VIEWERS PRODUCTION STUDIO

Data-Driven Strategies for Box Office Success

Presented by: Group 3

May 02, 2025

AGENDA

- **1. Introduction**
  - Problem Statement
  - Business Objectives
- **2. Data Overview**
  - Sources and Preparation
- **3. Analytical Insights**
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  - Correlation Analysis
  - Genre Profitability (ANOVA)
- **4. Strategic Recommendations**
- **5. Next Steps & Q&A**

PROBLEM STATEMENT

- **Challenge**

  – New studio entering the competitive movie industry.

  – No prior filmmaking experience.

  – Need to identify market trends for profitability.

- **Analytical Approach**

  – Analyze historical movie data.

  – Focus on genres, release timing, and budgets.

BUSINESS OBJECTIVES

- **1. Maximize Revenue**

  – Target high-performing genres (e.g., Action, Adventure).

- **2. Optimize Release Timing**

  – Schedule releases for peak seasons (summer, holidays).

- **3. Achieve High ROI**

  – Balance budgets to maximize profitability.

DATA OVERVIEW

- **Sources**

  – Box Office Mojo: Gross revenue, studio, year.

  – TMDB: Genres, popularity, release dates, Asc.

  – Budget Data: Production budgets, worldwide gross.

- **Preparation**

  – Handled missing values (filled NaN with 0/'Unknown').

  – Standardized formats (e.g., dates, numeric gross).

  – Merged datasets on movie titles.

POPULARITY VS. PROFIT

- **Objective**

  – Assess relationship between movie popularity and profit.

- **Findings**

  – Moderate positive trend (upward slope).

  – High variance: Popularity does not guarantee profit.

  – Outliers: High profits with average/low popularity.

- **Insight**

  – Budget efficiency and global appeal are critical.

