

A Comparative Study on Over-The-Tops, Netflix & Amazon Prime Video: Based on the Success Factors of Innovation

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Abstract

We compare Over-the-Tops (OTTs), Netflix and Amazon Prime Video (APV) with five success factors of innovation. Firstly, Netflix offers better personalized service than APV, because APV has collaborative filtering algorithms to recommend safe bets, not the customers really want. Secondly, APV' user interface is undercooked to lock the members in, even if it has more content and better price offer than Netflix retaining its loyal customers despite the price increase. Thirdly, Netflix has simple subscription model with three tiering, but APV has complicated pricing model having annual and monthly, APV and Prime Video (AV) app, Amazon subscription and extra payment of Amazon Prime Channels (APCs). Fourthly, Amazon has fewer partnership than Netflix especially when it comes to local TV series. Instead, Amazon has live TV channel collaboration including sports content. Lastly, both have strategic and operational agility in their organization well.

Keywords: *Over-the-top, Transformative Innovation, Netflix, Amazon Prime Video*

1. Introduction

In media industry, Over-The-Tops (OTTs) deliver audio, video and other media over the Internet and bypass the operator's network. Since the OTTs don't require any business or technology affiliations with network operators for providing such services, they are known OTT applications (apps) [1]. Global media companies including new commers start to compete with a subscription-based video on demand (SVOD) service available to Internet users. Since November 2019 Apple+, Disney+, and Discovery+ have joined the established global providers like Netflix, Hulu and Amazon Prime Video (APV).

As more OTTs come into the marketplace, maintaining subscribers is as vital as enlisting new subscribers. Interesting is, especially SVOD churn rate has dropped from 46% in 3rd quarter 2019 to 38% in 3rd quarter 2020. The churn rate of Disney+ was at 13%, Apple TV+ at 20%. The established Netflix, APV and Hulu had churn rates significantly below the new commers and the industry average. Cord cutters cancelling their pay TV subscription opted for SVOD. It is assumed that long running video providers, Netflix and APV have built brand affinity and equity. They are less impacted by cancellations than newcomers [2]. This paper is interested in the future OTT industry landscape and aims to compare global top OTTs, Netflix and APV as of 2020.

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2. Literature Review and Theoretical background

2.1 Previous literature review

With SVOD, “Netflixification” of media firms encourages consumers to binge watch, to discover and explore new productions, and to share the experience online with all their friends online [3]. Through its recommendation system, Netflix users can find videos in every session [4]. Recommendation is web-based tools tailoring vendor’s offerings to consumers according to their preferences [5]. In terms of the infrastructure, Netflix and Hulu rely on the 3rd party. Netflix migrates its architecture to Amazon Web Services (AWSs), while Hulu hosts its services out of Akamai. Both employ the same set of content distribution networks (CDNs) in delivering video and assign the CDN to a video request without considering the network conditions. The optimization of the user-perceived video quality is needed and a measurement-based adaptive CDN selection strategy can be suggested. A multiple-CDN-based video delivery increases users’ available bandwidth [6].

Regarding TV network branding in SVOD, Amazon and Netflix are different. For Amazon, the brand identities of some TV networks act as valuable lures drawing customers into its APV membership program. For Netflix, linear TV networks are competitors whose brand identities reduce Netflix’s own brand equity. Ultimately, Amazon’s efforts to build a streaming service alongside TV network brand identities and Netflix’s efforts to build its own brand at the expense of such identities demonstrate the need to think about contemporary TV network branding as an ongoing negotiation between established and emerging practices [7].

Netflix’s unique strategic agility responds tactically to all issues, many of them being dealt in preventive and pro-active manner, faster than any other competitors. Netflix follows agile what continuously and marginally changing its business model [8]. Recommendation systems are of strategic importance for online businesses. The value of the personalized offerings can be seen in the fact that 80% of hours streamed by the customers of Netflix are determined by their recommendation algorithms. Since there are several kinds of recommendation engines with different performance metrics such as accuracy, novelty, diversity and trust, Netflix tries to search for the best algorithm. Netflix also tries to handle issues related to the increasing number of customers and especially how to handle enormous stream of big data [9]. There are some distinguishing competitive tools of Netflix, which are uncommon content strategies like the ability to program for tastes [10].

