

# CASE STUDY ON HOW OTT PLATFORMS USE BI

By

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## Abstract

The COVID - 19 Pandemic caused an abrupt lockdown over the planet. The globe was facing a significant issue during that time. This problem affects the entertainment field also, there was a significant in the habit of content-viewing of movies, series, and other programs. The usage of OTT platforms Increased and the trend was changing day by day. This was a time when their platforms used BI to increase viewership by collecting details like what users watch, when they watch it, where they watch it, what devices they use, how they rate it when they search for something, when they pause or end their viewing, etc. According to the Statista Global Consumer Survey in India amazon, prime, and Disney+ were mainly used, this was due to the budget ratio provided by these companies. In this paper, We discuss different OTT platforms, and users with information about each platform to help them choose which services to subscribe to. Analyze the use of platforms to offer users precise movie recommendations in order to explore various OTT platform datasets. The system will look for stuff the user is interested in and display the results appropriately to personalize a platform for the user.

## 1. INTRODUCTION

Business intelligence (BI) refers to the methods and tools that organizations employ to manage and analyze their business information. Business intelligence systems frequently conduct reporting, analytics, dashboard building, complicated event processing, data mining, process mining, business performance management, benchmarking, text mining, predictive analytics, and prescriptive analytics. Businesses may utilize business information to inform a variety of choices, from tactical to strategic. Product positioning or price are examples of fundamental operational decisions.

Priorities, goals, and directions are the three main components of strategic business choices.

In every scenario, BI is most successful when it combines data from sources within the organization, such as financial and operations data, with data collected from the market in which a company works (external data) (internal data). It is possible for internal and external data to be merged to generate a full picture that, in turn, produces an "intelligence" that is independent of any particular set of facts. In order to find, develop, and otherwise create new strategic business possibilities, BI technologies can manage huge volumes of organized and occasionally unstructured data. They seek to make these large data easily interpretable. Businesses may gain a competitive market edge, long-term stability, and the ability to make strategic decisions by recognizing new possibilities and putting an efficient plan based on insights into practice.

Software is only one component of business intelligence. The utilization of data in routine business operations is a comprehensive endeavor. The seven advantages of BI are translated into practical results that demonstrate BI in action.

- Faster analysis, intuitive dashboards
- Increased organizational efficiency
- Data-driven business decisions
- Improved customer experience
- Improved employee satisfaction
- Trusted and governed data
- Increased competitive advantage

The use of OTT platforms to deliver video content is becoming more widespread. But for these platforms to be effective, the right kind of business intelligence must be used. Due to the complex and dynamic nature of the streaming industry, OTT platforms have unique challenges when analyzing data and making decisions. The right BI solution may help you get past these obstacles by giving you data on customer

behavior, marketing trends, competitive assessments, etc.

For OTT platforms to succeed, many sorts of business analytics must be used. Data collection on customer behavior, viewing patterns, and preferences are all part of this process. OTT platforms may choose a better content selection, marketing tactics, and business operations with the help of this useful knowledge.

Social Media Sentiment Analysis, Recommendation Engines, Demographic Data, Data discovery and interrogation, Visualization, Predictive Analytics, Data Warehousing, and Descriptive Analytics are the main tools used. This application uses graphs, charts, and maps to help businesses better comprehend their data. Reporting and analytics: These resources let companies monitor important performance metrics and look at long-term trends. By comprehending their target audiences, OTT platforms may adjust the content they supply to satisfy the unique requirements and preferences of their users. In order to modify their tactics, businesses also need to be informed of industry trends. Finally, monitoring performance indicators is necessary to assess if the platform is succeeding in achieving its objectives.

There are different ott platforms available, from that some of them are only famous around the world like Netflix, Amazon, Disney +, youtube, etc. Each platform uses its own technique to increase its viewership and its profit. They gather a lot of user data, including what users watch, when they watch it, where they watch it, what devices they use, how they rate it when they search for something, when they pause or end their viewing, etc. The over-the-top(ott) market in Asia pacific will be \$42bn in revenue from 351mn subscribers.

## 2. METHODOLOGIES

System development approaches have made tremendous strides in recent years. A range of novel approaches, including prototyping, Object-Oriented Analysis and Design Methodology (OOADM), and Rapid Application Development (RAD), among others, have supplemented and frequently replaced structured systems analysis and design approaches. For example, Fourth Generation languages and CASE tools, which allowed for quick application

development, have always been represented in system development approaches and methods. Over time, the organizational emphasis has likewise changed from Transaction systems to decision support and competitive intelligence. The frequent and costly instances of implementation problems serve as a strong reminder of the requirement for suitable methodological approaches to BI system installation. The particular methodological requirements of BI systems are examined in this chapter, and they are compared to preceding transactional and reporting systems.