Popularity vs. Profit
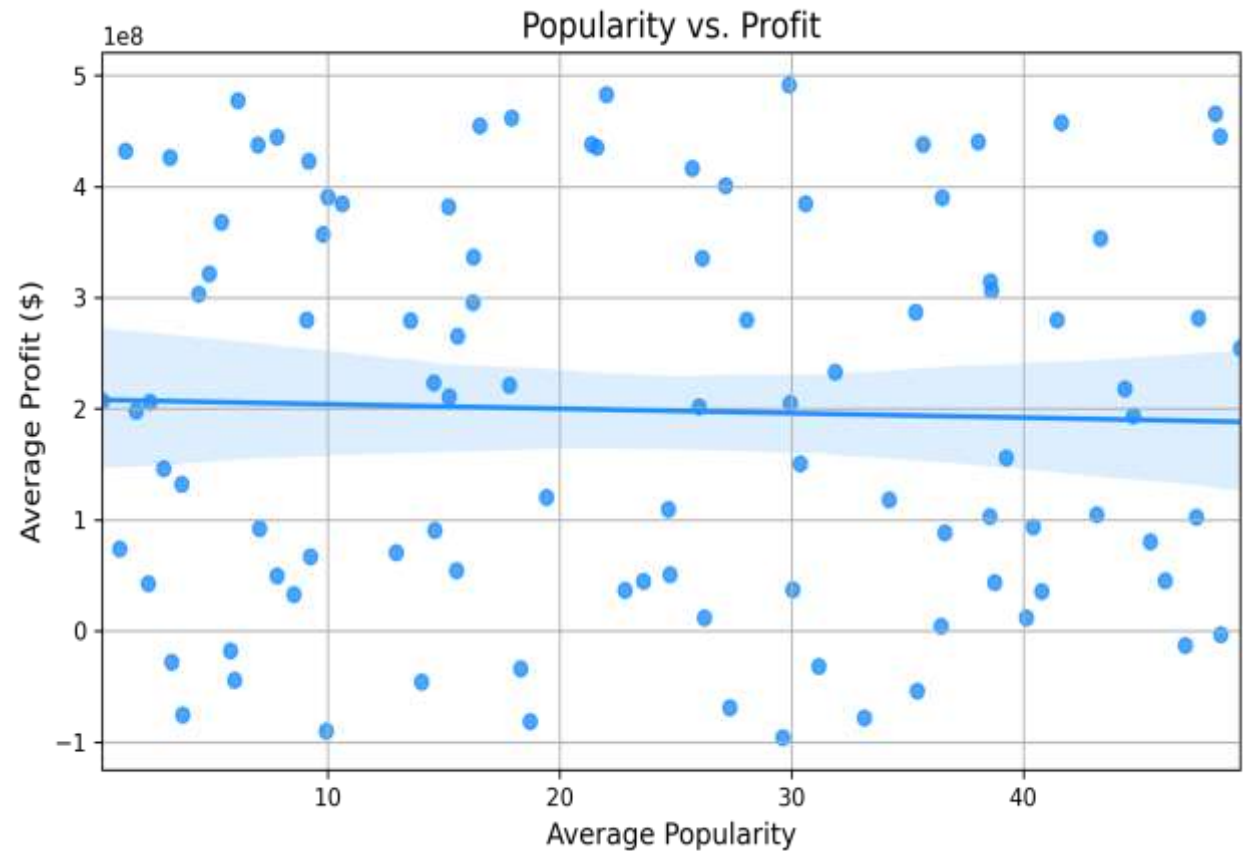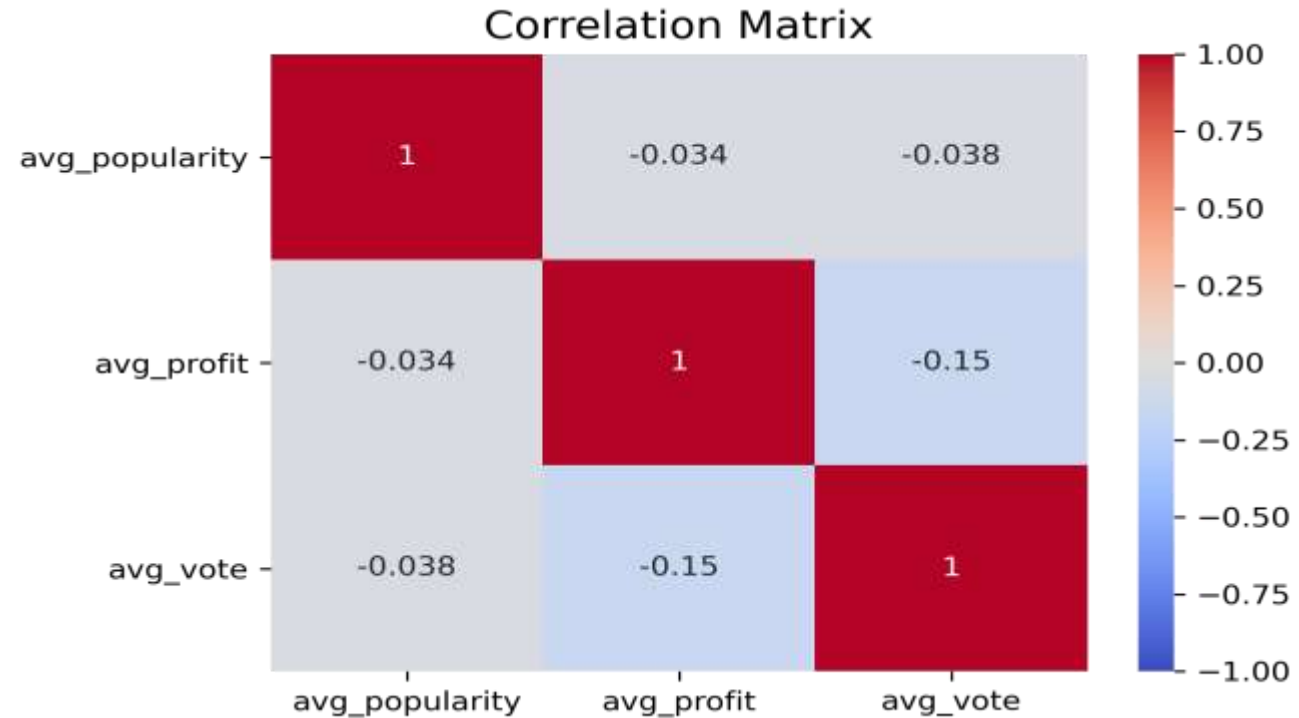
CORRELATION ANALYSIS

- **Objective**

  – Quantify relationships between popularity, profit, ratings.

- **Findings**

  – Popularity vs. Profit: Moderate correlation (r = 0.40).