The payment structure of APV and Netflix are analyzed. Parameters for this comparative study are user preference, total annual revenue, number of subscribers, budget, and the amount of original content. In results, Netflix has better device compatibility, a wider volatile catalogue, better user experience and audio, but APV is cheaper and has more options for live TV and extras along with fresh content [11].

2.2 Theoretical background

The success factors of innovation derived from the analysis of 40 companies are personalization, closed loop, asset sharing, usage-based pricing, collaborative ecosystem, and agility. These features characterizing successful innovation are linked to some technology trends and market needs. Trends were identified by an analysis of regularly published industry reports from think tanks and consulting companies such as the McKinsey Global Institute, PwC, and the Economic Intelligence Unit. A personalized product or service is tailored to customers’ immediate and individual needs. Companies can leverage technology to achieve this at competitive prices. A closed loop is a nonlinear consumption process and replaces a linear consumption, reduces resource costs. Some innovations include the sharing of costly assets. Sharing reduces entry barriers to many industries. Some charge customers when they use the product or service, rather than requiring them to buy something outright. The customers benefit because they incur costs only as offerings generate value

and the company benefits because the number of customers is likely to grow. Information and communication technology (ICT) can enhance collaboration ecosystem, helps allocate business risks appropriately. Innovators use ICT to make decisions that better reflect market needs and allow real-time adaptation to change [12].

Six features are tied to long-term trends in technology and market demand. On the technical side, the development of sensors allows cheaper and broader data capture. Big data, artificial intelligence (AI) and machine learning enable companies to turn unstructured data into rules. Connected devices, Internet of Things (IoTs) and cloud computing permit decentralized and widespread data manipulation and analysis. Developments in manufacturing like 3-D printing create more possibilities for distributed and small-scale production. On the market side, although the steady progress of developing countries has led to a stable increase in demand, it is complicated by a greater diversity in customer preferences. The higher price and stricter regulation further increase the challenges for companies looking to gain market share. Six features represent potential solutions for linking market and technological trends. The data from connected devices is analyzed and turned into services like recommendations. Company with a higher number of six features were correlated with a higher chance of transformation and the transformative business models have more than three of the six features. In the research, key features are associated with 40 company models, twelve most innovative models are shown and among those, Amazon and Google are the representative media companies [12].

3. Research design

3.1 Research questions

The technology trends are same as the above theoretical background and market trends are rearranged into four categories to fit the OTT market: An increase in demand for OTT services, a more diversity of OTT customer preferences, a rise of Intellectual property (IP) costs, and a greater regulatory pressure to OTTs. With over a thousand companies competing, one thing makes Netflix and Amazon in common to get inspired from their hunger to innovate. Comparing their experiences and the way they've dived deep into the innovation can help media industry carve a niche in today's customer-driven media market. The following Figure 1 is research framework dealing with five keys to innovation success because asset sharing is not related to the media sector.

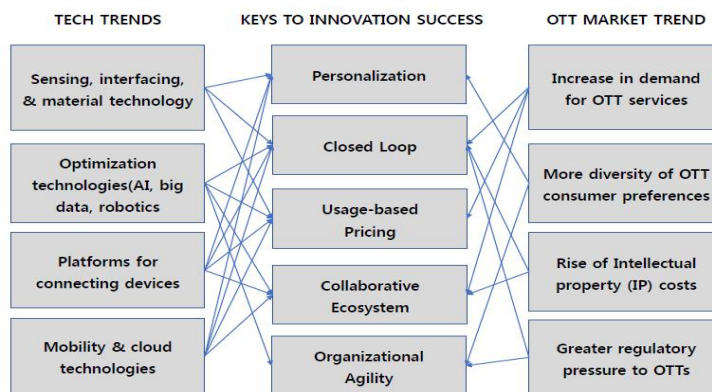


Figure 1. Research framework

The 'personalization' refers to better tailored service to customers' immediate and individual needs than the conventional service. The immediate needs require a recommendation system. The experiences of the series can be tailored to the interests of the customer. Each customer has an individual and unique experience as they must choose between different narratives. By choosing between different options and determining how the

story will unfold, the customers are in charge and can make the choices for themselves [13].

