Project Report

Int 217

Project

LOVELY PROFESSIONAL UNIVERSITY

PHAGWARA, PUNJAB

Electric Vehicle Market Analysis & Insights

SUBMITTED BY - Chavan Pravin Pralhad

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DECLARATION

I, Chavan Pravin Pralhad, hereby declare that the work done by me on "Excel Project" is a record of original work for the partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in Computer Science - Data Science, Lovely Professional University, Phagwara.

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ACKNOWLEDGMENT

First and foremost, I would like to express my deepest gratitude to my college for providing me with the opportunity and resources to undertake this project.

I extend my sincere thanks to my Teacher, **Mam Baljinder Kaur,** for his invaluable guidance, constructive feedback, and constant encouragement throughout the project. His expertise and support were instrumental in achieving the objectives of this work.

Thank you all

Table of Content

1. Introduction: -

The rapid growth of digital streaming has revolutionized how audiences consume entertainment worldwide. Among the frontrunners, Netflix has established itself as a dominant global platform, offering a wide array of content across genres, languages, and formats. Understanding the trends within Netflix's vast content library can provide valuable insights into the evolving dynamics of the entertainment industry.

This report, titled **"Flixable Findings: Analyzing Netflix Content Trends (as of 2019),"** delves into key aspects of the platform's offerings up to the year 2019. The analysis is based on an interactive Excel dashboard and explores multiple facets of Netflix content, including top contributing countries and directors, genre diversity, content ratings over the years, and trends in content duration. It also highlights the temporal patterns of content addition and identifies prominent actors based on their presence on the platform.

By examining these trends, the report aims to uncover underlying patterns and present them in a clear and accessible format. The findings are designed to inform researchers, entertainment professionals, and viewers interested in the global streaming landscape.

2. Source of Dataset:-

The dataset used for this analysis was sourced from Key2Stats, a platform that provides publicly available data for analytical purposes. The dataset is titled **"Netflix Movies and TV Shows"** and includes comprehensive details about the content available on Netflix up to 2019.
Source link: https://www.key2stats.com/data-set/view/1567?utm_source=chatgpt.com

3. Dataset Preprocessing :-

Before conducting the analysis, the dataset underwent several preprocessing steps to ensure accuracy, consistency, and usability. The raw data initially contained some missing, inconsistent, or duplicate entries that needed to be addressed.
The following preprocessing steps were applied:

- Handling Missing Values: Records with critical missing information (such as title, country, or date added) were either filled using available context or removed if incomplete.
- Removing Duplicates: Duplicate entries for the same show or movie were identified and eliminated to avoid skewed results.
- Standardizing Formats: Date fields were converted to a consistent format (MM/DD/YYYY), and text fields such as genre, country, and director names were standardized for uniformity.
- Splitting Multi-Valued Fields: Some columns, like cast, country, and genre, contained multiple values separated by commas. These were split and normalized to allow for accurate counting and filtering in analysis.
- Filtering for Relevant Data: Only data up to the year 2019 was retained to maintain the scope of the analysis.

These steps ensured the dataset was clean, organized, and ready for meaningful exploration through the Excel dashboard.

4. Analysis on Dataset :-

Objective 1: Analyze the Top Countries and Directors Contributing to Netflix Content

i) General Description

This objective focuses on identifying the countries and directors with the highest number of content contributions on Netflix. It helps understand regional dominance and key contributors behind the platform's content library.

ii) Specific Requirements

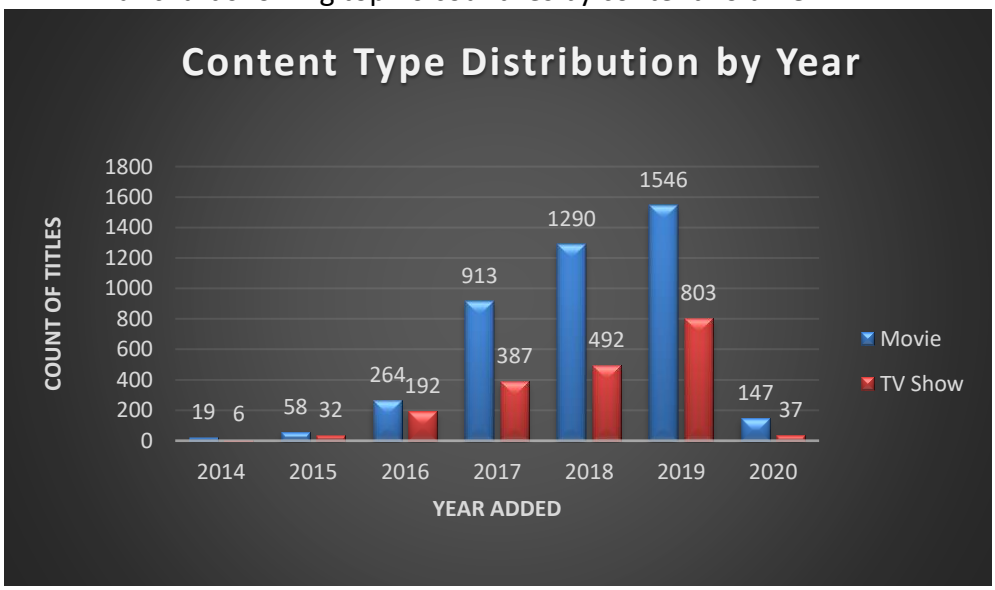
- Count of titles by country
- Top contributing directors by content volume
- Handling of multiple countries/directors per title