The OTT market was valued at 85.16 billion dollars in 2019 and is anticipated to grow to 194.20 billion dollars by 2025. Many nations adopted social segregation policies as part of COVID-19, forcing cinemas to restrict attendance or even close their doors and encouraging people to stay in, which sped up the rise in OTT platform subscriptions. So, we decided that now would be a good moment to evaluate several OTT platforms and offer helpful information for those who are having trouble deciding which platform is ideal for them.

It is obvious that more clients are struggling to choose which platform would be best for their needs as these platforms find new ways to differentiate themselves from rivals by offering original content. Additionally, the majority of the existing recommendation systems concentrate on recommending the contents rather than the platforms that host and make those contents available. Our study seeks to provide recommendations for selecting the best OTT platform that suits an individual's preferences in order to reduce the difficulty of making a decision.

## Datasets

For this study, the content listings for Netflix, Amazon Prime and Disney+ were primarily used in two dataset groupings. It is obvious that more clients are struggling to choose which platform would be best for their needs as these platforms find new ways to differentiate themselves from rivals by offering original content. Additionally, the majority of the existing recommendation systems concentrate on recommending the contents rather than the platforms that host and make those contents available. Our study seeks to provide recommendations for selecting the best OTT platform that suits an individual's

preferences in order to reduce the difficulty of making a decision.

**Netflix** - We took into account 12 columns in this dataset that are linked to the show, including show id, type, duration, listed in(Reality shows), and description of the show.

**Amazon Prime** - To give our users access to all shows and information linked to them, we have included 8 columns in our Amazon dataset. These columns are Name of Show, Year of Release, Number of Seasons, Language, Genre, IMDB Rating, Age of Viewers, and the Average Vote.

For streaming, this website requires a subscription. The user can choose a show of his choosing, and he can view all the seasons and episodes of that program that have been retrieved from our dataset.

**Disney+** -The Disney+ dataset includes information on movies and TV shows that are unrelated to our research. Only the IMDB id, title, type, released at, and rating columns were used for our purposes, out of 19 total columns including plot, type, director, and genre.

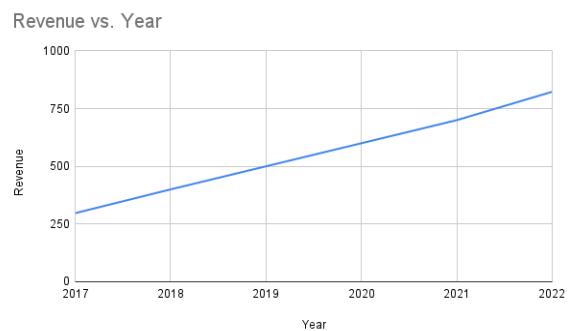
## Data Preprocessing And Exploratory Analysis

The process of eliminating data before using it to improve performance is known as data preparation. We have preprocessed various movie datasets that we have scraped from Amazon, including movie metadata. Data cleaning is a method for removing or changing erroneous data so that it can be reviewed. This information is not required for data analysis as it could slow down the process or reveal erroneous outcomes. In order to maximize the level of detail in the data gathering without destroying anything, data cleaning is also performed.

Disney and its subsidiaries, including Pixar, Marvel, Star Wars, and National Geographic, have material on Disney+Disney+ in addition to HBO (which features shows like Game of Thrones, Chernobyl, The Wire, and many others), 20th Century Fox, and Disney. You can also watch live sports online (including the English Premier League). The monthly or annual

subscription plan starts at Rs 299, and only one device may watch content at a time.

The Amazon of streaming is Netflix.Compared to the other two streaming services, it offers the most content. The Ultra HD package, which allows streaming and downloads on up to 4 devices, is priced at Rs 799 and starts at Rs 199 for a single mobile device. (The costs listed are for the recurring monthly subscription of netflix).



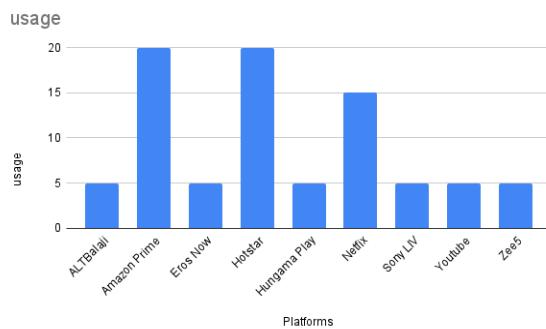
In India, the penetration of smartphones is predicted to reach 99% by 2022, while OTT platforms are predicted to expand at a CAGR of 22% by that year, reaching approximately INR 6k crore. By the end of 2020, Netflix is anticipated to have more than 25 million subscribers, compared to Amazon Prime's 10 million subscribers.