The ‘closed loop’ refers to an automatic control system in which an operation, process, or mechanism is regulated by feedback [14]. Generally, feedback can be negative or positive. Negative feedback loops stable, for example, in the case of a home thermostat, there is a wide range of acceptable temperatures which can cause the heating system to have a long response time. But the positive feedback loops simply repeat actions that have been effective in the past and its intention is to amplify a desired variable and naturally move the system away from its starting state to a desired state. When this grows exponentially without any checks or balances, a system can be unstable [15]. In media industry, a feedback loop is the part of a system in which the system’s output is used as input for future operations and it has four stages: The input is created, stored, analyzed and the insight gained from analysis is used to make decisions. Its primary purpose is to reduce resource cost. For example, in social media, brands can search their hashtags to reveal the photos, videos, posts and comments which their audience is seeing the branded content. Usually, videos, blogs, vlogs, and brand contributors are standard outreaches to measure the feedback loop. There are many ways to build a measurable feedback loop method like reading content, scrolling, looking at images, interacting, etc. [16].

The ‘usage-based’ means ‘using’ rather than buying the product or service. Subscription-based pricing offers customers access to a product or a service based on ‘usage.’ Subscription revenues grew five times faster than S&P 500 company revenues (18.2% vs 3.6%) between 2012-2019. Companies using subscription pricing have seen their client retention rate rise faster, compared to the industry average. The customers only pay for their using and the price depends on an outcome. Sellers are forced to continuously deliver value as the subscription can be suspended any time. For seller, large capital expenditures (CAPEXs) can be avoided and a predictable, renewable revenue streams are possible. They can lower operational costs by serving customers at scale through a platform and provide deeper insights into customer consumption patterns to steer add-on sales [17]. Alternative pricing, freemium model is the practice of offering a basic set of services for “free.” It results in majority of customers using the service offerings for free and a smaller proportion paying for additional services and has notable success on the Internet, where basic services is provided by the seller at almost zero variable cost. It allows a company to scale its customer base rapidly with little or no incremental cost for each additional customer gained, and charge for additional services. It includes the initial “free” service and can be applied to the online circumstances. Customers can also have access to a free trial version of the service that has few features and can scale to an expanded version by paying a price. It ensures that key functionality must be paid for, while still giving to the customers a free trial of the service. It is possible to allow a certain amount of usage per time period like one download per month or a month free trial without paying extra. Its advantages for companies are lower marketing cost and potential paying customer base [18].

The ‘collaboration ecosystem’ innovators in media sector have moved from device to content, because everything about the future is content, which is not IP, but innovation partnerships [19].

Lastly, the ‘organizational agility’ is the ability to renew itself, adapt, change quickly, and succeed in a rapidly changing, ambiguous, turbulent environment. The more flexible the company is and the faster it can adjust to inevitable industry changes, the better prepared it will be to win market share, improve organizational efficiency, and boost customer satisfaction and loyalty. There are three kinds of organizational agility: Strategic Agility is an ability to adapt competitive advantages via new innovations as quickly as possible. Operational Agility is an ability to adapt to new opportunities with the potential to improve operational efficiency. Portfolio Agility is an ability to move company resources to better the business [20, 21].

Based on the understanding of the five innovation success keys, research questions are presented as follows:

- 1) How does Netflix and APV's personalization work?
- 2) How does Netflix and APV's closed loop work?
- 3) How does Netflix and APV's usage-based pricing work?
- 4) How does Netflix and APV's collaboration ecosystem work?
- 5) How does Netflix and APV's organizational agility work?

3.2 Methodology

Before analysis, this paper searched for previous studies. By this, it is understood that Netflix has been studied mostly based on the five innovation success factors, personalization, closed loop, usage-based subscription pricing, collaboration ecosystem and agility. For evaluating competitiveness by comparing those five success factors of the two global OTTs, Netflix and APV, this paper examines publicly available industry documents related to these two companies, press releases, company blogs, and executive interviews news of both OTTs to understand the innovative activities of Netflix and APV. In addition, some case studies about Netflix and APV such as McKinsey and Harvard Business Review are studied as well.

