Blockbuster Blueprint for Microsoft's Movie Mastery
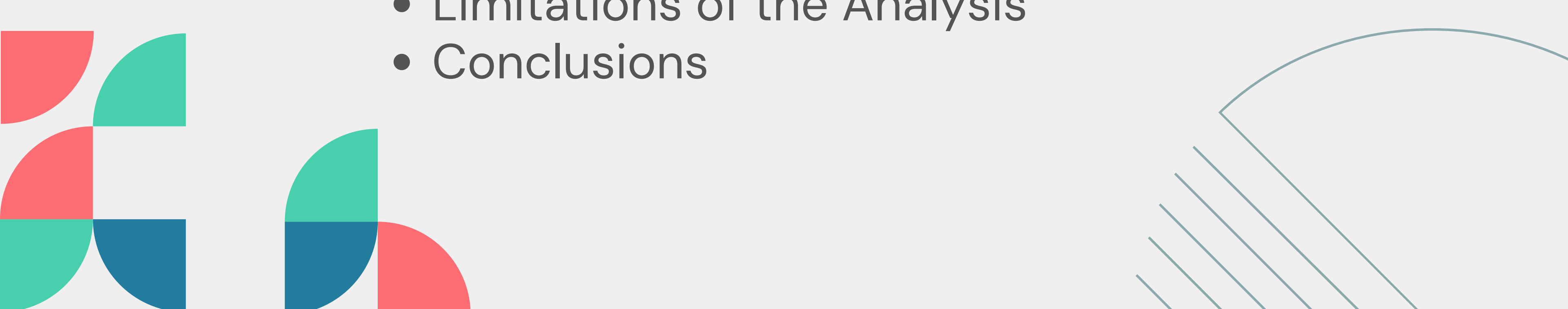
by Ope Branley

"DATA-DRIVEN INSIGHTS

FOR STRATEGIC DECISION-MAKING"

Overview

- Business Understanding
- Data Understanding
- Data Analysis
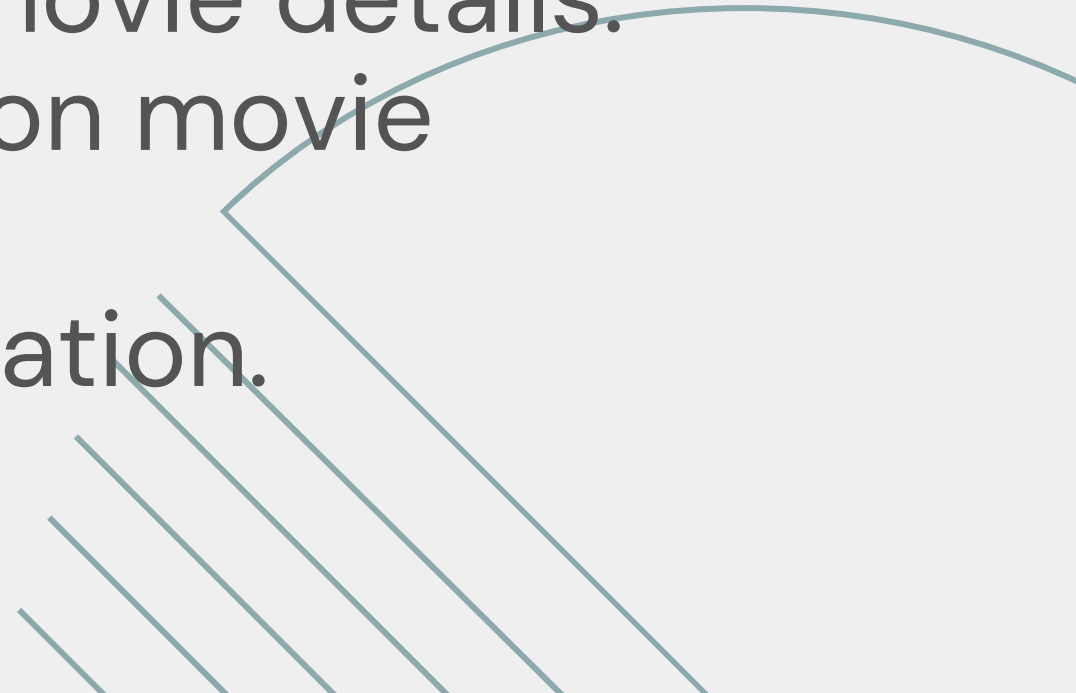- Recommendations
- Limitations of the Analysis
- Conclusions

BUSINESS UNDERSTANDING

- Microsoft aims to enter the movie industry by launching a new studio but lacks filmmaking experience.
- This project will provide crucial data-driven insights to guide strategic decisions.
- Key stakeholders include Microsoft executives, the new studio head, and the data analysis team. Marketing teams, investors, and creative teams also affected.
- The insights derived from this project will directly influence the types of films the new studio produces, impacting production and marketing strategies.
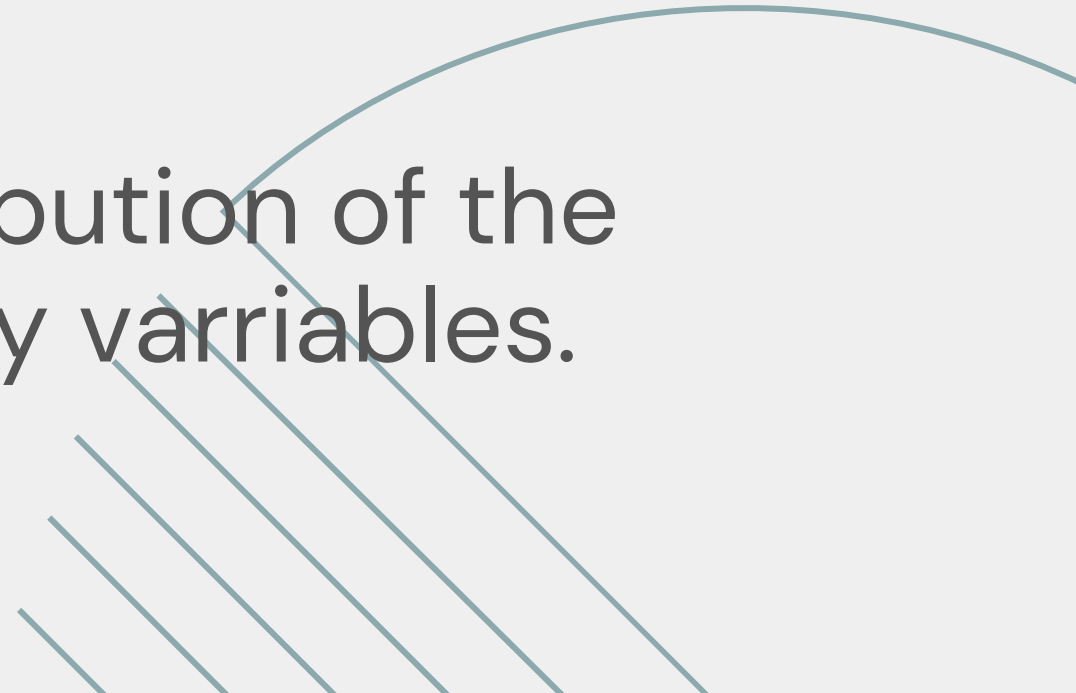
DATA UNDERSTANDING

