

YouTube and the Creator Economy in India: A Data-Driven Analysis

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Abstract

The creator economy refers to a thriving ecosystem of content creators, influencers, and digital entrepreneurs who leverage social media platforms to build their brands and engage with their audiences. The study examines YouTube's contribution to India's creator economy using curated datasets from 2020 to 2023. Using time series analysis and regression modelling, the study investigates platform usage patterns, preferences for various categories of videos watched and audience engagement factors like views, likes, dislikes, etc were investigated. It was found that "Arts and entertainment" videos are the most-watched category of videos. The popularity of short videos was highlighted, signaling a shift towards small-duration content formats. It was also observed that homegrown channels are gaining popularity, which reflects the democratization of content creation. A steady increase in the popularity of YouTube and its revenue-generating potential through content creation, advertising, brand collaboration was noticed. Further, expanding technology and creative innovation have fueled the consumption of content on YouTube. The study indicates a significant role of YouTube in India's creator economy by generating sustainable income.

Keywords: Creator Economy, YouTube, Revenue Generation, Indian Economy

1. Introduction

Recently, social media has changed the way people connect, share information, and consume online content. Social media platforms have become powerful tools for communication and content dissemination, with the rise of the internet and mobile technology. The creator economy has emerged as a new economic phenomenon (Steenkamp, 2017). The creator economy refers to an emerging ecosystem of content creators, influencers, and entrepreneurs who use social media platforms to create their brands and engage with their audiences (Tafesse and Dayan, 2023). The creator economy has grown globally,

with platforms like YouTube, Instagram, TikTok, etc. These platforms help the creators to showcase their skills and talents. In the Indian context, the creator economy has grown exponentially in recent years. The widespread availability of smartphones and affordable internet access has led to the rise of digital content consumption and an increase in demand for relatable and engaging content among the Indian youth.

It is essential to examine the relationship between the creator economy and the revenue generated by social media platforms. The creator economy is a significant contributor to the economy. In 2020, the creator economy was estimated to be worth \$104 billion in the United States alone. This is expected to grow to \$200 billion by 2025. In 2021, the Indian creator economy was valued at \$30-35 billion, and it is expected to grow to \$100 billion by 2025 (Kanwar, 2021). The creator economy is creating new jobs. In 2020, there were an estimated 50 million creator economy workers in the United States. This is expected to grow to 86 million by 2025 (Geysler, 2024). The Creator Economy is estimated to be of economic value around \$104 billion in 2021, according to revenues invested in Creator Economy startups, according to a study published in *Creator Earnings: Benchmark Report 2021*.

Since its 2008 launch in India, YouTube has transformed from a platform for sharing videos to one that generates income. YouTube's recommendation algorithm plays an important role in the discovery of relevant content and drives approximately 70% of watch time (Covington et al., 2016). Through its Partner Program, creators can make money through merchandise integration, channel memberships, and advertising.

The influence of various social media platforms have been studied in previous research, but research on the contribution of YouTube in the creator economy is limited. By giving creators a platform to make money through content creation, endorsements, and sponsorships, YouTube helps India's creator economy flourish by taking advantage of the country's sizable population and rising internet usage (Satya and Tamizharasi, 2025).

Another research highlighted the significant role of revenue building within the creator economy. The findings suggest that creators are utilizing multiple platforms to expand their income sources. But the role of YouTube in revenue generation was not addressed (Rieder et al. 2023). Mehra (2019) demonstrated that strategic content partnerships are essential for the growth in the creator economy. It was highlighted that creators, brands, and platforms can collaborate and enhance content delivery according to consumer satisfaction. Girish Hiranandani and Manish Wadhvani (2023) highlighted that platforms like YouTube have enabled the Indian youth to become content creators and provided opportunities for self-expression and income generation. This change has expanded the horizon of content creation and the creator economy. The findings highlight that content creation has evolved from a hobby to a viable career option, and there is an increase in Indian youth who are taking up content creation instead of traditional jobs.

The creator economy has experienced exponential growth, with social media platforms like YouTube, Instagram, TikTok, and Patreon. Bajpai (2025) highlighted that these platforms like YouTube, significantly contributes to employment and economic activity in India. These platforms have helped in revenue generation and strengthened the digital economy. It suggests policymakers to formulate tax regulations so as to support digital businesses. Chitranka K. and M. R. Jhansi Rani (2024) focused on the role of YouTube in Indian economy in shaping brand identity, consumer engagement, and marketing strategies. They emphasize that story telling techniques can increase consumer engagement and loyalty.

