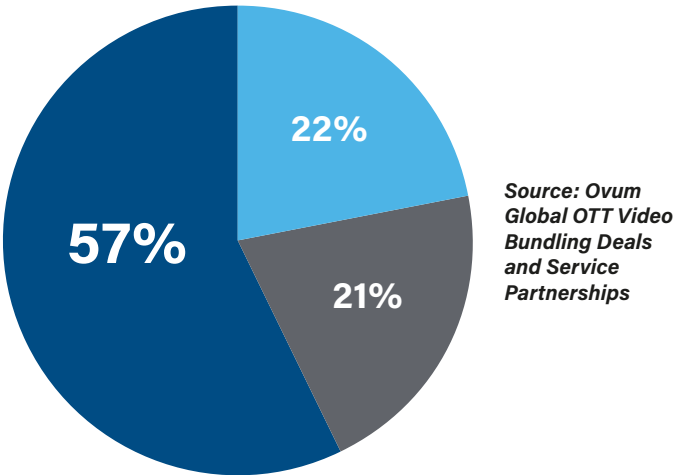
billing transaction is completed in mere seconds. Furthermore, numerous users are hesitant in providing their credit card number online and direct carrier billing, therefore, offers an added sense of security. In 2013, John Abrahams from Analysys Mason stated that direct carrier billing actually paved the way for communication service providers to tap into the mobile payments market.<sup>28</sup> In the current context, however, the mobile payments segment will likely be revolutionised if direct carrier billing incorporates blockchain technology on a wide scale.

## BUNDLING SOLUTIONS

DOCOMO Digital Payments helps telecommunication companies bundle digital services as part of limited-period offers to existing and new subscribers, thereby increasing viewership as well as assuring the loyalty of existing customers. Pre-configured turnkey bundle packages, for instance, Amazon's Music and Video streaming, are added to the consumer's mobile plan and rolled out seamlessly to the pre- and a post-paid subscriber base of Amazon. Bundling is effective in increasing customer retention with targeted offers for multiple segments, which helps companies grow their digital consumption.

Partnerships between OTT providers and telecommunications companies can vary. In the case of 59% of partnerships, there is no bundle, and the OTT service is used simply to promote an operator's broadband or TV service. A “hard bundle,” constituting 14%, is one where a premium (paid) OTT video service is included “free” in a telecom's broadband, or pay-TV subscription. Meanwhile, 26% of operators prefer to “soft bundle” a discounted complimentary subscription for a limited period, like an extended trial subscription.<sup>29</sup>

## Exhibit 5: Telco-OTT market share



Source: Ovum  
Global OTT Video  
Bundling Deals  
and Service  
Partnerships

■ Type 1 (no commercial relationship and no direct investment between Telco and OTT)

■ Type 2 (some level of cooperation with little to no investment between Telco and OTT)

■ Type 3 (close business relationship involving revenue share between Telco and OTT)

2019 is slated to be quite eventful with many top OTT content providers introducing new services. While Disney and Warner Media are both adding new SVOD services, Disney+ will launch with a very aggressive price point of US\$6.99. In what is being seen as a bold move, Disney is upping the ante on Netflix – it is launching a service in November 2019, which will allow four simultaneous screenings of content in 4K at a price-point lower than that of Netflix. Apple, meanwhile, is making a foray into the market with Apple TV Plus with equally competitive monthly subscriptions.<sup>30</sup> As major SVOD players compete for a limited amount of viewers, the landscape is bound to change, leading to price cutting, content strategy changes, promotional offers, business re-modelling, increased focus on international markets and even consolidation.

<sup>30</sup> Viaccess-Orca. What does a \$12.99 Disney bundle mean for the OTT industry? Available online at: <https://www.viaccess-orca.com/blog/disney-bundle-ott-industry>.

<sup>31</sup> DOCOMO Digital. Carrier billing. Available online at: <https://www.docomopayments.com/service-solutions/enabling-payments/carrier-billing/>.

<sup>32</sup> DOCOMO Digital. DOCOMO Digital + Vodafone Australia. Available online at: <https://www.docomopayments.com/resource/case-study/docomo-digital-vodafone-australia/>.

