

Project 5 - IMDB Movie Analysis

Project Description

The project involves assuming the role of a data analyst to grasp the statistics related to the IMDB movie analysis. Using the fundamental statistical concepts, we'll manipulate the data to perform further analysis. Additionally, we'll explore how Excel functions can efficiently extract information essential for a data analyst's routine tasks. Teaching the practical application of these functions is the primary aim of this project.

Approach

The project is a medium one on the difficulty level scale. The approach will be to perform the tasks in an organized way, creating separate sheets in the workbook for different tasks performed.

Tech-Stack Used

The analysis for this project has been performed using Microsoft Excel 16.78.3 as it offers a user-friendly interface that allows users to work with data, perform calculations, and create visual representations without extensive programming knowledge.

Insights

Movie Genre Analysis:

- Audience preferences: Analyzing popular genres can reveal what types of stories or themes resonate with viewers. For instance, if action movies consistently rank high, it indicates a demand for adrenaline-packed narratives.
- Trends and cycles: Understanding genre popularity over time can highlight industry shifts and cyclical trends. Certain genres may rise and fall in popularity depending on cultural factors or technological advancements.
- Market segmentation: Studios use genre analysis to target specific audience demographics. For example, romantic comedies often cater to a different audience segment than horror films.

Movie Duration Analysis:

- Audience attention span: Patterns in movie duration and IMDb ratings might suggest an optimal length that keeps audiences engaged without overwhelming or underwhelming them.
- Genre-specific preferences: Certain genres might lend themselves to different durations. Action movies might have shorter optimal lengths compared to epic dramas.
- Directorial style: Certain directors might have a signature duration for their films, which could influence audience expectations.

Language Analysis:

- Global appeal: Analyzing the predominant languages in highly-rated movies can provide insights into their international success. Movies in widely spoken languages might have broader global audiences.
- Cultural influences: The language used in a film can indicate its cultural context and intended audience. Subtle nuances or linguistic choices might impact how a movie is received in different regions.

Director Analysis:

- Auteur theory: Examining the works of specific directors can reveal recurring themes, stylistic choices, or storytelling techniques unique to their vision.
- Consistency in quality: Directors with consistently high-rated movies may have a strong influence on a film's success, indicating a loyal fan base or a distinct directorial style.
- Evolution of style: Tracking a director's filmography over time can show how their style, storytelling, or choice of genres has evolved, impacting audience reception.

Budget Analysis:

- Return on Investment (ROI): Comparing budgets against IMDB ratings can reveal if higher budgets consistently translate to higher ratings or if smaller-budget films can compete in terms of quality.
- Production value: Budget analysis can highlight how effectively resources are utilized. It can show if a high budget correlates with better visual effects, star power, or overall production quality.
- Industry benchmarks: Understanding budget trends can help studios benchmark their investments against successful movies in similar genres or with similar ratings.

Result

45 duplicate records in the main sheet were removed and the empty records in the columns were also removed while performing the analysis pertaining to those specific columns.

Movie Genre Analysis:

- Most Commonly Produced Genres: Drama, Comedy, and Thriller are the most frequently produced genres in the film industry.
- Highest IMDb Score: The highest IMDb score achieved by any movie belongs to the Comedy genre.
- Average IMDb Ratings: Niche categories like Film Noir and News tend to receive the highest average IMDb ratings despite being less commonly produced.
- Standard Deviation: These niche categories exhibit a relatively low standard deviation in their IMDb ratings. This low variability indicates a more consistent level of quality among these films, which is considered a positive indicator

Movie Duration Analysis:

- **Most Common Duration:** Movies with a duration around 100 minutes are the most commonly produced.
- **Range of Movie Durations:** The majority of movies fall within the range of 85 to 125 minutes in duration.
IMDb Ratings: Movies within this duration range tend to receive ratings near 6 on average.
- **Scatter Plot:** There seems to be a positive relation between the duration of a movie and its average IMDb ratings.

Language Analysis:

- **Commonly Produced Language:** English is the most commonly used language for movie production.
- **Average IMDb Ratings:** Despite being the most produced language, movies in English do not consistently achieve higher IMDb ratings on average.
- **Highest IMDb Ratings:** The highest IMDb ratings are attained by movies in languages such as Telugu and Polish, surpassing the ratings of English language movies.

Director Analysis:

Directors with IMDb Scores above 8 (Top 1%):

- Christopher Nolan
- S.S. Rajamouli
- Moustapha Akkad
- Richard Marquand
- Sergio Leone
- Catherine Owens
- John Blanchard
- Rakeysh Omprakash Mehra
- Mike Mayhall
- Raja Menon
- Ron Fricke
- Jay Oliva
- Damien Chazelle
- Robert Mulligan
- Mitchell Altieri
- Charles Chaplin
- Sadyk Sher-Niyaz
- Asghar Farhadi
- Marius A. Markevicius

- Majid Majidi
- Cary Bell
- Bill Melendez

These directors represent the top 1% in terms of IMDb scores, showcasing their exceptional achievement in consistently receiving high ratings for their work in the film industry.

Budget Analysis:

Top performing movies:

- Avatar - Achieved the highest profit margin.
- Titanic
- Jurassic World
- Star Wars: Episode IV - A New Hope
- E.T. the Extra-Terrestrial

Observations on genres:

- Top Performers' Genres: Most of the top-performing movies belong to the action, adventure, and sci-fi genres.
- Lower Performing Movies: No specific genre trend can be identified among the lowest performing movies, as many of them also belong to the action and adventure genres.

Excel link

https://docs.google.com/spreadsheets/d/1U4CVWc_hWj3_mZlQ9Qxb9RBGr73leya1/edit?usp=sharing&ouid=101949921485202693908&rtpof=true&sd=true

Video Link

<https://www.loom.com/share/1a979489060141009622953d7d519a66?sid=45759cf0-800e-4a36-9773-3bbf814251ca>