4. Analysis and findings

4.1 Personalization

Netflix uses customers' viewing data, search history, rating data as well as time, date and type of used devices to predict what should be recommended to them. As of 2014, Netflix used 76,897 'tagging,' unique way to determine the genre types of movies and it recommends to each of its users to not only personalize their experience, but also makes them come back to Netflix for more personalized content [22]. For example, if a user likes watching horror movies, it recommends similar movies to keep the user hooked to its OTT platform. In addition, it uses 'time' factor to recommend show programs to its customers. It suggests shorter programs if the user logs in at night, instead of longer one. Displaying the right content at the right time can not only help increase customer engagement, but also enhance the user experience [23].

Amazon also recommends products to retail customers and about 35% of its sales comes from personalized recommendations and nearly 56% of them are likely to turn into repeat buyers as well [24]. 'One-Size-Does-Not-Fit-All' approach is based on the collaborative filtering, but it has inadvertently trained its algorithms to recommend safe bets such as a good quality of classic movie. However, the problem is that the recommended movies are not exactly what the customers really want to watch during their next night, even if good movies has high ratings with audiences and critics. It is the critical weakness of APV's algorithm [25]. Amazon tried to change the algorithm. APV's user interface displays six movie recommendations on the page associated with each title in its catalogue and Amazon AI evaluates its system on whether at least one of its top six recommendations for a given customer was in fact a movie that customer watched in the two-week period after the cutoff date. With this trial, it is expected that this autoencoder can outperform the bestseller list and the conventional collaborative filtering. Amazon found that using neural networks to generate movie recommendations worked much better when they sorted the input data chronologically and used it to predict future movie preferences over short period [26].

Concerning the interactivity, Netflix viewers can choose the next storyline in an episode of a TV show. This episode is 'Black Mirror: Bandersnatch'. During different moments, the viewers get to decide how the story will continue. This episode is the first interactive show for adult viewers and the first big success within this

format. ‘Black Mirror’ series is known for its critical commentary on technological developments and its impact on culture and society. In ‘Bandersnatch,’ the viewers guide the protagonist, Stefan through the episode by making a series of decisions. These decisions influence Stefan’s life, experiences and mental state and result in different endings. The viewers need to make differ from choosing between what Stefan must eat for breakfast (Frosted Flake or Cheerios) or whether he must jump off a balcony. Netflix guides the customers through different predefined choices creating the ‘illusion of free choice’. Customers feel, they are in control in the sense that they can literally determine what and how they experience the content. They engage in personalized experiences and receive more content tailored to their preferences [27]. This interactive experience offers new insights for Netflix which uses the data from the user participation to create an internal programmatic marketing infrastructure. Since the viewers need to make real-life decisions about their product preference like the choice between cereals, musical taste and engagement with human behavior, an individual personalized pattern can be discovered. How users handle certain decisions offer insight about what the viewers want out of a story and what they want to see the characters in a story do. Netflix can also associate products with specific content or demographics. For example, frosted flakes cereals are associated with 18 to 24 years old men. Effective branded content takes place. Netflix works together with different brands to test their product designs [28]. With the interactive experience and through active customer engagement, Netflix tries to uncover the hidden needs of the customers and it can use this potential of their customers in new service development [29]. The recommendation and interactive viewing comparisons are shown in Table 1.

Table 1. Summary of the personalization findings

Success factors of Innovation		Netflix	APV
Persona lization	Recommendation	- Ca. 80,000 ‘tagging’ of movie genre - Time of content: short & long	- ‘One-Size-Does-Not-Fit-All’ - AI based Autoencoder
	Interactive viewing	- ‘Black mirror Bandersnatch’	<i>None</i>

4.2 Closed loop

For user feedback loop, Netflix uses A/B Testing, a form of statistical hypothesis testing with two given samples A and B, the former being the control and the latter the variant. Netflix runs about 250 A/B tests every year and each of these tests presents two different versions of experiences to users to see how they react and respond to the suggested changes. Netflix chooses ca. 100,000 users to test its hypothesis, because no one has the same experience on its platform [30]. Whatever is shown on Netflix is driven by data collected from A/B tests. Based on this, landing cards are images video teasers visible to a user browsing through the Netflix’s category of recommendations and these have a greater impact on the customers’ minds. People are more likely to watch a video if they show teaser being attractive. A/B testing allows Netflix to understand the psychology of its customers, using the gathered data to personalize their experience in the most effective way possible.