While existing research establishes the creator economy's growth and YouTube's global significance, some research gaps have not been addressed. Limited analysis has been done on correlation between content type and user engagement, viewership metrics and monetization potential and how homegrown

Indian content creators are impacting the creator economy. The current research focuses on analyzing the usage patterns and contributions of social media platforms to the creator economy. In addition, the increasing impact of YouTube on the Indian economy has been examined. Curated datasets have been employed to quantify the economic significance of YouTube.

2. Material and Methodology

The study performs quantitative analysis on secondary datasets about YouTube's usage patterns, popular video categories, and audience preferences (likes, dislikes, views, etc).

Datasets

The following datasets have been curated from different sources for the duration 2020-2023 and used for the study.

The *Social Media Platform Usage in India (D1)* dataset (<https://gs.statcounter.com>) tracks monthly social media platform usage percentages among Indian internet users over 24 months. Each cell represents the percentage of users visiting each platform (Facebook, Instagram, YouTube, Tumblr, Reddit, Pinterest, Twitter, LinkedIn, VKontakte, Hacker News) in a given month.

The *YouTube Video Categories Dataset (D2)* dataset (<https://www.kaggle.com/datasnaek/youtube-new>) is a compilation of 3812 videos, with 9 columns, each describing one of the following categories - Index, Video View Count, Knowledge Graph ID, Name, Wiki URL, Category and a short description of the video itself. The 'Category' has been split into 25 possible results as listed below: Games, Autos & Vehicles, Arts & Entertainment, Food & Drink, Sports, Pets & Animals, Internet & Telecom, Computers & Electronics, Shopping, Beauty & Fitness, Hobbies & Leisure, Business & Industrial, Home & Garden, Travel, Science, News, Law & Government, Real Estate, Jobs & Education, Reference, (Unknown), Books & Literature, People & Society, Health, Finance.

The *General YouTube Analysis Dataset (D3)* dataset of "Internet usage in India - statistics & facts" (<https://www.kaggle.com/datasets/rsrishav/youtube-trending-video-datas>), is a compilation of all YouTube videos that have trended in India from August 2020 to August 2023. With over 63,000 data points, each video is described within this dataset with the help of 20 fields: Serial Number, Video ID, Title, Publishing Time, ChannelID, Channel Title, Category ID, trending date, tags, views, likes, dislikes, comments count, thumbnail link, comments disabled, ratings disabled, description.

Data Preprocessing

The preprocessing involved the following steps:

1. Removing the missing values
2. Normalizing the variables like views, likes, dislikes, comments, etc, wherever required
3. Categorical fields like video category were encoded for analysis

Quantitative Analysis

Python was used to analyse the datasets, the *numpy*, *pandas* and *sklearn* libraries were employed. The following techniques were used:

a) Time Series Analysis

Time series analysis is a method to analyze a sequence of data points collected over an interval of time (Velicer and Fava, 2003). Data points are recorded at consistent intervals. This kind of analysis shows

how variables change and adjust over time. Hence, time is crucial in this kind of analysis. It provides order of dependencies between the data. Time series analysis is primarily used for predicting future data values based on historical data.

In the current study, time series analysis of YouTube trends on the Kaggle dataset *DI* was performed to examine long-term trends, seasonal trends, and irregular fluctuations. This highlights the temporal changes in the popularity of YouTube over time.

b) Regression analysis using Machine Learning

Regression analysis (Raghunath, 2017) is used for estimating the relationships between a dependent variable which is known as the 'response' variable, or a 'label' in machine learning and one or more independent variables (known as 'predictors') in the analysis .

The linear regression model was used to study relationship between YouTube video view counts(*independent variable*) and likes and dislikes(*dependent variables*) of users.

This study highlights YouTube as a popular social media platform, used by content creators and influencers for revenue generation.

3. Results and Discussion

The dataset D1 is split over 24 rows and 11 columns where each cell represents the percentage of Indian internet users over that particular website in a particular month. In India, the popularity of YouTube has progressed relatively slowly since its debut in 2008. Moreover, the growth in digital infrastructure has helped in the growth of YouTube (Bidav and Mehta, 2024). The graphs in Figure 1 indicate the growth of YouTube as the most popular platform.