Less content from Disney Plus is more widely used. You will therefore really, really enjoy the service if you enjoy the Disney movies and television episodes that are available. If you don't care much for Disney, it's probably not worth it. Although the programme is advertised as "family-friendly," kids are its main focus. Additionally, Disney Plus features much more movies than TV shows.

Disney Plus is not at all comparable to Netflix or Amazon Prime. They both provide far more selections than Disney Plus and both feature both licensed and creative content. Although both may use refinement, we believe Netflix's user interface is superior. We advise comparing the offerings on the two services to determine which has the most.

This is a result of data from Statista Global consumer survey and Airnow PLC.Our analysis demonstrates

that Disney has already accomplished a number of tasks in the limited time provided very successfully, in some cases even outperforming Amazon and Apple. The browser-based version of Amazon's streaming service, however, has not been optimized. Additionally, there are websites and apps like Zee5, Eros Now, Hungama Play, ALTBalaji, and Sony LIV, some of which are services offered by television networks like Sony, Colors, Star India, etc. These sites primarily broadcast content from their channels, allowing users to catch up on missed live shows by subscribing to these services.



## Analysis based on the User interface

You may discover a sizable audience for OTT platforms if you explore around. OTT platforms are now more necessary than ever, especially at this time of epidemics when people are trying to spend as much time indoors as they can. Even though there are several OTT services, Amazon, Netflix, and Disney+ have maintained the top three.

Without a doubt, each of the three OTT behemoths provides a diverse collection of TV series and movies to satisfy every taste. The fact that these three have been at the top of their game is due to a number of factors as well. Not just the information, but also how it is presented, is important. For its audience to quickly access the series and movies to watch, Amazon, Netflix, and Disney+ have maintained a solid User Interface (UI).

All three of these platforms simultaneously give their users a unique UI experience. We must first understand what UI is before we can investigate the user interfaces like Amazon, Netflix, and Disney+.

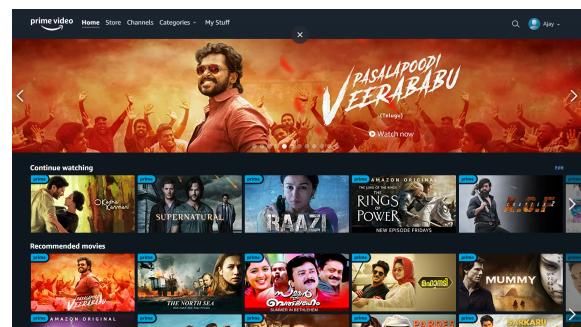
A UI designer's objective while developing the perfect OTT platform is to display the content in a

way that motivates consumers to watch it all. The UI competition can be a bit difficult with Amazon, Netflix, and Disney+ being three industry heavyweights in the same space. However, each has advantages and disadvantages for the users.

### Amazon Prime Video

So far, Amazon Prime Video has had great success. It directly rivals other OTT services like Netflix and Disney+. Amazon has seen a significant increase in users over the past several years thanks to the addition of all the prime advantages and the availability of its customers' content.

It includes both some of the other popular hit series, such as The Farewell, The Handmaiden, and many more, in addition to some of the original successful series, such as The Marvelous Mrs. Maisel, The Boys, etc. But customers utilize Amazon Prime Video for more reasons than only the advantages and the content. A large portion of it also originates from the user interface that was created to make the process and the users' experience easier. People have also expressed dissatisfaction with a few aspects of how the website functions.



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The UI controls for Amazon Prime Video are either in the center or on the edges of the screen. Play/Pause and forward/backward by 10 seconds are clearly visible in the center. The remainder is dispersed

among the four corners. This merely serves to demonstrate that they have placed the most important symbols in the center of the screen, saving the user from having to constantly search for them.

The X-ray option, which can be found in the top-left corner of Prime Video, displays the actors and the music that is playing in the scene. Additionally, after you finish viewing a movie or a television show, a small video box appears on the bottom-right corner of your screen. It displays a suggestion for the following film or television show that you should binge watch. The user is unsure of what to anticipate because the font is too tiny to read.

In addition, Amazon Prime Video's aesthetics are somewhat restrained. The website has a warm blue color scheme that gives it a somber appearance overall. The colors on the posters for the other films/series aren't particularly improved by it.