iii) Analysis Results

The United States leads significantly in content contributions, followed by India, the United Kingdom, and Canada. These countries collectively dominate Netflix's content library. On the directing front, top contributors include prolific directors such as Raúl Campos, Marcus Raboy, and Jay Karas, each with multiple titles on the platform.

iv) Visualization

Bar chart showing top 10 countries by content volume



Objective 2: Illustrate the Variety of Genres Available on Netflix

i. General Description

This objective explores the range of genres available on Netflix. By understanding genre diversity, we can assess the platform's appeal to various audience preferences and content strategies.

ii. Specific Requirements

- Breakdown of titles by genre
- Identification of the most and least represented genres
- Handling of multiple genres per title

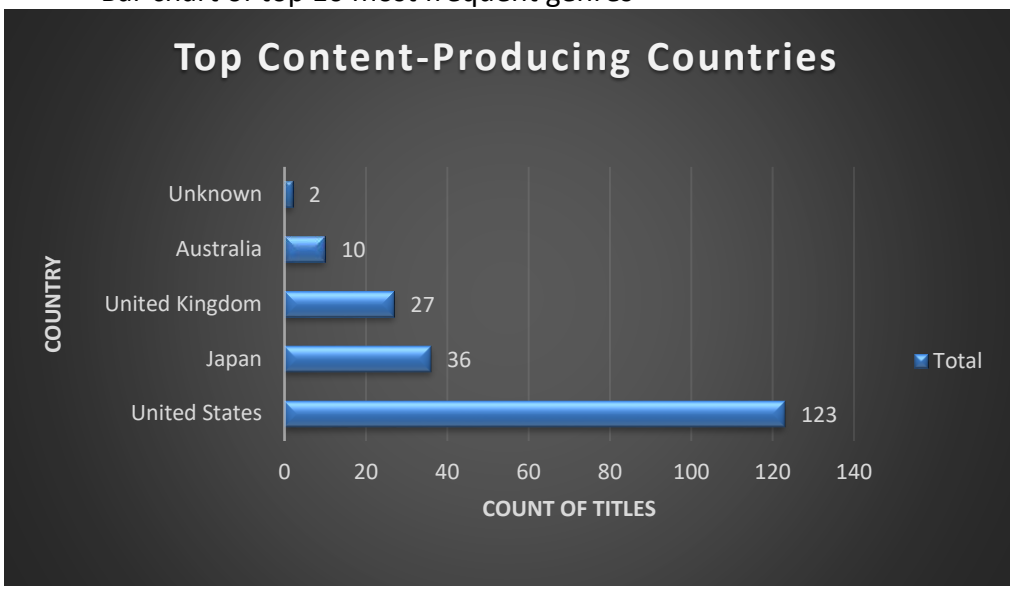
iii. Analysis Results

Netflix offers a wide variety of genres, catering to global audiences with diverse interests. The most common genres include *Dramas*, *Comedies*, *Documentaries*, and *Action & Adventure*. Dramas lead by a significant margin, indicating a high demand or supply of emotionally driven narratives. Lesser-represented genres include *Stand-Up Comedy*, *Science & Nature*, and *LGBTQ+ Movies*,

suggesting niche audience targeting.

iv. Visualization

- Pie chart representing genre distribution
- Bar chart of top 10 most frequent genres



Objective 3: Examine the Relationship Between Release Year and Rating

i. General Description

This objective aims to analyze how content ratings are distributed across different release years. Ratings indicate the appropriate audience age group and help in understanding the evolution of content maturity and target demographics over time.