Trend Component: This component represents the long-term underlying behavior or direction of the time series. It captures the overall movement of the data over time, ignoring the short-term fluctuations and noise. Visibly rising overtime, and is thus indicative of the rise in the use of YouTube (and thus increased revenue generation).

Seasonal Component: This component represents the regular, repeating patterns in the data that occur at fixed intervals. It captures the cyclic behavior that repeats over a specific time span, such as daily, weekly, or yearly patterns. We see periodic fluctuations within the system, but it still maintains a positive graph, never dipping into the negative. Thus, even at its least used, YouTube brings in respectable revenue to the digital economy. The longevity of the videos on its platform not only ensures residual income during the lower points but also helps it become a relatively more stable source of income when compared to other social media platforms.

Residual (or Residue) Component: Also known as the noise or error component, this captures the random fluctuations or irregularities that are not accounted for by the trend or seasonal components. It represents the unpredictable part of the time series.

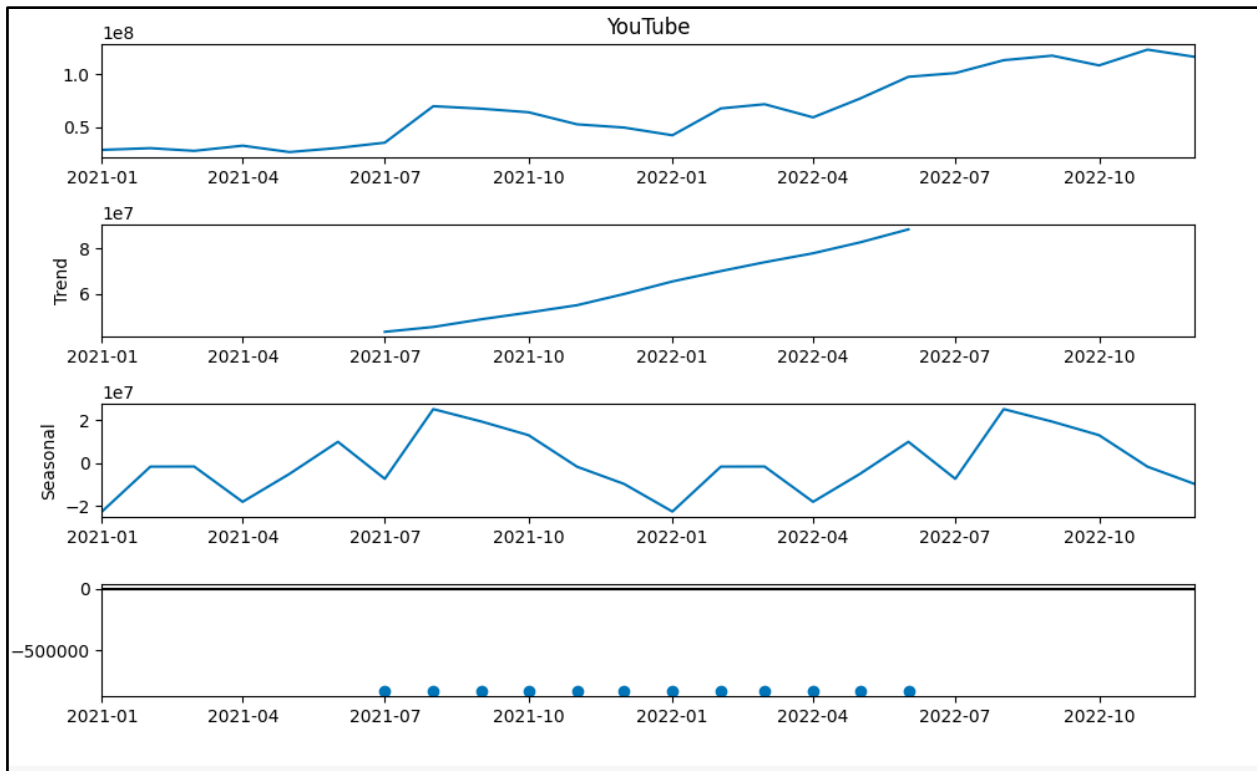


Figure 1. YouTube as a trending Platform

Additionally, using the dataset *D2*, the most relevant topics on YouTube were studied (Figure 2), according to the current public media consumption and algorithmic favoritism. From the statistical analysis applied over *D2* it was inferred that:

- ‘Entertainment’ sector is highly popular with 6238 views per video on average, followed closely by ‘People & Blogs’ with 6024 views per video on average.
- The least watched category of videos appears to be ‘Education’, with 580 views per video on average.