## DOCOMO PAYMENT SOLUTIONS

The growing appetite for OTT and the exponential growth of digital platforms and service providers have made this market a promising area. Payment solutions are naturally an ensuing step to a seamless relationship between the user and content provider. DOCOMO Digital's turnkey white-label “Enabler” platform provides quick and economical solutions to telecommunication companies to bring new app-stores and merchants onboard and needs no deployment onsite, adapting to the business' requirements with a unified billing Application Program Interface (API). Besides billing solutions, the platform provides services such as subscription lifecycle management and fraud detection. The latter is a key concern for most users, especially so because identity and financial information are shared. Besides, the platform also incorporates a bad debt simulator, bundle promotions and advanced analytics.<sup>31</sup>

One successful example of DOCOMO Digital's payments solutions is Vodafone Australia. DOCOMO Digital turnkey platform was commissioned by Vodafone Australia to standardise the merchant settlement process while also making it more efficient. Vodafone Australia's Product Innovation Manager, opined, “DOCOMO Digital have given us the ability to offer our customers the content and services they want, and an easy way to pay for them on their Vodafone bill.”

The platform is fully automated and the settlement report generated enables the user or the business to gauge transaction volume in real-time. Moreover, its “Self-care Portal” allowed for swift dispute resolution and also to quickly amend billing errors.<sup>32</sup>







## PART 6: THE FUTURE OF OTT

The OTT landscape is dynamic. It has proliferated and evolved at a breakneck pace on account of customer preferences, the entry of new players and the coming together of underlying technological and infrastructural fundamentals that are central to the industry.

OTT media has truly become mainstream. In 2018, online platforms such as Netflix, Amazon Prime, Facebook Watch and Sundance Now produced 33% of the original scripted shows, followed by broadcast with 30%, basic cable TV 29% and paid TV networks such as HBO 9%.<sup>35</sup> Increased competition has resulted in a contest to create high-quality original content.

According to Mr Rogers, we should expect to see “smaller content offerings more tailored to a specific group or interest, for example sports, or dedicated to a certain language. Offering more granular content will help OTT players provide a service that may be of lower price than the all-in-one package, but still deemed valuable to their target niche.”

He is also of the view that device-specific plans—such as Netflix’s significantly cheaper single device mobile-only plan in India—will become more common. In that will be opportunities for partnership between operators and OTT companies. “Operators already offer subsidies to subscribers who purchase mobile plans and a new smartphone, tying that in with an OTT video plan dedicated to that device could add a lot of value to mobile subscribers,” he says.

Innovative pricing strategies, content strategies and partnerships are becoming the order of the day for OTT companies to withstand the growing competition and to thrive in an increasingly saturated market. Price points are going to be vital in determining which OTT providers will sign-on more subscribers than others. But will that be sufficient? Almost certainly not. With the pricing of subscriptions likely to decrease, particularly after Disney+ enters the market with a subscription plan offer of US\$6.99 per month and with some very high-quality original content that only its own service will

be able to offer, competitors will be compelled to lower prices.

Herein lies the catch for the industry. OTT companies may sign up more subscribers, but they will likely do so at a lower price, as a result of which their revenues may not increase substantially even with a spike in the number of subscriptions. Netflix’s new offering in India, for example, will undoubtedly bring it more subscribers, but the impact these new subscriptions will have on the company’s bottom line is likely not going to be substantial. And while revenues may not necessarily increase as quickly as these companies would like it to, their costs are rising by the month owing to the amounts being invested in creating new shows and movies.

This brings into question the financial sustainability of OTT media companies that are out there in the market today. It is very likely that many companies—particularly the smaller players—will not be able to fight these streaming wars, which will, in effect become pricing wars, resulting in consolidation in the industry. Mr Mukherjee presents a positive take, saying that the entry of more players in the market “will build habit among people” and “will strongly build the market.” He believes that it will help develop consumer habits, and will also create space for niche players to survive.

The rapidly growing number of OTT players also begets the question: “Will we see a cable operator equivalent to aggregate platforms such as Netflix, Amazon Prime, Disney and the like?” In the US, Comcast has already launched its X1 device, which aggregates content from different sources. Could we see the same happen in other markets around the world?

The traditional cable operator was also an aggregator of sorts, and in that sense, are we moving back to the future? One in which nothing has really changed from the past, other than the medium of content delivery. And if so, what will this future mean for consumers and their “control” over what they want to watch?

### NEW PARTNERSHIPS

Investment in the OTT media segment is being driven by the desire to grow the subscription base across borders and to monetise this consumer base. A senior professional at a leading Asian VOD provider says that the key to growing the subscription base globally is providing content that can travel across geographies and overcome the constraints posed by language. One way to achieve this is content collaboration with local partners in different geographies to provide consumers with both original content in different languages as well as the same content but dubbed in various languages.

