



Data Driven Movie Studio Profitability Analysis

Prepared by group 7

1. *Patrice Okoiti*
2. *Kevin Oguda*
3. *Paul Lenamuge*
4. *Dennis Osebe*

Date: 02 May 2025

BUSINESS PROBLEM

Problem statement:

- The company aims to establish a new movie studio to capitalize on the growing demand for original video content. However, due to lack of experience in movie production, they need data-driven insights to make strategic decisions about film production that will maximize profitability in a competitive entertainment market.

Target:

- This presentation explores strategic, data-driven insights for movie studio executives. We analyze box office data, financial risks, and audience feedback to optimize production strategies and profitability.

Business Challenges & Solutions

Challenges

- ◆ New to the film industry
- ◆ Uncertain production strategies
- ◆ Financial risk exposures

Solutions

- ◆ Analyze genre, budget, release date data
- ◆ Identify profitable strategies
- ◆ Provide actionable recommendations

OBJECTIVES

- To analyze historical box office data to identify trends over the years
- To explore any linear relationship between production budget and revenue
- To identify best rated genre
- To provide actionable recommendations on best film production strategies

Data Collection & Preparation

Data Sources

- IMDB
- Box Office Mojo
- The Numbers

◆

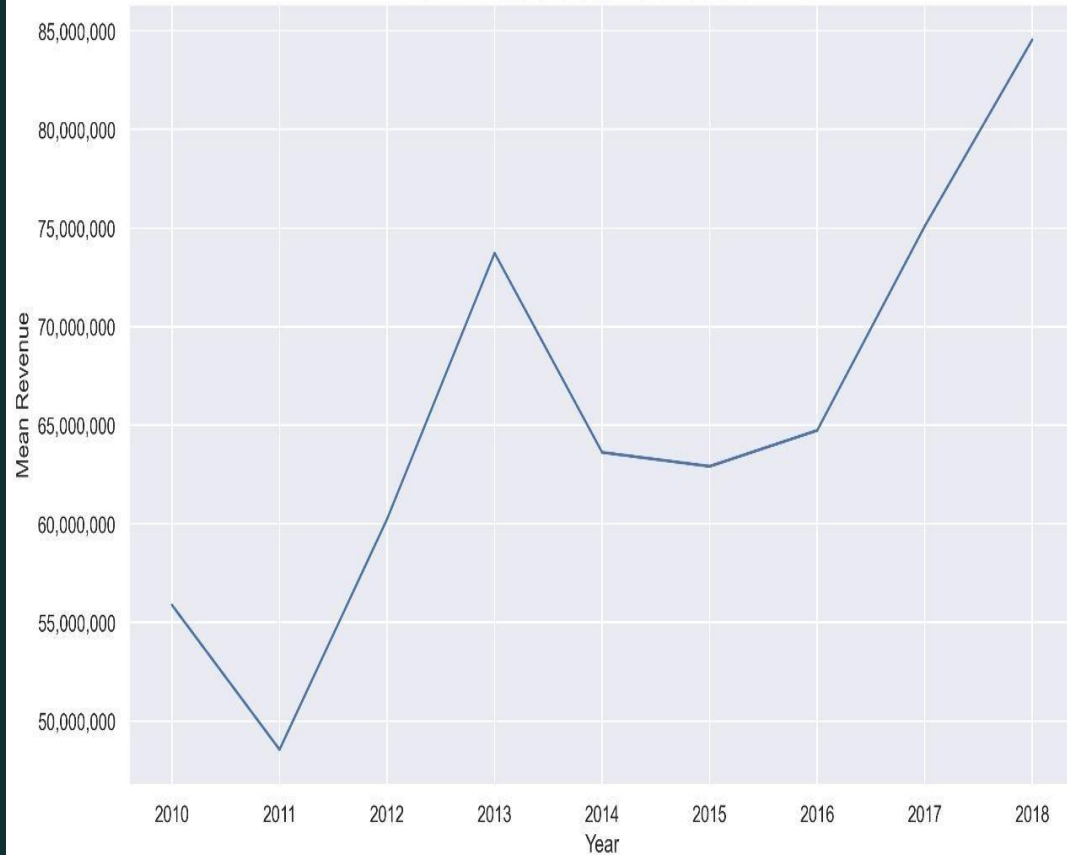
◆

Preparation Steps

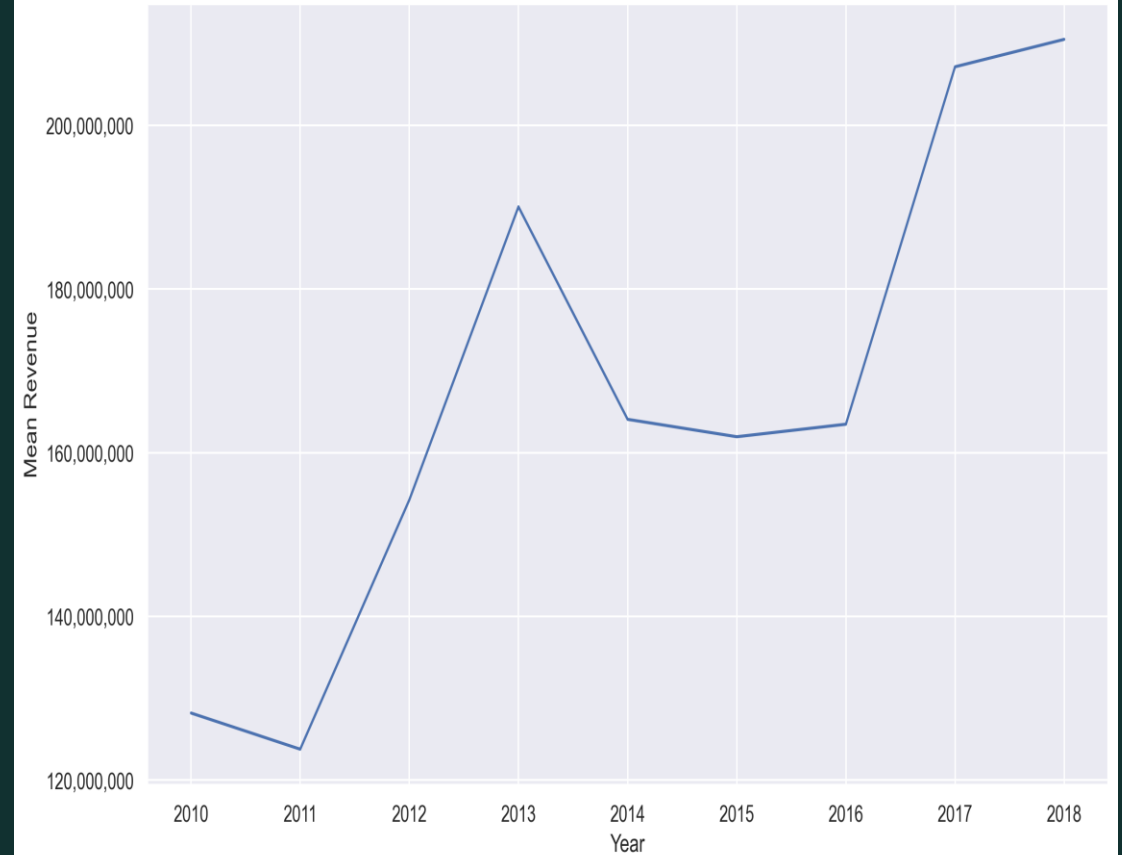
- Remove Duplicates and cleaned missing values
- Normalized columns and merged datasets