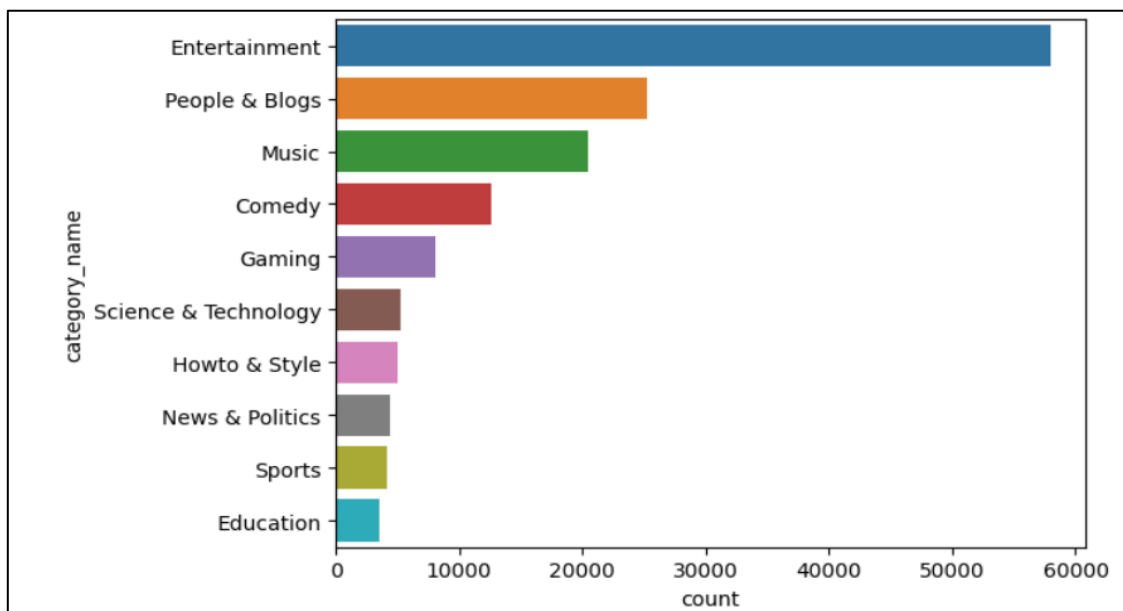


Figure 2. Popularity of different categories of videos

Using the D3 dataset, the overall response of the public to a video was analyzed. This chart illustrates the popularity of YouTube as a platform and its growing fields of interest from August 2020 to August 2023.