Data Sources:

- IMDB Local Database: Detailed information on movies and TV shows.
- Rotten Tomatoes Reviews: Aggregated critical reception data.
- Rotten Tomatoes Movie Info: Comprehensive movie details.
- The Numbers Movie Budgets: Financial details on movie budgets and performance.
- TMDb Movies: Additional movie-related information.

DATA ANALYSIS

STEPS TAKEN

1. The data was cleaned by handling missing values and having the formats standardized.
2. Datasets were then merged using common keys.
3. Duplicates were removed to ensure data integrity.
4. New features were engineered.
5. Descriptive statistics were calculated.
6. Visualizations created to understand the distribution of the data, and to visualize relatoinships between key varriables.

DESCRIPTIVE STATISTICS

- **Runtime**:
  - Mean: 104.8 minutes
  - Range: 41 to 180 minutes
- **Production Budget**:
  - Mean: $39 million
  - Range: $9,000 to $410.6 million
- **Domestic Gross**:
  - Mean: $48.3 million
  - Range: $0 to $700 million
- **Worldwide Gross**:
  - Mean: $119 million
  - Range: $0 to $2.048 billion
- **Profit**:
  - Mean: $80 million
  - Range: –$110.5 million to $1.748 billion
- **Average Rating**:
  - Mean: 6.19
  - Range: 2 to 8.9

MOVIE PROFIT TRENDS

Average Movie Profit Trends Over the Years
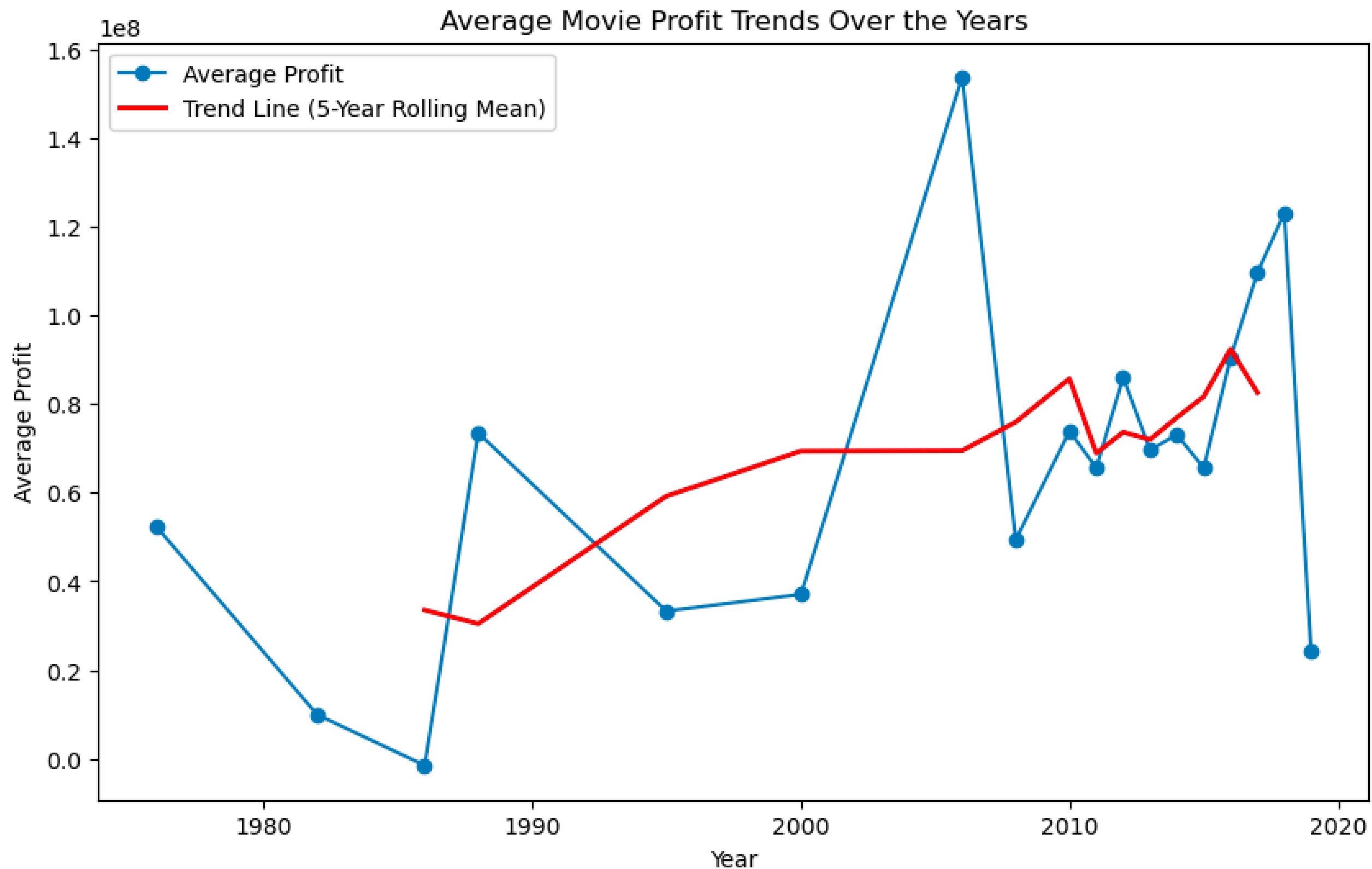
- The overall trend shows significant growth in average movie profits over the years, with peaks and troughs influenced by various factors.