## Netflix

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When it comes to user interface, Netflix, however, differs slightly from Amazon Prime Video. They offer an enormous collection of programmes and films available for binge-watching. There are clear genre distinctions among all of the movies and television programmes. Their color palette is one feature that many consumers have praised greatly. The color scheme for the website is black and red. Additionally, it improves the website's advertising videos.

The play/pause and forward/backward buttons on Netflix's user interface are identical to those on Amazon Prime. However, they are situated toward the bottom of the video. Netflix also gives you the option to flip between seasons using the bottom panel. Within a few seconds of finishing one episode,

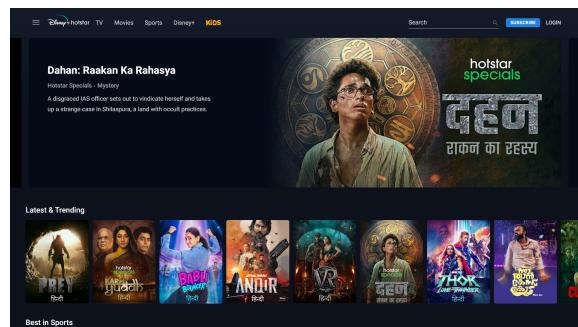
the next one begins to play. Additionally, the post-credits hardly occupy the screen when the series is completed. As the user can plainly see the recommended television show or film.

You may now regulate the pace of your scenes with the most recent version. The stream of the video can be sped up or slowed down as desired. You can provide feedback if the video isn't working and in that instance, too.

## Disney+

Hotstar entered the OTT market much later than Amazon Prime Video (2006) and Netflix (in 2011). (1997). However, the company has been able to build a solid name for itself internationally and is now in a competitive position with the other OTT juggernauts.

Compared to Netflix and Amazon, Hotstar (now Disney+ Hotstar) has maintained a basic user interface. There are five categories, primarily Home, Disney+, Sports, News, and TV. The Home area displays new series that are available to you as well as additional suggestions according to your preferences. All things Disney-related are found in the Disney+ tab. The sports channel broadcasts every sporting event, including the IPL. You may see different news stations using the news tab. The TV tab, which is the final one, displays the TV programs that are offered on the site. The Hotstar mobile app also makes use of a similar user interface.



The dark blue color design increases the website's suggestion of shows and series. The user interface panel is located underneath the streaming video. While using the full-screen option, you can switch to the following episode. You must disable the full-screen function in order to advance a few episodes, though. Then, to view the episodes, you must scroll down. But other than that, the Hotstar UI is really straightforward and simple to use.

We observed a shift in consumer behavior toward OTT channels, which provided many little films fresh life since theaters had already closed. As a result, OTT platform subscriptions increased and users awaited new material on the platform with anticipation.

#### 4. CONCLUSION

We learned about BI being used in each OTT platform and how it is applied. The usage also depends on several factors which are UI, Content, marketing etc.

We discovered that Netflix has an excessive amount of TV-MA films compared to other platforms based on age analytics. Varied films with different maturity ratings were roughly evenly distributed on Amazon Prime. Only movies with a TV-PG or TV-G rating were available on Disney+. Depending on what age range of movies people want to see more, the outcome offers which platforms to subscribe to. We noticed that Netflix and Amazon Prime have comparable distribution based on category statistics. They both had the greatest drama, humor, and action. Netflix, however, had the most range of programming across all categories. Disney+ was the most strong in family, adventure, and animation films while having far less material than the other two services. It does appear that Netflix has a superior user experience than the other services after comprehending the user interfaces for Amazon Prime Video, Netflix, and Hotstar. According to Netflix's user interface, this makes the content stand out more than the background. Because other elements like navigation and the UI panel are more comfortable than the rest, it further brings out its colors and allows the user to focus on the promotional video rather than the backdrop.

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#### Futurescope

To start, it is anticipated that by 2025, the global OTT market will be valued more than \$194 billion. Although OTT platforms have a promising future, service providers should be prepared for fierce competition. This is due to the fact that more content producers and publishers will experiment with the release of branded OTT applications in the upcoming

years. The secret to gaining and keeping subscribers is to continually offer them top-notch unique content. Additionally, in the future, only OTT platforms that provide a seamless and personalized user experience will be accepted.

This highlights the necessity of adopting artificial intelligence and machine learning to offer users tailored content recommendations. In order to create amazing-looking and user-friendly OTT apps, you should also think about employing OTT SaaS solutions, like those offered by MAZ Systems.

Along with producing local content, you'll also need to come up with low-cost membership plans targeted at underprivileged demographics.

This is the ideal time to start your OTT platform, whether you're an established broadcaster or a budding content creator. As more individuals switch from regular cable TV to on-demand programming, the future

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