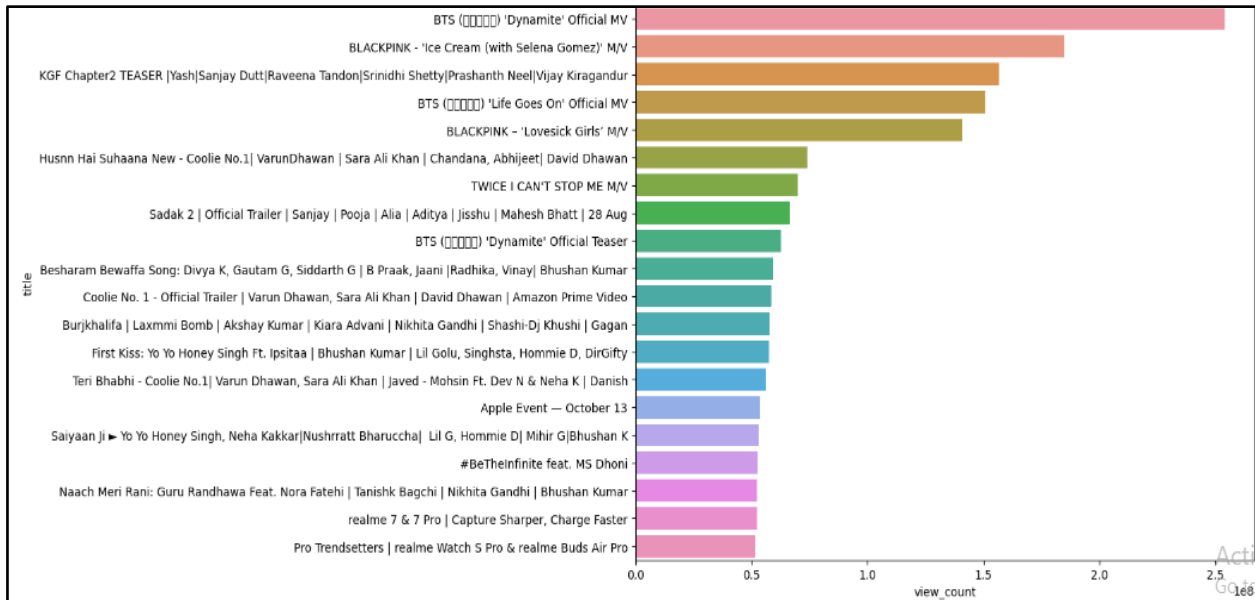


Figure 3. Top 20 most viewed videos in the time period of August 2020 - August 2023 in India

Figure 3 shows that out of the top 20 most viewed videos, approximately 12 of them are music videos - both of Indian and international production. Music videos are important to the revenue of the entertainment industry (and by extension, the economy) in two major ways: product placement and YouTube monetisation. YouTube is integral to the music industry in not only the promotion of music artists but also the subsequent monetization of the videos and the generation of ad revenue. With highly viewed viral videos as those mentioned above, it can be observed that the overall revenue generated sky rocket - which thus feeds into the economy of the music industry. This is overall beneficial to the economic landscape of both India, the site of revenue generation and the country of origin and production of the artists. Secondly, YouTube is incredible as a platform for product placement. As the primary form of consumption is audio-visual, artists can seamlessly blend sponsored products into their videos, and thus increase the overall profit made through a video.

It is also important to observe in Figure 3 that the other 8 videos among the most viewed are shorts. Shorts are user-generated short content, greatly regarded as the medium of maximum reach and longevity. Thus, it can be observed that the content generated in the form of shorts have the same probability and rate of success as the high budget production entertainment companies.

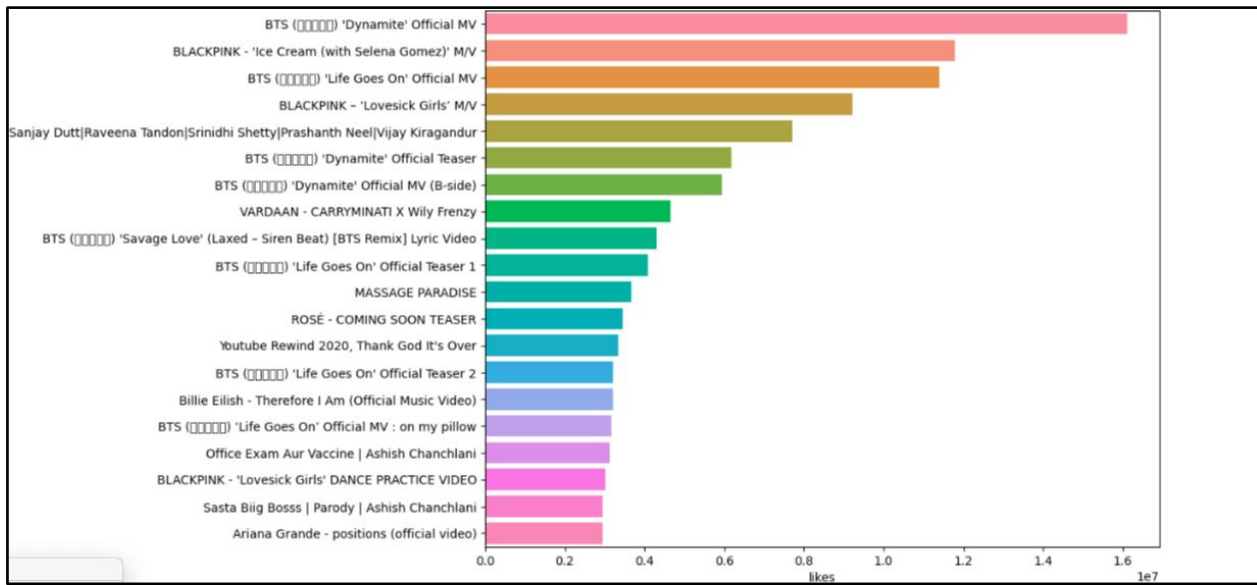


Figure 4. Top 20 most liked videos in the time period of August 2020-August 2023 in India