- The 5-year rolling mean trend line smooths out short-term fluctuations and highlights the long-term upward trend in profitability.
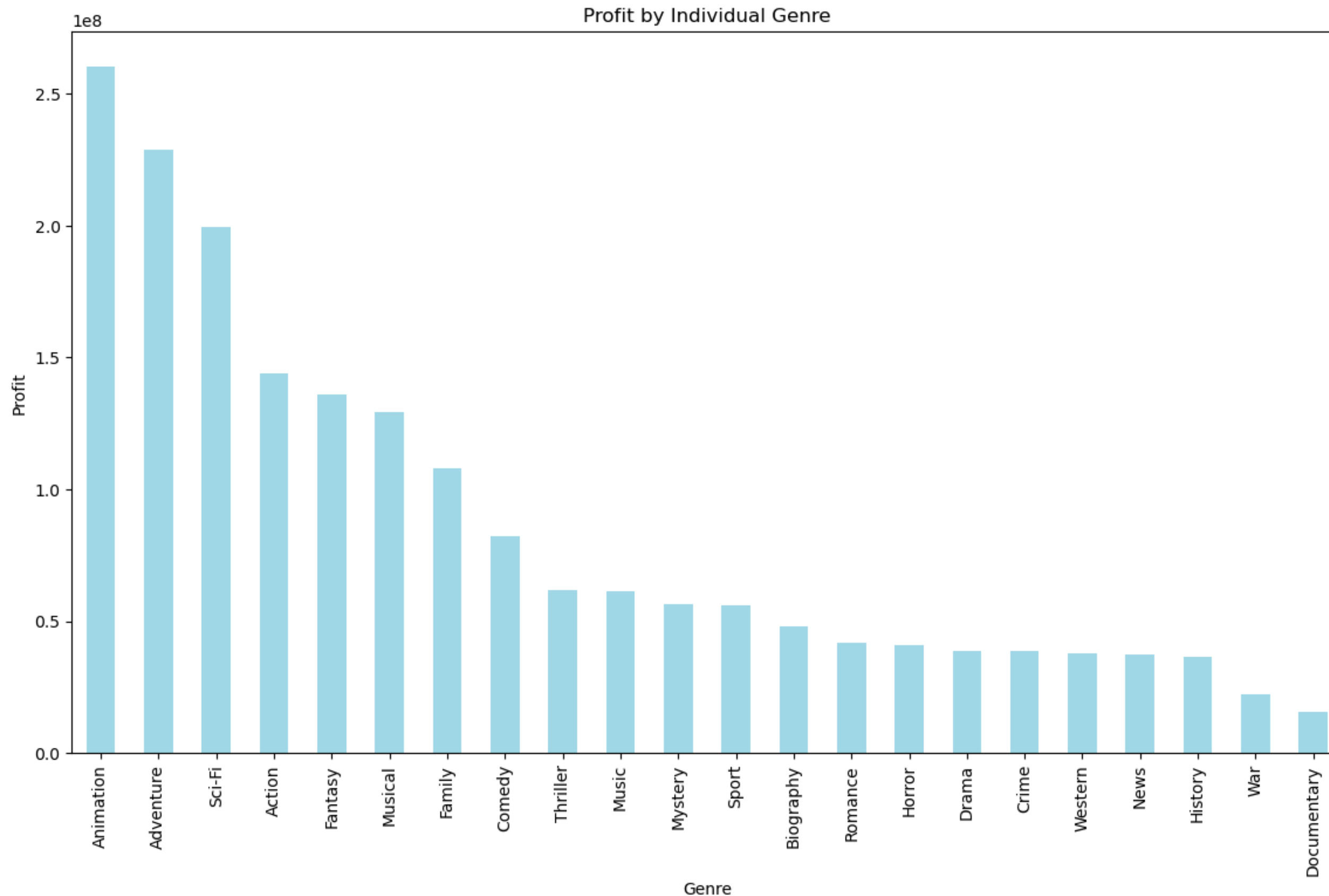
MOVIE RUNTIME VS PROFIT