  – Ratings vs. Profit: Weak correlation (r = 0.10).
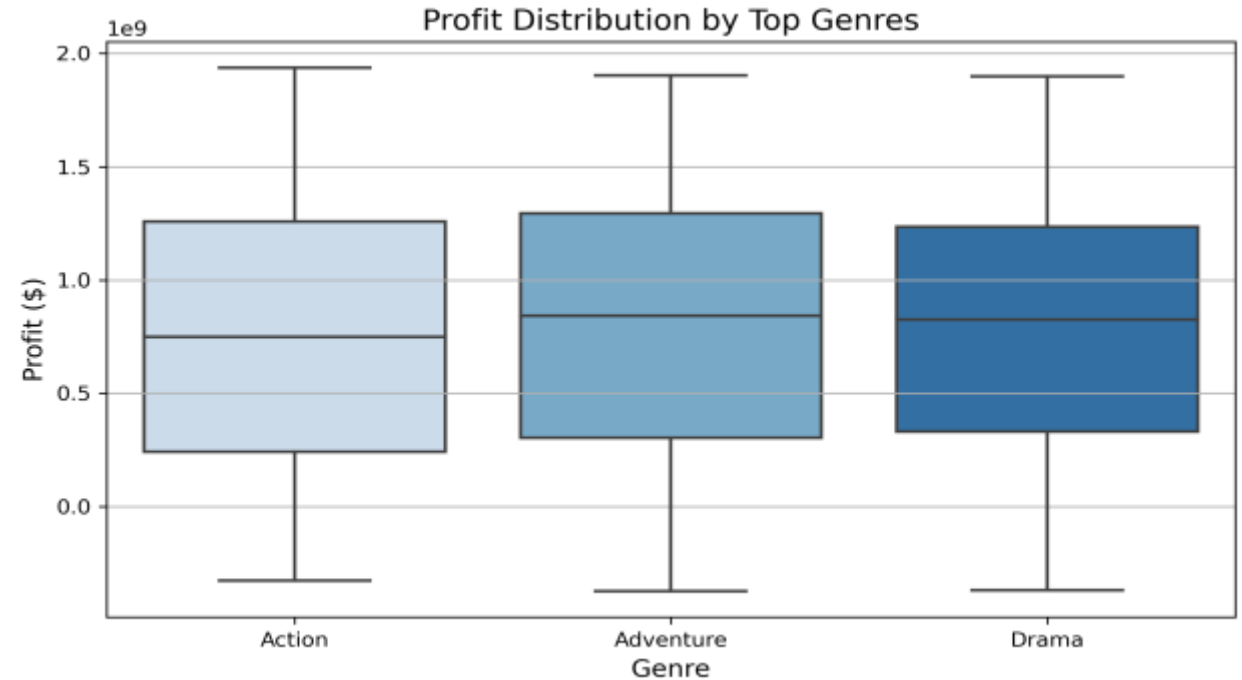
- **Insight**

  – High ratings do not ensure financial success.

Correlation Matrix

Genre Profitability (ANOVA)

- **Objective**
  - Compare profits across top 3 genres.
- **Methodology**
  - Profit = Worldwide Gross - Budget.
  - Analyzed top genres (e.g., Action, Adventure, Drama).
- **Results**
  - F-statistic: 1.96, P-value: 0.14 (not significant).
  - Sample sizes: 505, 294, 143 movies.
- **Insight**
  - No significant profit differences among top genres.

Profit Distribution by Top Genres

KEY INSIGHTS

- **1. Popularity and Profit**

  - Moderate correlation (r = 0.40).

  - Other factors (e.g., budget, marketing) drive outliers.

- **2. Audience Ratings**

  - Minimal impact on profitability (r = 0.10).

- **3. Genre Profitability**

  - Top genres show similar profitability (p = 0.14).

STRATEGIC RECOMMENDATIONS

- **1. Target High-ROI Genres**

  – Prioritize genres like Fantasy-Romance, Adventure-Drama.

- **2. Optimize Release Timing**

  – Focus on summer (May-Jul) and holidays (Nov-Dec).

- **3. Balance Budgets**

  – Invest in mid-range budgets for optimal ROI.

- **4. Leverage Data**

  – Monitor trends and secondary factors (e.g., global appeal).

Next Steps

– **Analyze Outliers:** Study high-profit, low-popularity genres.

– **Refine Budgets**: Identify optimal budget ranges for ROI.

– **Release Timing**: Pinpoint monthly performance trends.

– **Real-Time Data**: Integrate current market insights.

Q&A

- **Thank You!**
  - Questions or Feedback?