Figure 4 shows multiple observations within this graph, that greatly overlap with the 20 most watched videos, as can be seen in Figure 3. It can be concurred that the general audience of a highly successful YouTube video, by and large, interacts with it positively. The public consume content that appeals to them en masse, and thus a rise in content consumption and by extension, in the revenue generation is expected. This analysis is further supplemented by the three-regression analysis (Figure 5) performed on the views with relation to the following: likes, dislikes and comments. With reference to the likes v/s views analysis, it can be observed a steeply positive relation between the two. The growth in the number of views is directly proportional to the number of likes a video has and thus, this supplements our previous hypothesis. Similarly, with reference to dislikes, the regression line is more or less flat - implying close to no relation between dislikes and views. Thus, it can be assumed that the public not only tends to interact with the content positively, but also that negative reception of popular videos is very low.

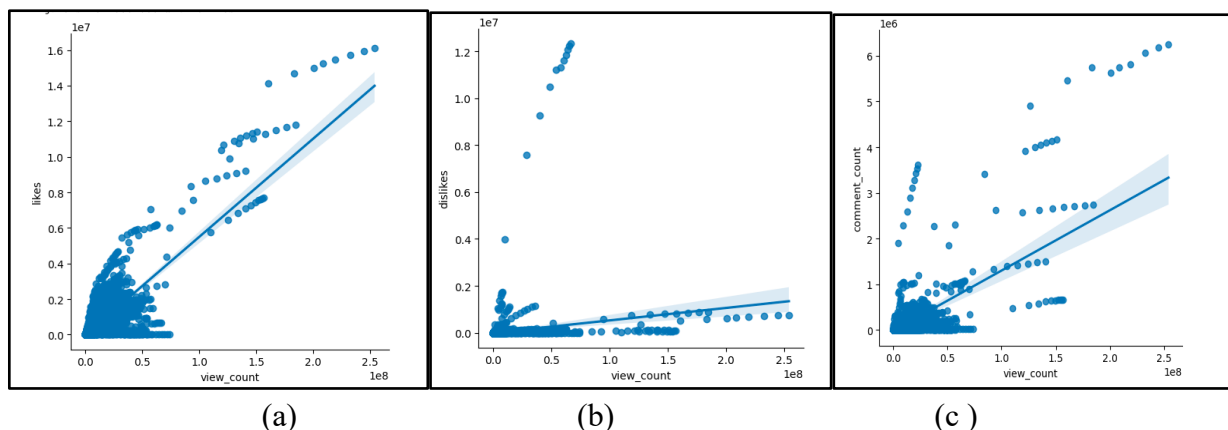


Figure 5. Regression Analysis of View Counts on YouTube Videos v/s their Likes, Dislikes, Comments

Analysis also showed that almost all of the channels are homegrown in nature as shown in Figure 6 - belonging to either an Indian Entertainment business or to smaller individual creators. Thus, it can be

seen that YouTube brings a generous income to both high to mid-level businesses, becoming a genuine source of stable income for multiple content creators.

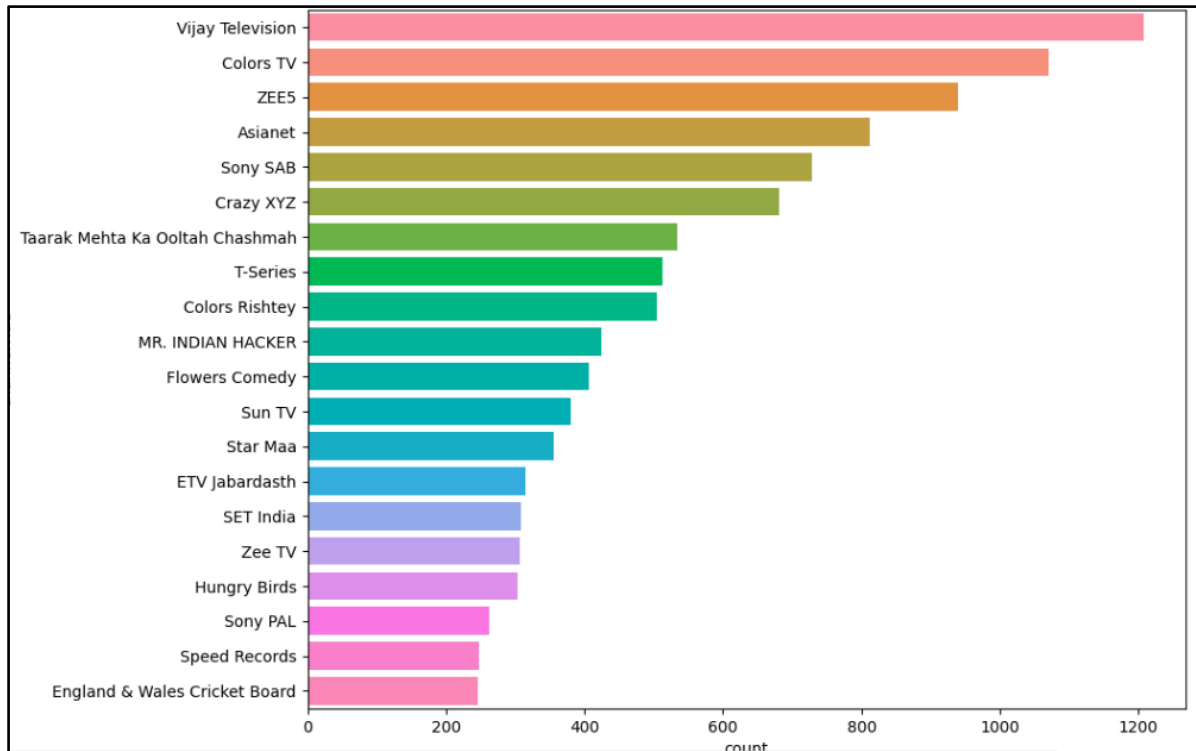


Figure 6. Top 10 YouTube channels with the maximum trending videos in the last 3 years

Through this study, it was investigated how users and creators build their online presence across YouTube and increase their revenue generation. YouTube has evolved and matured from displaying short clips into a vast ecosystem of increasingly commercial channels catering to large audiences and acquiring significant revenue.

With the rise of platforms like YouTube, it's become possible to earn money through ads, sponsorships, merchandise sales, and direct contributions from followers making it a potential platform for employment. The influencers employ endorsement-based advertising to monetize their content on social media platforms and blogs (Mathur et al. 2018). This social media retailing (SMR) model is a retailing strategy, where the creator is also a seller. The creator creates content for the consumer and sells a product on the SMR platform. The platform rewards the creator for content creation and takes commission on the sales of creator's content (Cai et al. 2024). This is basically an incentive mechanism. The social media platforms help the creators to follow their passion and earn an income also. Many passionate creators are making their living and earning a stable income by following their hobby. Content creation provides an alternative platform for individuals to express themselves, their thoughts, beliefs, and emotions. The study suggest that the creator economy is a healthy and growing sector. Content creators are playing an increasingly important role as entrepreneurs and job creators in several economies (Johnson et al. 2022).

4. Conclusion

The study investigates the transformative impact of social media on the creator economy in the context of

the Indian economy. The study has highlighted the growing nature of YouTube's popularity as a social media platform, its valuable current and possibly future contribution to the economy. YouTube offers several ways for creators to monetize their content, including advertising, channel memberships, etc. This allows creators to generate a sustainable income from their work. It was observed that 'Art and Entertainment' videos are the most popularly viewed videos on YouTube. Most of the channels are homegrown in nature - belonging to either an Indian Entertainment business or to smaller individual creators. The study concludes that YouTube brings a generous income to both high to mid-level businesses, becoming a genuine source of stable income for multiple content creators. It significantly contributes to India's creator economy by offering multiple income-generating avenues such as advertising, sponsorships, brand collaborations, and channel memberships.

The study can be extended in the future to compare the revenue generation aspect of different social media platforms like Instagram, TikTok, etc. Advanced predictive modelling can be applied to predict trending patterns, engagement patterns and revenue potential.

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