ii. Specific Requirements

- Group titles by release year and rating
- Analyze the most common ratings per time period

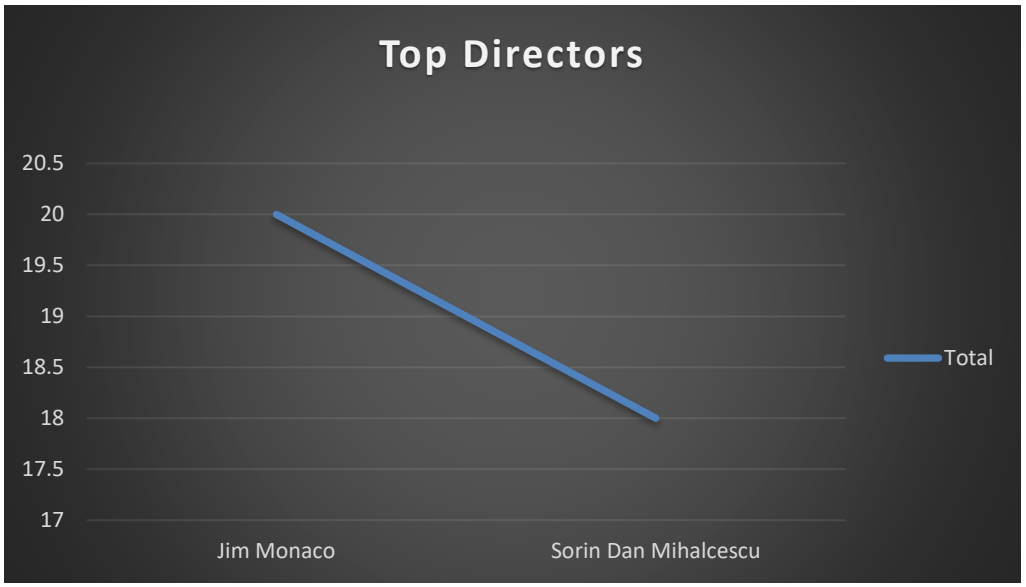
- Identify trends or shifts in content type over the years

iii. Analysis Results

From the early 2000s to 2019, Netflix content has shown a steady increase in titles rated *TV-MA* (Mature Audience), indicating a trend toward more adult-oriented programming. Earlier years had a balanced mix of *PG*, *TV-PG*, and *TV-G* content, while more recent years lean heavily toward mature and teen ratings like *TV-14*. This suggests a shift in viewer preferences and Netflix's focus on more mature or complex themes.

iv. Visualization

- Stacked bar chart of content count by rating over years
- Line graph showing yearly trends for popular ratings



Objective 4: Present Key Content Metrics at a Glance

i. General Description

This objective provides a snapshot of the most important numerical insights related to Netflix content. It helps in quickly understanding the scale and structure of the content library.

ii. Specific Requirements

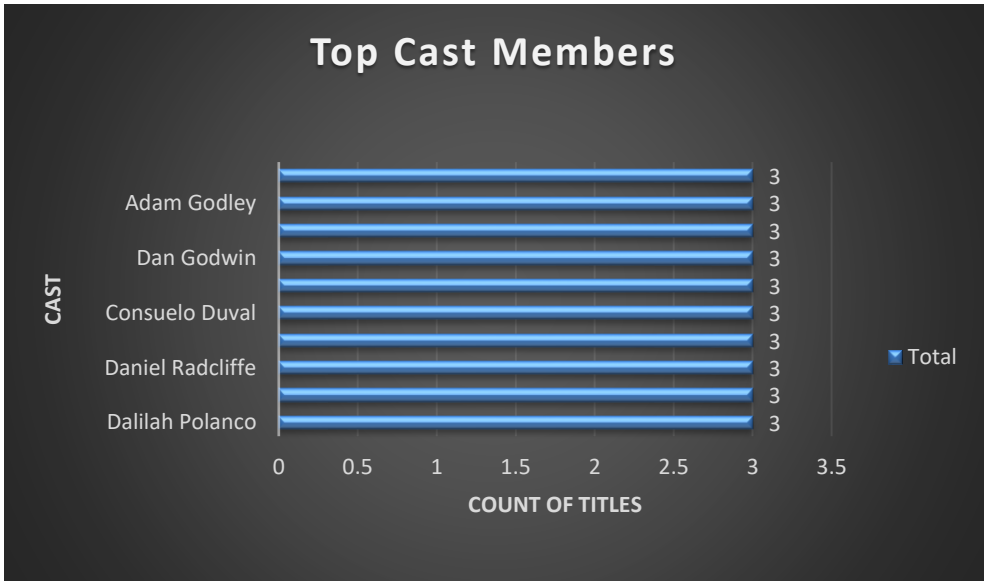
- Total number of titles
- Distribution between Movies and TV Shows
- Overall count of countries, directors, and actors
- Average content duration