Box Office Trends Overview

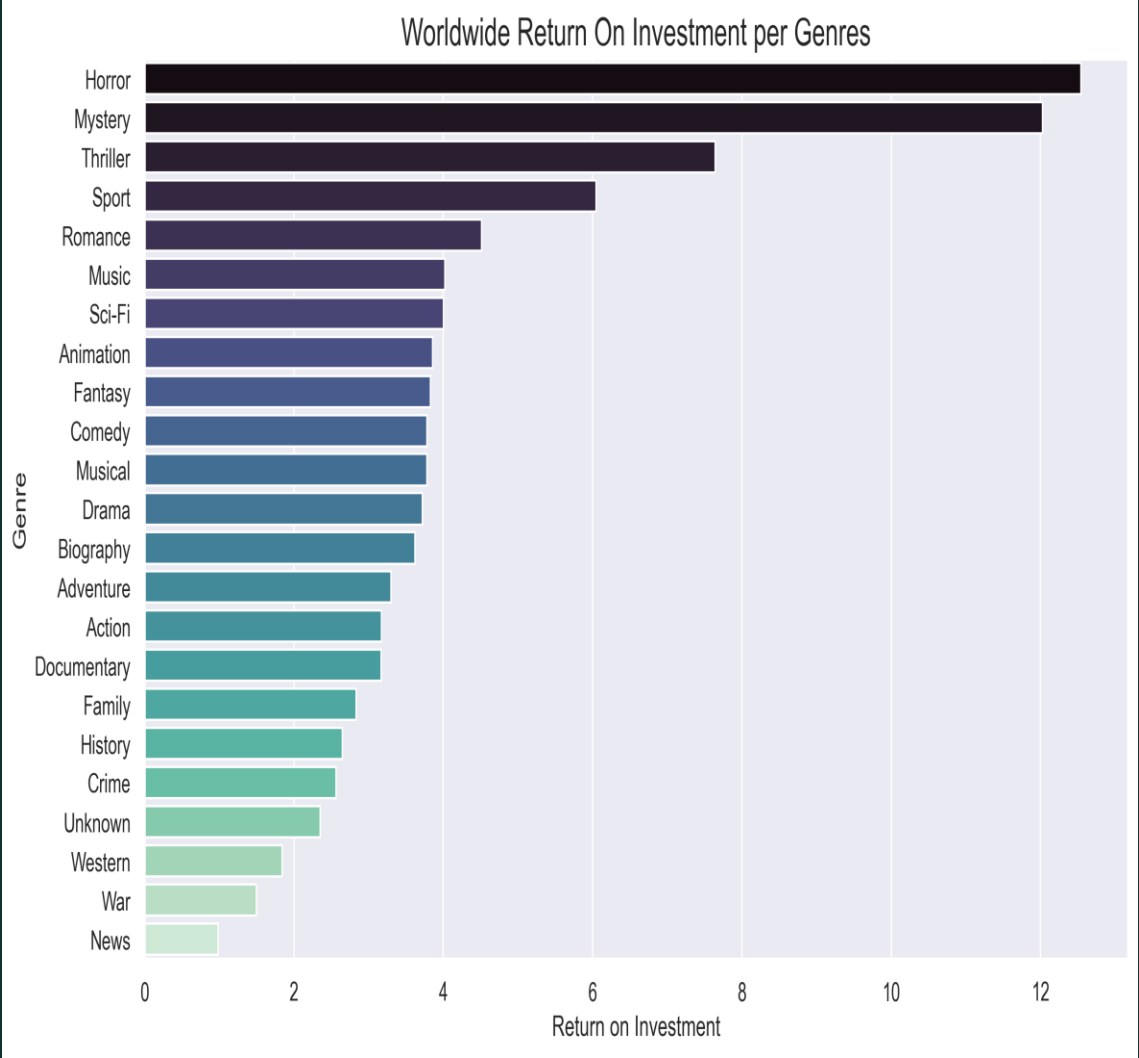