Amazon’s video management relies on Customer Queue Service (CQS) built on Oracle system to support the initial launch of the e-commerce, later APV in 2007. CQS covers a wide range of functionality including playback, ownership, downloads, offers, order fulfillment, library management, season passes, subscriptions, rentals, and content discovery. The most frustrating part of APV’s feedback loop is searching. When users search for a title of movie, APV brings up a long list of shows and films. APV customers look very carefully to see if the content they’re clicking on is free or not, if it’s only available for rent or purchase. Amazon firstly lumps APV into its Amazon.com and people access video on the right side of the site. There are thumbnails for different shows and movies organized by genre. Separate Prime Video (PV) app is also offered as

subscription model and some movies are free of charge without subscribing. This app is compatible with Amazon Fire TV devices and also with other devices like Roku, Google TV, TiVo, Nvidia Shield, Blu-ray players, Game consoles (PlayStation, Xbox, Switch), Android and iOS devices [31].

Regarding content feedback loop, Netflix's feedback loop effort extends to branded content. Even if Netflix is commercial free, it works with brands. For example, in 2019, Netflix worked with the sandwich chain, Subway to start offering a Green Eggs and Ham Sub (spinach-dyed eggs, sliced ham, guacamole, cheese) tied to the new Netflix series 'Green Eggs and Ham' based on the Dr. Seuss book. The sandwich generated a lot of publicity for Netflix in the lifestyle press while also putting the Netflix name in front of the millions of people who buy a Subway sandwich each day. Companies want to go into business with Netflix. Netflix's average age of viewers is 31, part of a group highly sought by companies as younger people avoid broadcast and pay TV like cable TV and are known to hate advertisements. Some companies flirt with Netflix on social media. For example, in 2019, Netflix posted a tweet including a photo of nine cast members from one of its original shows 'Sense8,' as they appeared to be celebrating in Audi convertible, and then had a joking exchange about it with the Audi account [32]. The user and content feedback loop comparisons are shown in Table 2.

Table 2. Summary of the closed loop findings

Success factors of Innovation		Netflix	APV
Closed Loop	User feedback loop	- 250 A/B testing, 100,000 user/year	- CQS built on Oracle
	Content feedback loop	- Branded content marketing	<i>None</i>

4.3 Usage-based pricing

Netflix has an initiative with subscription model. Back in 2011, Netflix restructured its pricing and unbundled streaming plans from the DVD-by-mail business. Increasing the price of the combined offering from \$10 a month to \$16 a month and it rebranded its DVD-by-mail to 'Qwikster.' The consumer reaction was negative and Netflix lost ca. 800,000 subscribers in 3rd quarter of 2011 and during four months after this, its stock price dropped by 80%. Another trial was in October 2017. Netflix raised the price of its monthly standard plan from \$9.99 to \$10.99 and announced that existing customers is automatically migrated into new plans and it is successful. Pricing change of 2017 coincided with the launch of new original content like 'Stranger things' and 'The Crown.' With this success, in 2019, Netflix again raised the price for each of its plans: Basic is \$8.99, standard \$12.99, and premium \$15.99 per month. Basic plan includes one stream only with a 480p quality limit. Standard includes two simultaneous streams at 1080p, and premium includes four simultaneous streams at 4K with HDR and Dolby Atmos. Netflix does not offer any discounts for paying yearly.

With this approach, pricing power is an output that Netflix can measure based on how much value it delivers to its customers relative to other OTTs. Netflix kept basic plan not changed. Netflix relies more on loyal customers and invests heavily in expanding its content, releasing its own original titles, and gaining the rights to other popular movies and series. Thanks to the well-deserved cash infusion, Netflix can enhance viewer experience. Not only has Netflix significantly improved its value-price relationship, its smart and detailed price management ensures the customer loyalty. With one dollar increase for its entry price point, Netflix's service remains affordable for viewers and Netflix is careful to remain on the right side of this segment's price thresholds. Rather than applying the same level of increase across the whole portfolio, Netflix applies psychological pricing tactics to ensure all customer needs are covered. The difference among three plans is tied to video quality and the number of devices. Basic plan allows standard definition (SD) quality on one device. Standard plan enables high definition (HD) quality on two devices simultaneously and premium with 4K allows four devices simultaneously. Netflix avoids any broad brush moves and tackles the increase market-

by-market rather than charging in with a global policy. It takes more time and effort to do it this way and the markets reacts positively [33].