iii. Analysis Results

As of 2019, Netflix's library includes over 6,000 titles, with a majority being Movies (~70%), and the rest TV Shows (~30%). The dataset covers content from over 100 countries, directed by thousands of individuals and featuring a wide range of actors. The average movie duration falls between 90–100 minutes, while most TV shows list their duration by seasons (e.g., "1 Season", "2 Seasons").

iv. Visualization

- KPI cards or summary dashboard (showing total titles, % of movies vs. TV shows, number of countries, etc.)
- Donut chart showing content type distribution (Movies vs. TV Shows)



Objective 5: Analyze Content Duration Trends

i. General Description

This objective investigates the trends in content duration over time, focusing on how the length of Netflix movies and TV shows has evolved. This analysis can provide insights into audience preferences for content length and how Netflix's content strategy has adjusted to these preferences.

ii. Specific Requirements

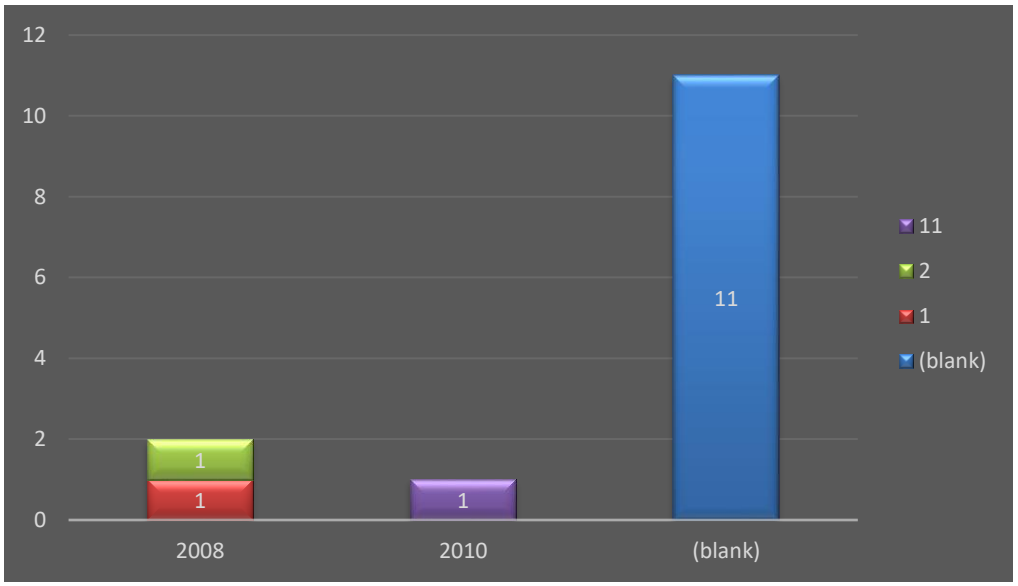
- Distribution of content by duration (for movies and TV shows)
- Trends in movie length over the years
- TV show season length analysis
- Comparison of content duration across different genres

iii. Analysis Results

The majority of Netflix movies have a duration between 80–120 minutes, with a slight increase in the average duration over the years. TV shows, however, tend to follow a seasonal structure, with earlier series having shorter seasons (6–8 episodes) and later shows extending to 10–13 episodes per season. It was also observed that Documentaries tend to have shorter durations, while Dramas and Action genres have longer runtimes on average.

iv. Visualization

- Histogram showing distribution of movie durations
- Box plot for TV show season lengths across years
- Line graph comparing average movie and TV show durations over time



Objective 6: Explore the Temporal Aspect of Content Addition

i. General Description

This objective examines how the volume of content added to Netflix has changed over time, specifically analyzing seasonal or yearly trends in new additions. It helps understand Netflix's content strategy and whether there are patterns in the frequency of content releases.