Runtime vs. Profit
Correlation index: 0.29
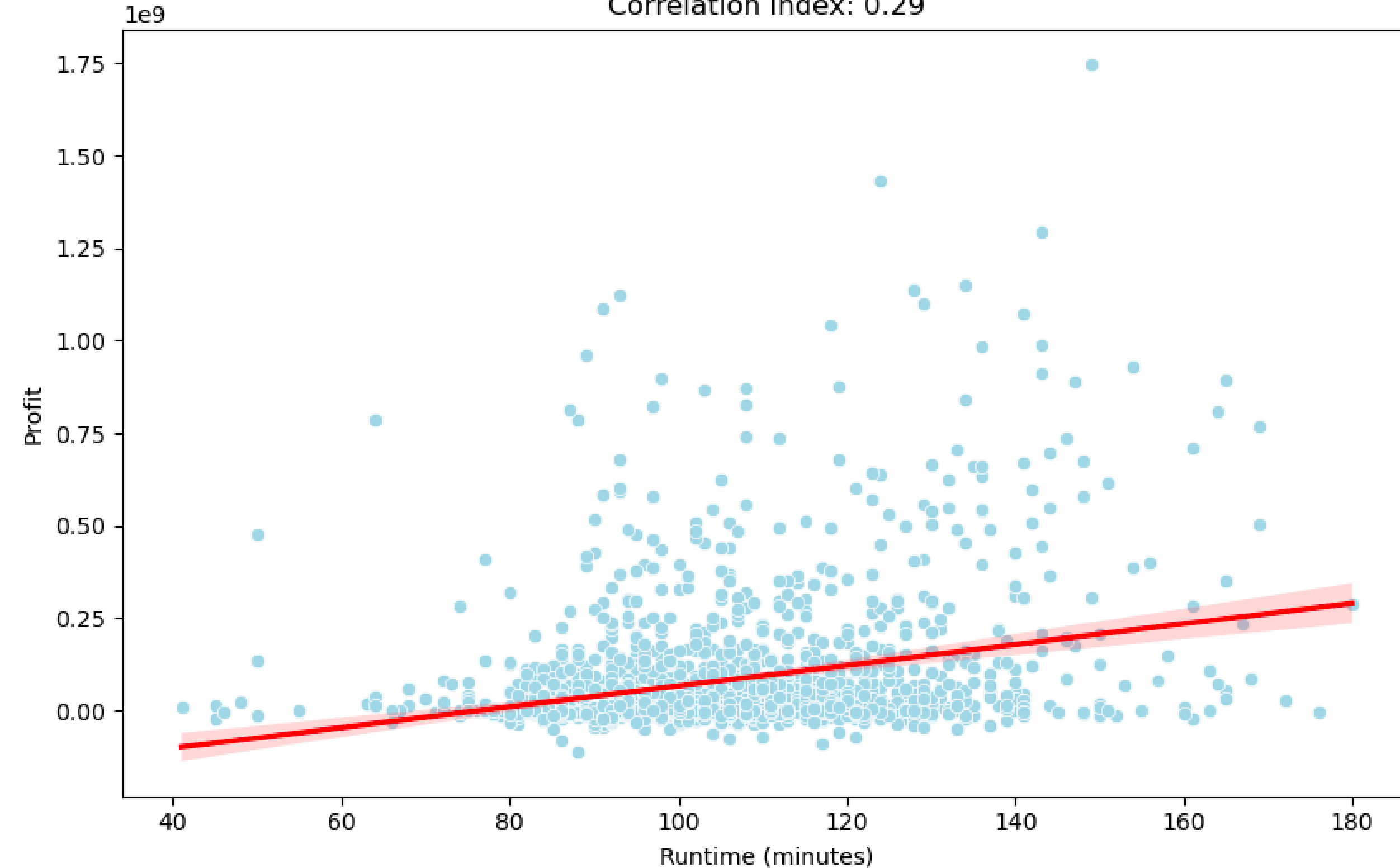
- The positive correlation suggests that investing in longer movies might be beneficial.

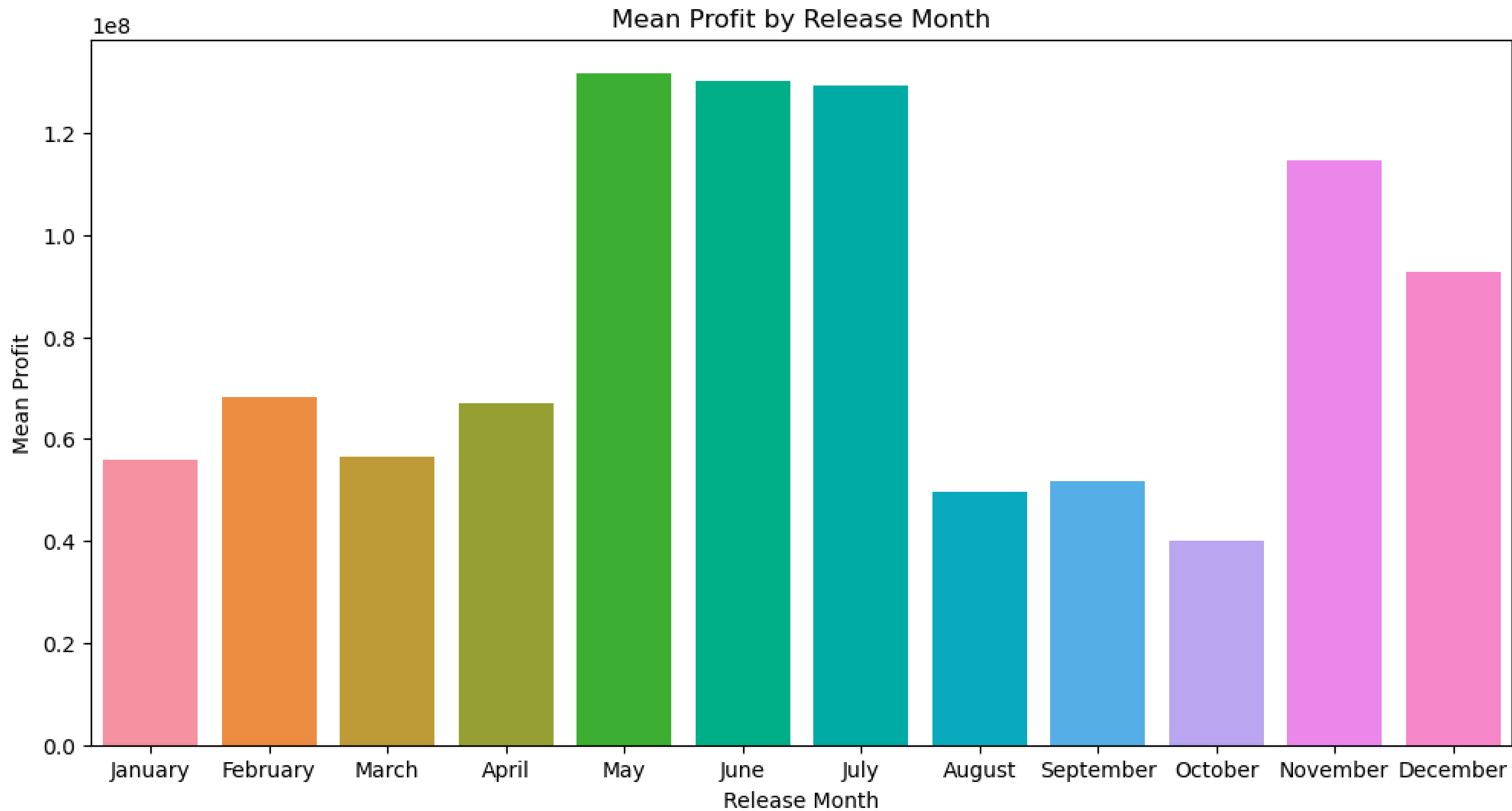- However, runtime alone is not a strong predictor of profit.