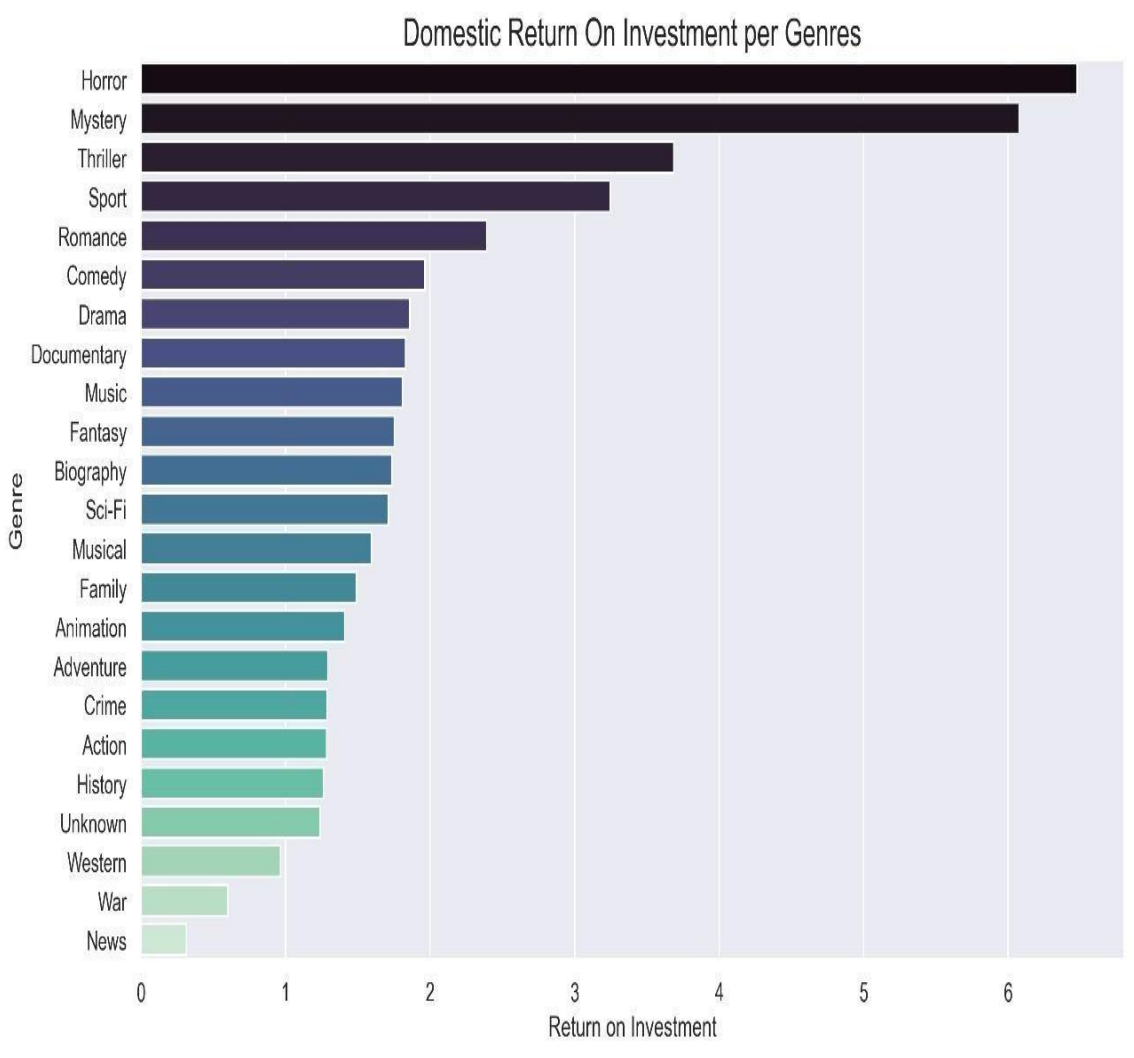
Mean Domestic Gross Revenue over Time



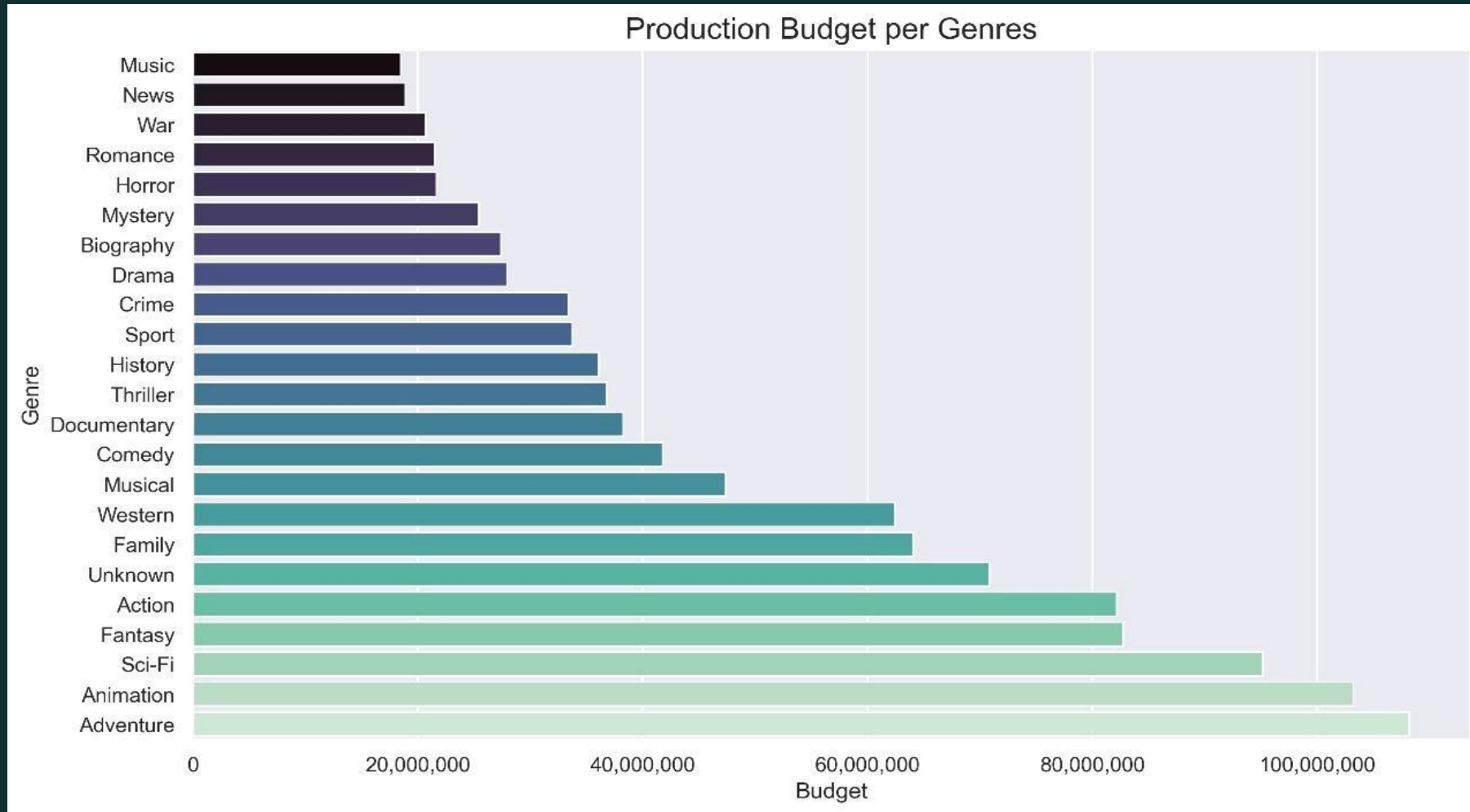
Mean Worldwide Gross Revenue over Time



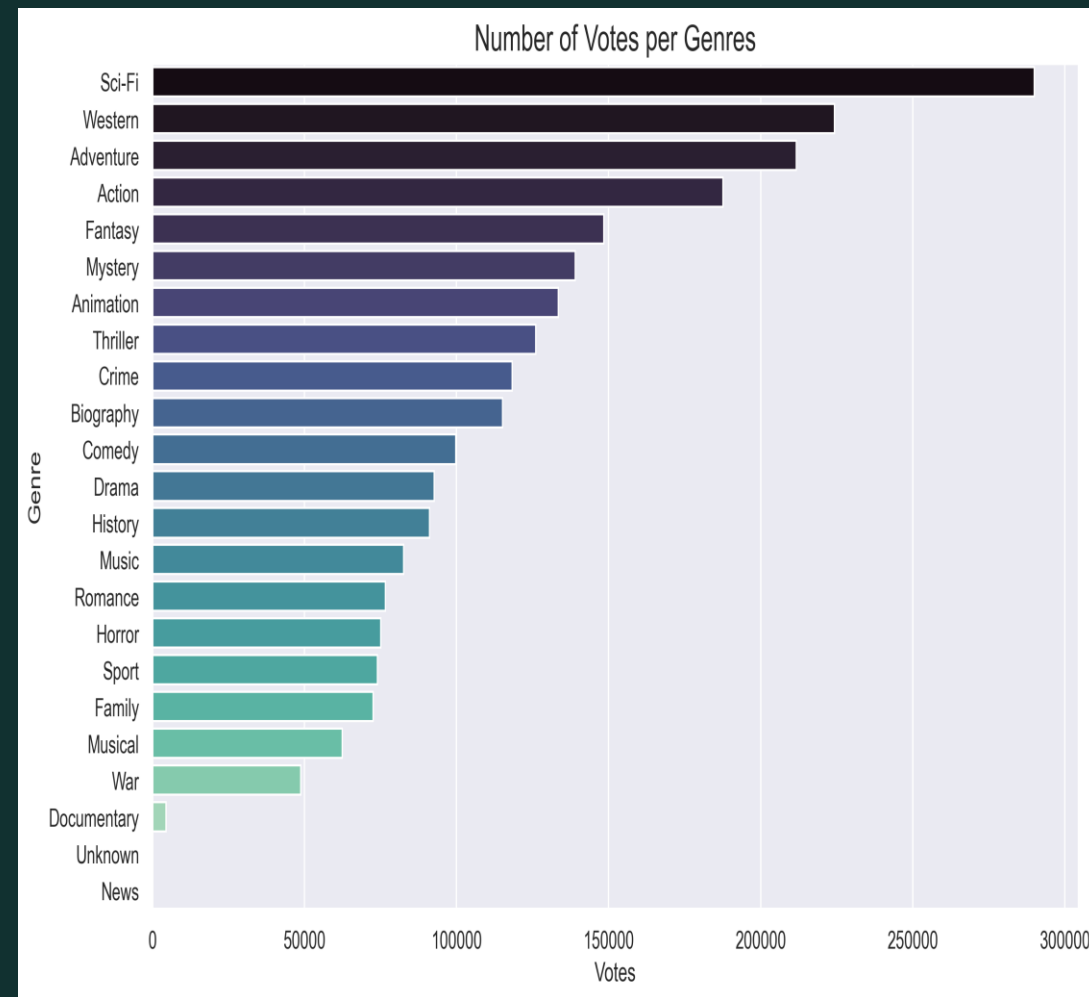
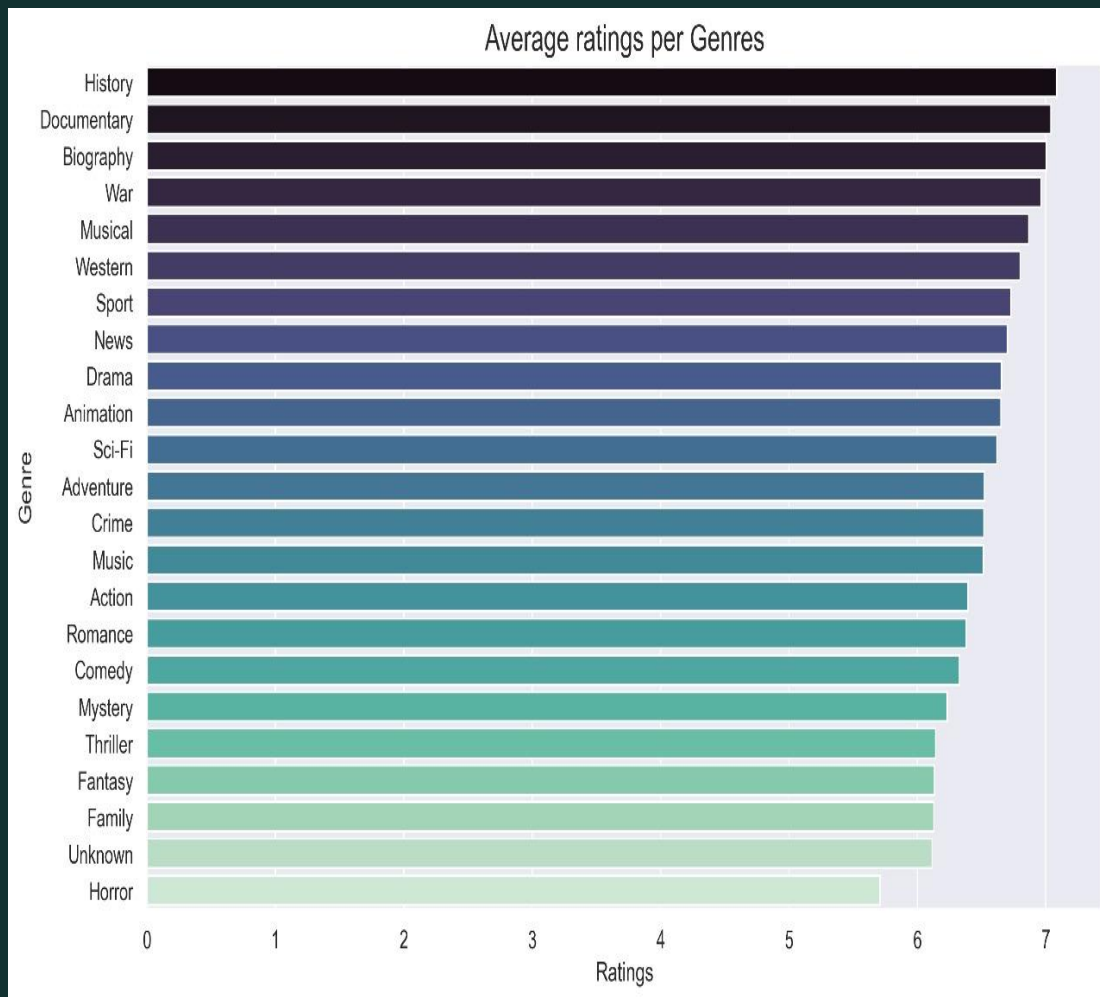
Genre vs Return on Investment



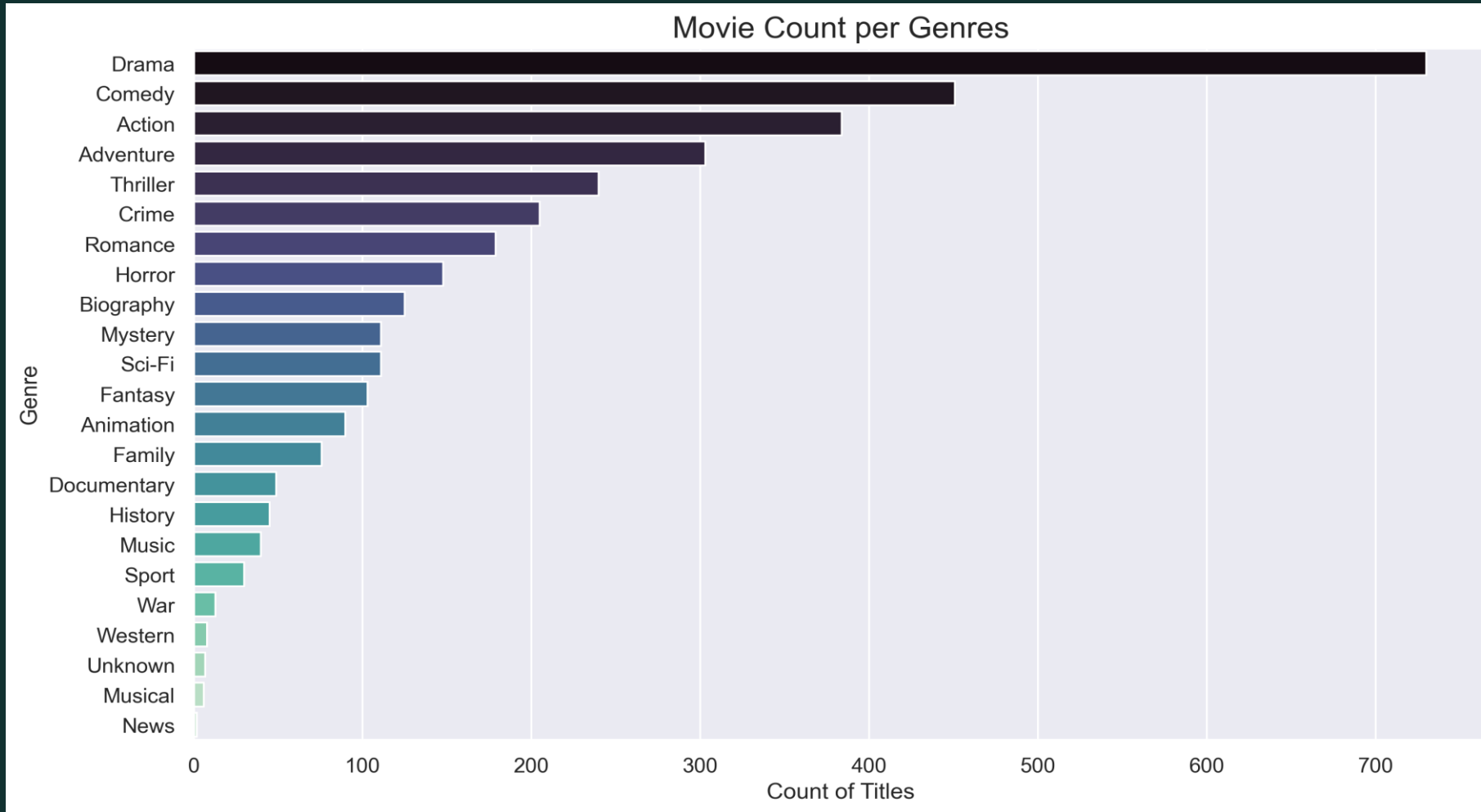
Production Budget per Genre



Ratings per Genre



Movies Count per Genre



Insights

Trend

Peak year was
2018.

Domestic revenue range

\$ 40 - \$ 85
million.

Worldwide revenue range

\$ 100 - \$ 200
million

Drama

Most frequently
produced genre.

Horror

High ROI despite lower
ratings.

Sci-Fi

Most audience votes
indicate high popularity.

History

High ratings but niche
viewership.

Key Takeaways & Next Steps



Budget Management

Lean budgets improve profit margins.



Genre Profitability

Horror yields highest ROI among evaluated genres.



Audience Focus

Customize strategies to genre-specific audience preferences.



Strategic Direction

Align studio production with data and market trends.



Strategic Recommendations for Studio

1

Focus Genres

Prioritize Horror, Mystery, Thriller genres for profitability.

2

Budget Control

Cap budgets at around \$30 million to maximize returns.

3

Collaborations

Partner with streaming platforms to widen distribution.

4

Data-Driven

Use analytics continuously to fine-tune production strategies.