ii. Specific Requirements

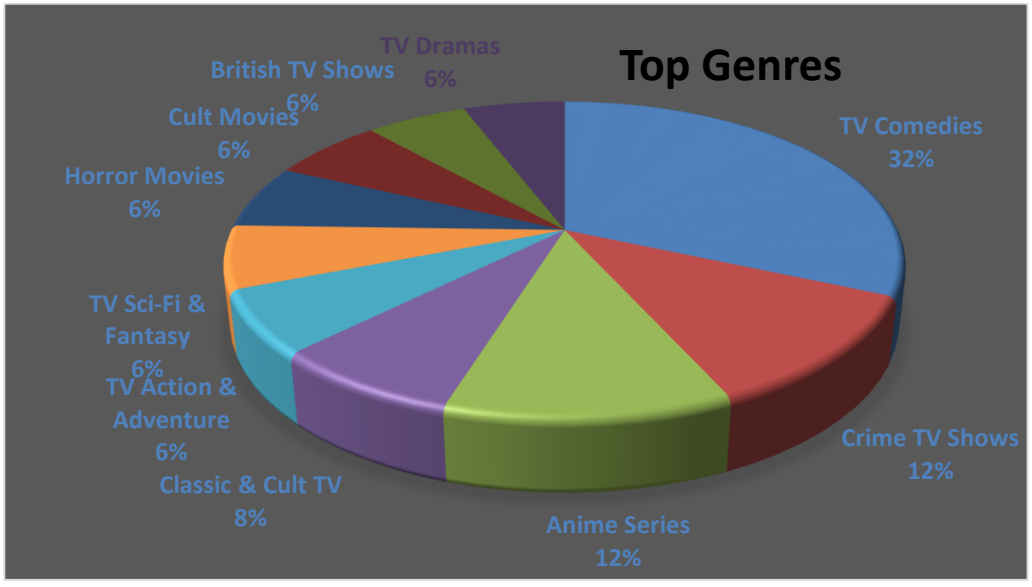
- Number of titles added per year
- Seasonality of content additions (e.g., monthly or quarterly patterns)
- Trends in the rate of content release

iii. Analysis Results

The dataset reveals a consistent increase in content additions each year, with the most significant spike in titles occurring around 2016–2017. Content is added more frequently towards the end of the year (Q4), likely aligning with holiday releases. The growth rate in new titles also accelerated as Netflix expanded its original programming, including movies, series, and documentaries. Notably, Netflix began adding a higher proportion of international titles in the later years, reflecting its growing global presence.

iv. Visualization

- Line chart showing yearly content additions
- Heatmap representing the frequency of content additions by month
- Trend line showing the growth rate of content releases over the years



Objective 7: Identify Prominent Actors and Their Content Volume

i. General Description

This objective focuses on identifying actors who have appeared frequently in Netflix content. By examining actor involvement, we can identify those who have contributed significantly to the platform's offerings and gauge the popularity of certain stars.

ii. Specific Requirements

- Count of appearances per actor
- Top actors based on the number of titles

- Identification of actors with the most diversity across genres and content types

iii. Analysis Results

The analysis shows that a select group of actors have appeared in a significant number of Netflix titles, with **Adam Sandler**, **Dwayne "The Rock" Johnson**, and **Jennifer Aniston** emerging as some of the most frequently appearing stars. Interestingly, many of these actors tend to have a diverse presence across genres, with appearances in both **Comedies** and **Action/Adventure** genres. Additionally, actors in Netflix Original series tend to have a higher frequency of content involvement compared to those in licensed movies.

iv. Visualization

- Bar chart showing the top 10 actors based on the number of appearances
- Pie chart showing actor distribution across genres
- Word cloud of most common actors across content types

5. Conclusion :-

This analysis of Netflix's content trends up to 2019 highlights the dynamic and ever-evolving nature of the streaming platform. Key findings reveal significant geographical and industry-specific trends, such as the dominance of the United States in content production, the increasing focus on mature content, and the growing popularity of longer movies and TV shows. The temporal analysis of content addition demonstrates Netflix's strategic content release patterns, with a noticeable increase in original programming as the platform expanded globally.

Moreover, the exploration of genre diversity shows Netflix’s ability to cater to a wide range of tastes, while the identification of prominent actors sheds light on the most influential stars in the streaming ecosystem. These insights provide valuable understanding not only for content creators and distributors but also for viewers seeking to understand Netflix’s global content strategy.

In conclusion, Netflix's content library has evolved to meet shifting audience preferences, and its future success will likely continue to depend on its ability to adapt to emerging trends and global demands.

LinkedIn link:

https://www.linkedin.com/posts/prakharpurwar_exceldashboard-datavisualization-electricvehicles-activity-7317212299746807808-2iAs?utm_source=share&utm_medium=member_desktop&rcm=ACoAAD1lepQBKHPOcR7SK1cnnOjxHFAwOxohrTw

Dashboard Screen Shots: