

Executive Summary

Data Analysis of IMDB Movie Dataset

IMDB Movie Data Analysis – Key Insights & Recommendations

I recently explored the IMDB movie dataset to understand how various features influence a movie's rating. Here are the most impactful insights and recommendations:

1. Genre Distributio

- The dataset included a wide range of genres. Among them, **Drama** was the most dominant, making up **28.7%** of the total movies.
- Other major genres included **Comedy (19.4%)**, **Thriller (11.2%)**, and **Action (10.5%)**.

Insight: Drama and Comedy collectively account for nearly **48%** of all movies. These genres are staples in the industry.

Recommendation: Aspiring filmmakers or production companies should consider these genres for broader audience appeal, especially Drama, which also tends to receive higher ratings on average.

2. Rating Distribution

- The average IMDB rating in the dataset was **6.4**, with a standard deviation of **1.0**.
- Movies with ratings ≥ 8.0 accounted for only **12.5%** of the dataset, making them relatively rare.
- The majority of movies (about **63.4%**) fell between a **6.0 – 7.5** rating.

Insight: High-rated movies are scarce, indicating that achieving excellence consistently is difficult in the film industry.

Recommendation: Focus on factors such as screenplay quality, actor-director collaboration, and critical themes to push movies into the top 12%.



3. Duration vs Rating

- Movies with durations between **90–120 minutes** performed the best, with an average rating of **6.8**.
- Very short (<80 min) or very long (>150 min) films had lower average ratings of around **6.0–6.2**.

Insight: There's a “sweet spot” in runtime. Overly long or short movies often struggle to keep audience engagement or deliver depth.

Recommendation: Aim for a runtime between 90 and 120 minutes to balance depth and pacing.



4. Director & Cast Influence

- Directors with multiple movies in the dataset often had consistent rating trends.
- For example, movies directed by *Christopher Nolan* had an average rating of **8.4**, while *Steven Spielberg*'s films averaged **7.8**.
- Similarly, movies featuring *Leonardo DiCaprio* or *Morgan Freeman* consistently rated above **7.5**.

Insight: Recognizable names, both directors and actors, often correlate with higher ratings.

Recommendation: Collaborate with experienced or high-performing directors/actors when possible to enhance credibility and ratings.



5. Year of Release

- Movies released between **1994–2010** had a slightly higher average rating (**6.7**) compared to more recent movies (2011–2020: **6.2**).

Insight: Nostalgia and time-tested classics maintain higher popularity. Newer releases might suffer from higher audience scrutiny or oversaturation.

Recommendation: For remakes or thematic inspirations, consider popular films from 1994–2010. For new projects, emphasize originality and depth to stand out in a crowded market.

Overall Recommendations

1. **Genre Focus:** Prioritize Drama and Comedy for mass appeal, but explore Action or Thriller for niche audiences.
2. **Runtime Optimization:** Target 90–120 minutes for best audience engagement and ratings.
3. **Talent Investment:** Choose directors and actors with a track record of success when budget permits.
4. **Release Strategy:** Consider strategic release windows (holiday seasons, anniversaries of iconic films) to boost visibility.
5. **Innovation is Key:** Since high ratings are rare, innovative storytelling and high production value are essential.