On the other hand, APV costs \$13 per month and yearly APV has a significant discount of \$36 off with \$120. With APV, subscribers watch any content at the quality of 4K resolution. Interesting is that Amazon firstly attract people to APV rather than standalone PV app. Annual fee of APV is \$119 and standalone PV’s monthly fee is \$8.99. There are three simultaneous streams per account, but the service limit to two simultaneous streams of the same title. PV app price is same as Netflix’s basic plan and APV membership with video, shipping, music and other additional services is cheaper than Netflix’s premium plan. No matter which subscription people end up with, their viewing experience with APV and standalone PV app is the same [31].

Concerning the freemium model, Netflix offers 30 days ‘free trial’ to new users who signed up for the service were able to test Netflix. But it starts to remove its free trial offer for the first time in Australia in March 2020 and the same happened in the UK, Canada and Mexico, etc. Instead of the free trial, new users creating a Netflix account get an upgrade to a more expensive plan for the first 30 days. The subscriber to basic plan is upgraded to standard for no extra cost and the subscriber of premium don’t get to enjoy any special promotions. Netflix is also for free as a part of promotions run by telecom companies in most countries. In Australia, Foxtel offers new customers Netflix’s free standard plan for a limited time when they sign up for selected bundles. However, Netflix start to get tired of freeloaders. All over the world, password sharing among friends remains a common occurrence and some users technically sign up with a different email every month for free trial [34].

APV comes with 30-day ‘free trial’ and it’s plenty of series in its archive are also available for rental or purchase. Rentals include 30 days to start watching the video and 48 hours to finish once started. For a lot of these series, some series give to rental users the first episode for free. This ‘First Episode Free’ is like a streaming version of the sample station at grocery store [31]. Extra payment to ‘Amazon Prime Channels (APCs)’ has also a freemium model which unlocks lots of new content like ‘Star Trek: Discovery.’ As of 2020, HBO is at \$14.99, Showtime at \$8.99, CINEMAX at \$9.99, and CBS All Access at \$9.99. Most of them come with a ‘7-day free trial’ for APV members, which is plenty of time to cram in all 63.5 hours of Game of Thrones. Another advantage with APCs is a ‘watch live’ option. Amazon has the live sports streaming business in the UK and the US. There are original sports content like ‘All or Nothing,’ which follows pro teams behind the scenes throughout their sports season. Sports channels like MLB.TV, PGA Tour Live, and NBA League Pass need additional money [35]. The subscription and freemium pricing comparisons are shown in Table 3.

Table 3. Summary of the usage-based pricing findings

Success factors of Innovation		Netflix	APV
Usage-based Pricing	Subscription pricing	- Monthly tiering plan - No yearly discount	- Monthly & discounted yearly plan - APV & standalone PV app options
	Freemium pricing	- Free trial with one month and telecom or pay TV partnership - Removing free trial in some regions	- 30 days free trial of APV, PV app and “First Episode Free” for rental - Additional paying for APCs

4.4 Collaboration ecosystem

Netflix has content partnership with local companies. For example, in 2019, CJ ENM, Korean media entertainment company, its subsidiary, Studio Dragon, and Netflix entered a strategic partnership for a multi-year content production and distribution agreement. As part of a three-year partnership beginning in 2020, Studio Dragon and its creators produced original series being available to Netflix’s global members. Netflix

also receives distribution rights to other selected Studio Dragon's TV series titles. This content collaboration deepens the relationship between Studio Dragon and Netflix streaming Korean drama like 'Stranger,' 'Mr. Sunshine,' 'Memories of Alhambra,' 'Romance is A Bonus Book,' and 'Arthdal Chronicles' [36].

APV and PV app have a larger library than Netflix. As of 2020, Amazon had 14,210 titles and Netflix had 3,803. While all these movies are not A-grade, there are plenty of high-quality titles for whole family [31]. APV builds linear catalog systems to provide best-in-class linear TV experience and pursues licensing for live and linear programming. APV offers live sports like 'NFL Thursday Night Football' and Twitch. APV started streaming 'Premier League' soccer on Twitch in June 2020. APV takes its live TV ambitions much further by offering kinds of 24/7 service [37]. The live channels are available after additional sign up of APCs like HBO.

Concerning the partnerships with pay TV, it was difficult before the OTT market has grown. For pay TV operators, the partnership was cord-cutting by providing OTTs with an additional revenue stream. Now, more than 300 million pay TV households worldwide have access to Netflix through their set-top-boxes (STBs), thanks to an increasing number of pay TVs' partnership with global OTTs. As of 2018, Netflix has struck over than 100 major partnership deals with pay TV operators. These give Netflix theoretical access to nearly half of all global pay TV subscribers outside China. In 2018, about three quarters of pay TV subscribers in Western Europe had access to Netflix through Netflix's partnership with pay TV operators [38]. As of 2019, Netflix has a substantial reach through pay TV households in North America with as many as 86 % of pay TV subscribers who can find Netflix on their pay TV operator's STBs. The increase in the number of pay TV partnerships with Netflix marks a distinct shift in the media industry. Netflix has been onboarded onto all the major pay TV operators in France which were extremely hostile to the US OTT's arrival. Netflix attracts many of the large pay TV operators in Central and South America, Asia Pacific (APAC), and Central and Eastern Europe (CEE). These markets excluding China play host to almost 400 million pay TV subscriptions, and Netflix has around 40 million subscribers in these territories [39].

While Amazon's APV bundled with its express parcel delivery has been found on Android-enabled TV sets, Apple TV STB, and its Fire TV, it hasn't really made the leap towards the pay TV. It means, Amazon is not very proactive to replace traditional TV and offers APCs attracting live TV channels from Discovery, Eurosport and Viacom. But Amazon also considers, next step of partnership is pay TV. British Telecom (BT)'s pay TV, BT TV announced in May 2018 that it includes APV as part of BT TV's new all-encompassing video strategy [40]. Sky, a pay TV operator owned by Comcast had a deal with Amazon to launch APV across Europe, while Sky's NOW TV and Sky Ticket apps comes to Fire TV devices. This enables UK customers to watch every live 'Premier League' soccer on Sky Sports, PV app and BT Sport without switching devices in 2020 and PV app is available on Sky Q in Britain, Ireland, Italy and Germany, as well as on NOW TV devices in Britain, Ireland and Italy [41]. In Jan. 2021 Amazon introduced the first APV mobile in India and it is a collaboration with pay TV operator, Bharti Airtel (Airtel), but it is a mobile-only plan providing SD quality to Airtel customers. Airtel customers on bundled pre-paid packs have a 30-day free trial by signing up to APV from Airtel Thanks app. After free trial, Airtel customers can access APV Mobile Edition through pre-paid recharges. Amazon targeted India firstly, because it is one of the fastest growing territories in the world with very high APV engagement rates. Over the last 4 years, APV has been India's most loved premium OTT with viewership coming from over 4,300 cities. This initiative for Amazon is designed not only to give customers more choice of plans, but also easy access to subscribe to APV along with mobile data plans of Airtel [42]. The content and pay TV collaboration comparisons are shown in Table 4.

Table 4. Summary of the collaboration ecosystem findings

Success factors of Innovation		Netflix	APV
Collaboration Ecosystem	Content collaboration	- Local content collaborations (i.e. Korean TV series production)	- Live and Linear TV channel collaborations
	Pay TV collaboration	- Over 100 partnerships from 2013	- Partnerships from 2018