MOVIE GENRES VS PROFIT

Profit by Individual Genre

- Genres like Animation, Adventure, and Sci–Fi show high mean profits.

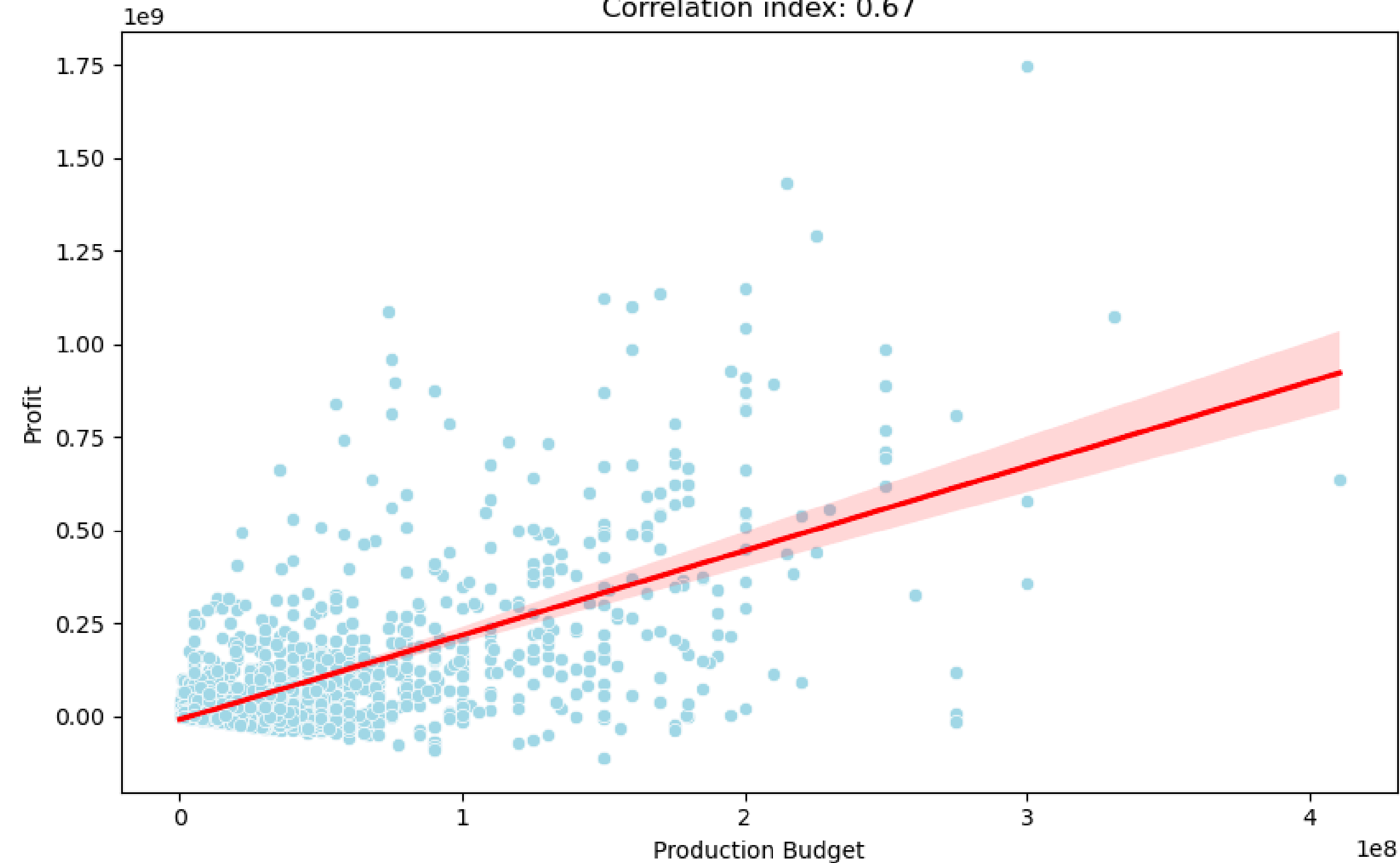- Investing in movies within these genres can be financially rewarding.

MOVIE RELEASE MONTH VS PROFIT

Mean Profit by Release Month
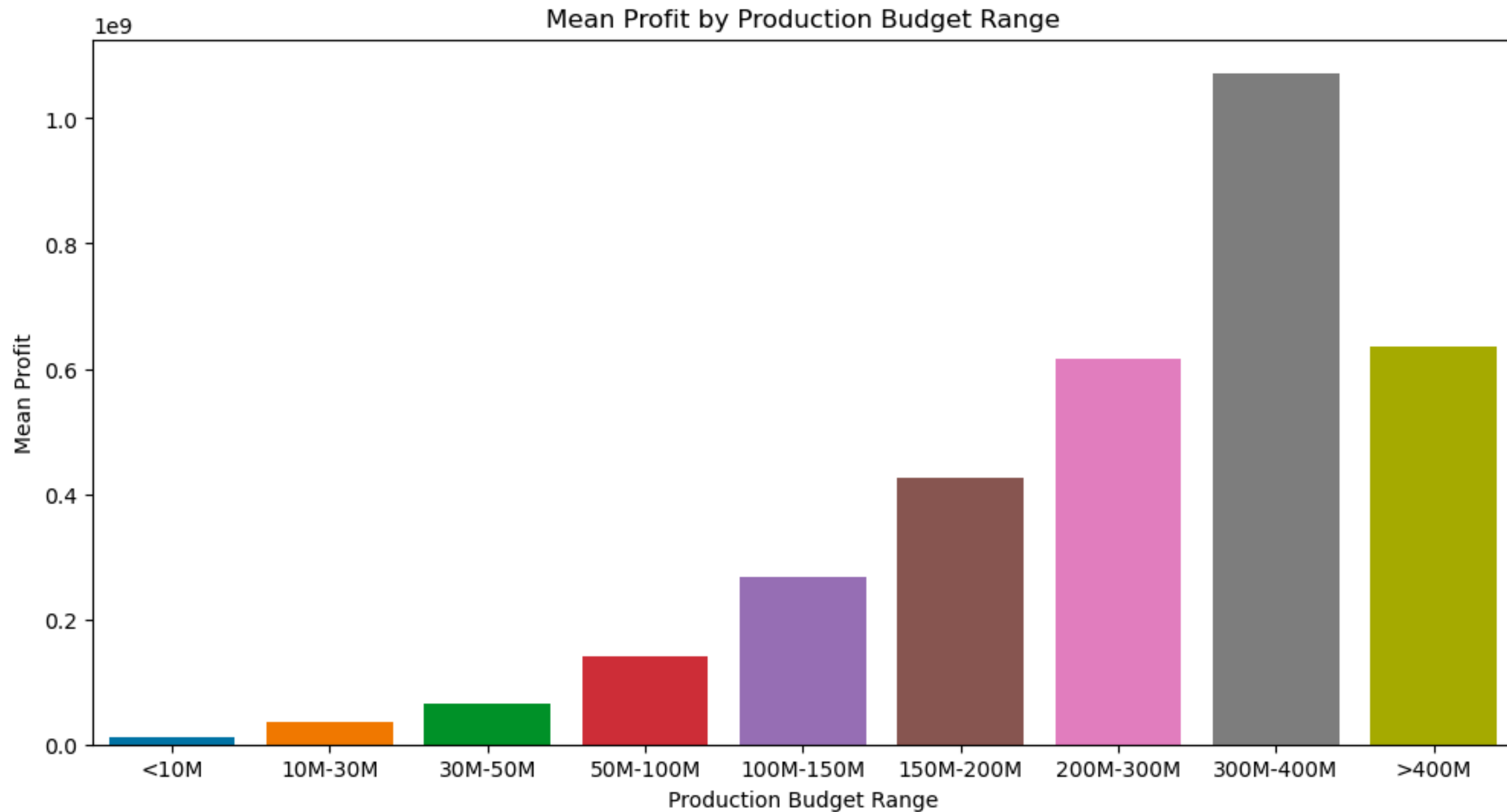
MOVIE PRODUCTION BUDGET VS PROFIT

Production Budget vs. Profit
Correlation index: 0.67

- The strong positive correlation suggests that higher production budgets are generally associated with higher profits.
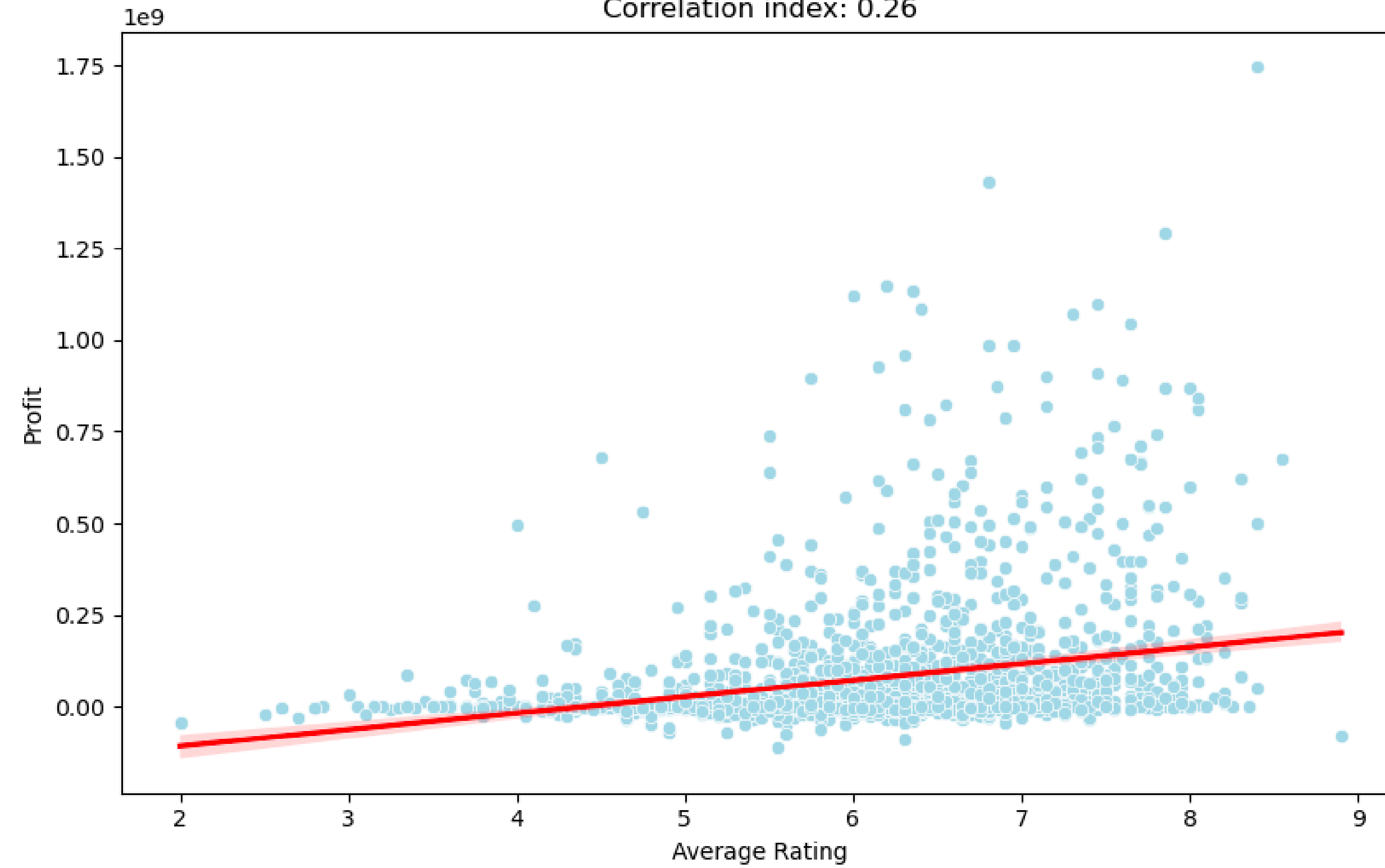
MOVIE PRODUCTION BUDGET VS PROFIT

Mean Profit by Production Budget Range

- The optimal budget range to maximize profits appears to be $300M–$400M.

MOVIE RATINGS VS PROFIT

Average Rating vs. Profit
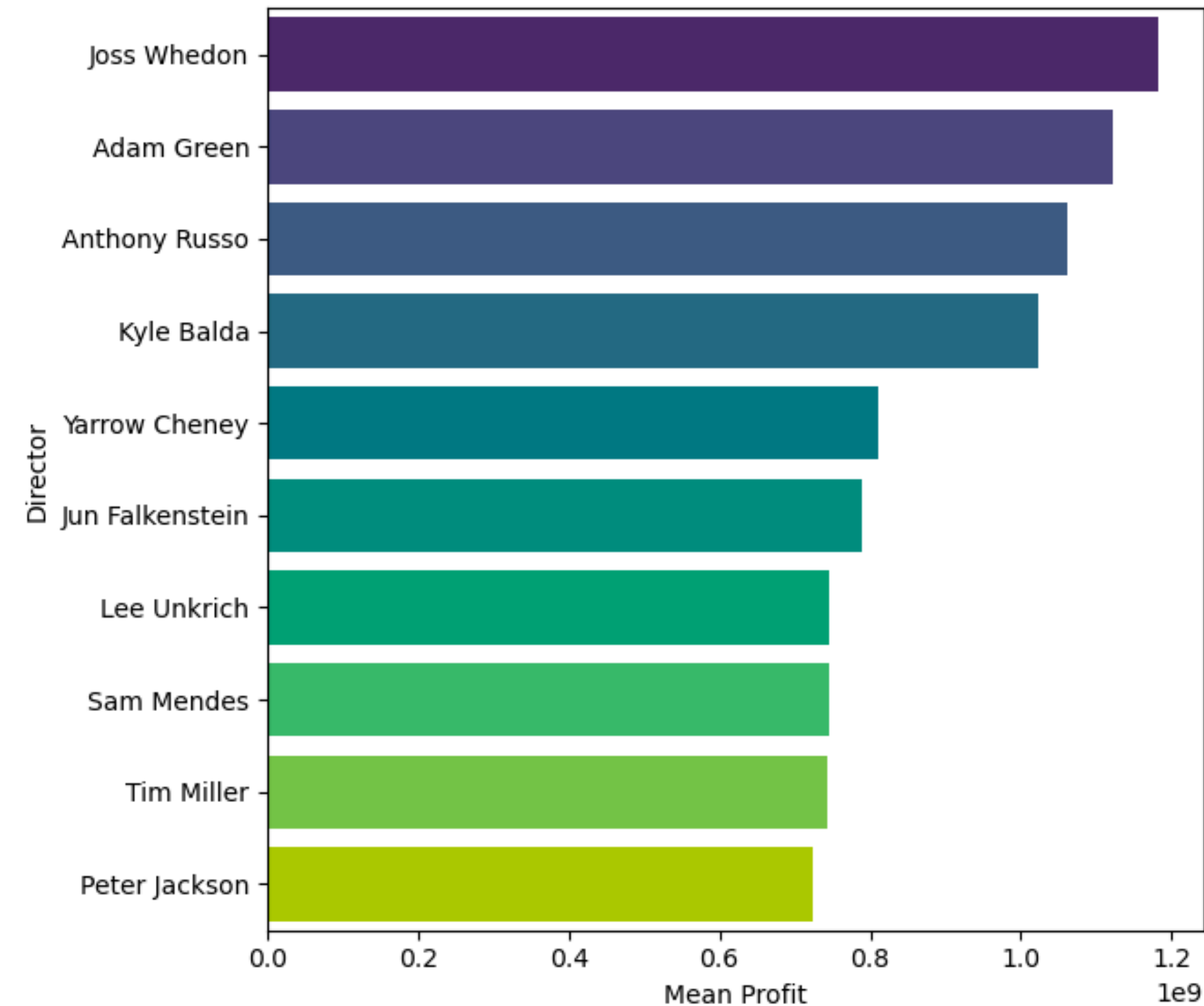Correlation index: 0.26

- Higher–rated movies appear to be more profitable.

- The relatively weak correlation suggests that other factors also significantly impact profitability.
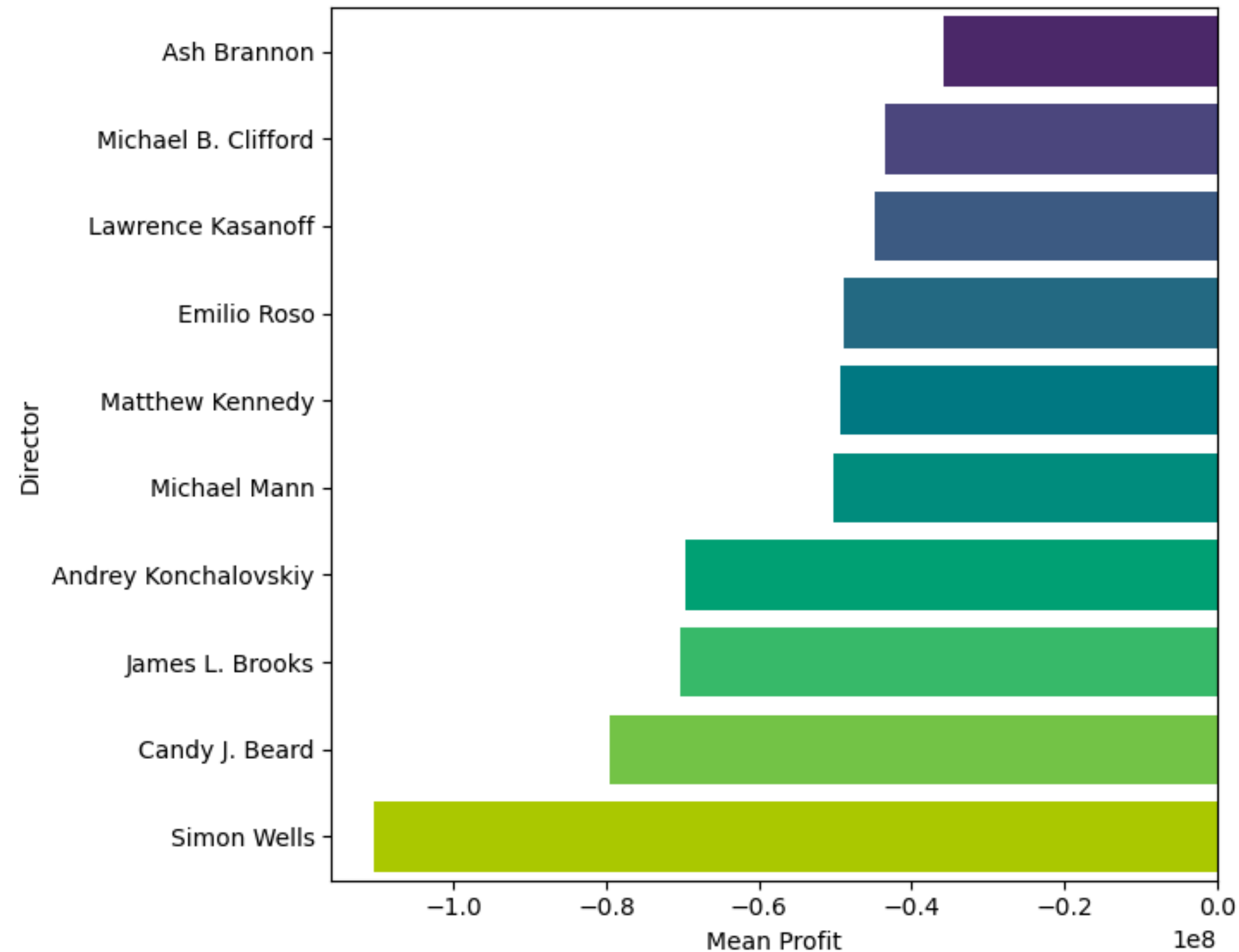
MOVIE DIRECTORS VS PROFIT

Top 10 Directors by Mean Profit

Bottom 10 Directors by Mean Profit

RECOMMENDATIONS

- **Focus on High-Performing Genres:**
  - Invest in Animation, Adventure, and Sci-Fi genres to maximize profitability.
- **Strategic Release Timing:**
  - Release major films in peak months: May, June, July, November, and December.
- **Optimal Production Budgets:**
  - Allocate higher budgets ($100M-$400M) for potential blockbusters.
  - Balance investments in mid-range budgets ($100M-$200M).
- **Leverage High-Rating Factors:**
  - Ensure high production quality, compelling storytelling, and strong performances.
- **Director and Talent Strategy:**
  - Collaborate with top directors.
- **Monitor Market Trends and Audience Preferences:**
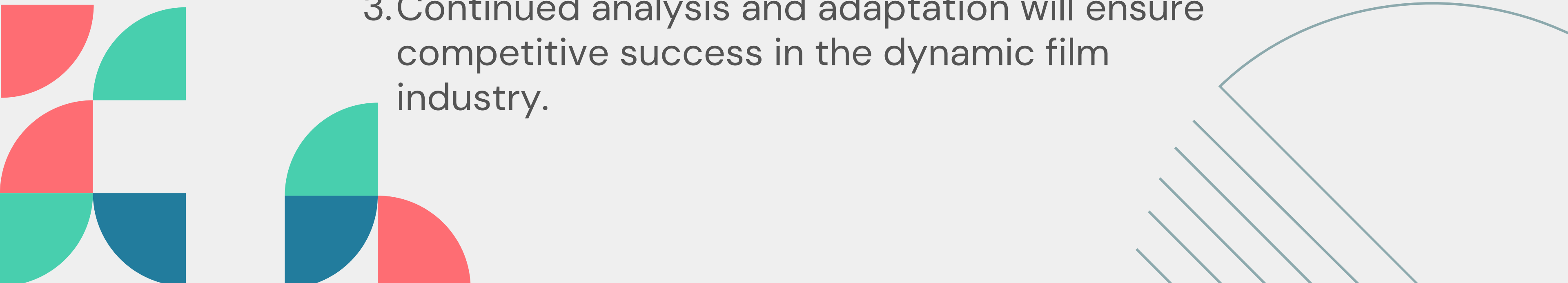 - Stay agile with market trends and audience feedback.

LIMITATIONS OF THE ANALYSIS

- **Data Variability:**
  - High variability in key metrics such as budgets and gross earnings.
- **Correlation vs. Causation:**
  - Correlations observed do not imply direct causation.
- **External Factors:**
  - Unaccounted external factors like economic conditions and competition.

CONCLUSIONS

1. Data-driven insights are crucial for strategic decision-making.
2. Recommendations based on analysis can optimize investments and maximize box office success.
3. Continued analysis and adaptation will ensure competitive success in the dynamic film industry.

THANK YOU

QUESTIONS ?