Another area that partnerships will centre on is blockchain technology, which is becoming increasingly popular in the telco industry – it is expected to grow at a CAGR of 84.4% between 2018 and 2023, particularly given the technology’s increasing compatibility with operational and business support systems.<sup>33</sup>

Mr Ghosh says that “OTT service providers see blockchain as a powerful tool to enable automated settlement with interoperability between different services, applications, regions and counterparties.” He says R3’s open source blockchain platform Corda is being used to develop new

economic models that would be suitable for OTT media, as companies are starting to transact in secure ecosystems and to leverage the tools that the platform has made available. Mr Ghosh adds that he sees blockchain playing a more significant role in the OTT media industry as payments develop and evolve. Blockchain enables OTT media service providers to transact in secure and highly efficient networks, “meaning they will be able to leverage these capabilities to provide better services for clients with personalisation, automation and a minimised need for costly reconciliations”

It should come as no surprise, therefore, if OTT media companies seek to partner with blockchain companies or acquire them, as Spotify did with Mediachain Labs in 2017, to develop better technology to connect artists and other rights holders with the music hosted by Spotify.<sup>34</sup>

Additionally, in an ecosystem that requires the sharing of confidential data including financial and personal identity information, blockchain guarantees secure information sharing among mobile network operators, non-telecom service providers and end users.

<sup>33</sup> CommsMEA. Why blockchain is the future of telecoms. Available online at: <https://www.commsmea.com/technology/19226-why-blockchain-is-the-future-of-telecoms>.

<sup>34</sup> Techcrunch. Spotify acquires blockchain startup Mediachain to solve music’s attribution problem. Available online at: <https://techcrunch.com/2017/04/26/spotify-acquires-blockchain-startup-mediachain-to-solve-musics-attribution-problem/>.

<sup>35</sup> Fortune Media. Streaming video services made more original shows than broadcast or cable in 2018, report says. Available online at: <https://fortune.com/2018/12/13/streaming-video-original-shows-spending-2018/>.



# CONCLUSION

OTT media is now mainstream, aided in no small measure by the decrease in data costs, increase in data speeds and the growth in mobile penetration.

However, it is entering a tricky phase of its growth and could become a victim of its own success if it does not adapt quickly enough, and implement content and payment strategies to acquire and retain customers.

Owing to the increased competition, we are starting to see the onset of pricing wars but subsidising costs to acquire new customers will not be sustainable. The victors in these streaming wars will be those with competitive moats around secured distribution pipes through the largest networks, preferably telecom carriers; and those who can address the challenge around making the user experience seamless by offering the convenience of “pay the way you want to while consuming on the go”.

Telecom operators in this space have a distinct advantage, for they can use their infrastructure and customer base as advantages to either offer their OTT partners’ media collections to consumers or to launch their own streaming platforms. They remain constrained with the need for capital-intensive technology required to enable bundling and payments delivery on the one hand and low share of the subscription revenue on the other.

We are starting to see some great innovation too, particularly in terms of making content more interactive—for example, where consumers can control alternative storylines, according to Mr Mukherjee. He is also of the view that advertising money is going to shift from traditional mediums to OTT space because companies will know exactly what the audience is watching, and therefore companies can curate and target their advertisements better. Such advertising can open up a substantial revenue opportunity for OTT companies.

The key is continued innovation, which can result in a diversification of revenues, as well as provide a sustainable hedge against intensifying competition. The least favourable outcome for the industry and for consumers is one in which industry leaders are reduced to merely competing on price, because that will impact the industry’s long-term viability.

The OTT media industry is arguably at an inflection point in many key economies around the world. Those companies that adapt to the changes shaping the market and forge innovative partnerships will continue to thrive, while those that don’t could simply fall by the wayside.







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## ABOUT US

DOCOMO Digital is the mobile commerce-related business of NTT DOCOMO, one of the world's leading telecom companies. We partner with over 200 carriers, 300 merchants and AppStores, and as many payment providers globally. Our Payments portfolio solves the challenges of scale, regulation, and complexity for telecom operators, merchants and payment service providers. Our "enabler" carrier billing platform allows mobile carriers to thrive in the growing mobile commerce ecosystem. With our platform, merchants get a single payment-agnostic gateway into new markets. Alternative Payment Methods like mobile wallets can offer access to international merchants, with our API and payments settlement facility.

For more information, please visit us at [www.docomodigital.com](http://www.docomodigital.com) or [www.docomopayments.com](http://www.docomopayments.com)