4.5 Organizational Agility

Netflix's strategic agility in which employees feel that their judgement isn't trusted can be a significant barrier preventing their company from successfully implementing new strategies is from CEO, Hastings. He describes Netflix as anti-Apple. Apple compartmentalizes products, while Netflix grants its people the freedom and trust. All information is shared across the organization, so all employees are involved in each aspect of the company's strategy. He proposed a 'context, not control' principle. Context is something to embrace and includes strategy, objectives, clearly defined roles, knowledge of the stakes and transparency around decision-making. But control means top-down decision-making, management approval, and valuing planning over results [43]. A survey describes how a group of CEOs in firms averaging \$13 billion in revenues spend their time. The worlds of Jeff Bezos and these CEOs are as different in seven ways. By 'obsessing over customers', Bezos shifted its company into new businesses from retailing books & everything, 'Amazon Fulfilment' for sellers, cloud services, devices for books, music to video, movie making, consumer electronics and advertising and structured Amazon culture around 'multiple paths to yes.' As chief slowdown officer for innovation which has originality, scale, Silicon Valley-worthy ROI, he has shown a willingness to take risks, to acquire new skills and to learn from failure like hardware and turns newly created capabilities into new businesses. Bezos is the quintessential entrepreneur with a founder's mentality and a preoccupation with strategic agility [44, 45].

To be truly agile in organization level, companies need to have important building blocks of the agility puzzle. Operational agility is an ability to adapt to new opportunities with the potential to improve operational efficiency. Netflix's values include the expectation that employees will keep Netflix nimble by minimizing complexity and finding time to simplify. By trusting employees, Netflix extends the strategic agility to operational agility. Organizations with agile capabilities are more likely to succeed in implementing their strategic initiatives like Netflix [43]. Patty McCord, former chief talent officer at Netflix, in her book described Netflix's organizational culture as a cultural anthropologist: The first part of it is 'behaviors,' not 'values,' because values are aspirational. The next part is high performance. When the company has the right people, focus and deadlines, its employees operate independently. It's about employees who are passionate about their work that they need to get done. Netflix values 'freedom with responsibility' [46].

Amazon's strategic agility connects everyone and everything, everywhere, all the time, delivering instant, intimate, frictionless value on a large scale, and it creates operational agility where Amazon employees, insights, and money interact quickly, easily, and cheaply [47]. Rossman shows how Amazon has been one of the most agile firms. He ran enterprise services business providing e-commerce infrastructure at Amazon. The customer obsession is not only for top management, but also for sales and marketing. It's everyone's job to have empathy and passion for customers. If the work is done to the extent possible in small, integrated autonomous multidisciplinary teams, it is known as 'two-pizza teams,' which means that employees could in principle feed with two pizzas. Its goal is to lower the communications overhead in organizations including the number of meetings, coordination points, planning, testing, or releases. This team owns its own data and no other team may access the data except through APIs which are the interfaces with enforced rules allowing other teams to integrate and use the team's capability. Amazon uses its own home-grown vocabulary, 'two-pizza teams' rather than generic 'agile' terminology. Amazon implements its strategic agility with operational

agility with ‘two-pizza teams’ [48]. The strategic and operational agility comparisons are shown in Table 5.

Table 5. Summary of the organizational agility findings

Success factors of Innovation		Netflix	APV
Organizational Agility	Strategic agility	- ‘Context, not control’ rule	- ‘Multiple pass to yes’
	Operational agility	- ‘Freedom with responsibility’	- ‘Two pizza teams’

5. Conclusion

This paper compares two global OTTs, Netflix and Amazon’s APV with five keys to innovation success. Even if APV and standalone PV app’s content and prices are relatively good, its user interface has less value than Netflix’s one. Amazon’s APV is an IKEA version of OTT services. It is cheap and has tons of content to choose, but the layout is confusing to navigate. On the other hand, Netflix with loyal customers experiences experienced with several trials and errors that small changes in pricing can add up to improvement in a company’s profitability. Amazon offers more libraries than Netflix, but many of them are B-grade oldies or straight-to-video fare people never want to watch. Netflix offers fewer films, but the ones it offers are usually of a higher caliber. When it comes to TV series, Netflix is the winner because its original shows are the most popular programs of the past decade along with the content collaboration with local production companies. Netflix’s three tiers of subscription don’t have any additional features. APV subscription, on the other hand, comes with so many additional benefits like free shipping for e-commerce products, free Amazon Prime Music, unlimited photo storage, Kindle library, and discounts at Whole Foods supermarkets which Amazon owns. However, none of those have anything to do with OTT movies or TV shows.

When focusing on OTT competitiveness within the research framework, the five success factors of Netflix are better than Amazon’s APV in terms of incredible selection of content Netflix offers as well as the content collaboration. In conclusion, with different technological affordances of user interface, revenue models of subscription, and organizational cultures, OTT services have altered the competitive environments.

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