

Data-Driven Insights for Microsoft's Entry into Film Production

Exploratory Data Analysis and Business
Recommendations





The Business Problem

Microsoft wants to launch a movie studio but **lacks knowledge of what films succeed.**

Key question: *What types of movies should Microsoft produce to maximize box office revenue?*



CRISP-DM Approach

Business Understanding: Identify Microsoft's challenge.

Data Understanding: Collected box office, IMDb, and ratings data.

Data Preparation: Cleaned, merged, and engineered features (e.g., revenue, release season).

Analysis and Modeling: Explored genres, ratings, timing, and revenue trends.

Evaluations and Recommendations: Translate insights into actionable business strategy.



1. Finding Top Genres

Action, Adventure and Animation deliver the **highest average revenue**.

Drama and Comedy dominate in volume but generate **lower revenue per film**.



2. Best Release Timings

Summer (Q3): Peak revenue for Action/Adventure blockbusters.

Holiday (Q4): Strong performance for Family/Animation films.

Early-year releases underperform.



3. Ratings vs Revenue

Revenue is **more tied to popularity (audience votes)** than critical ratings.

Mid-rated blockbusters (6–8) outperform niche high-rated films.



Recommendations

Invest in Action/Adventure blockbusters for summer releases.

Target Family/Animation for the holiday season.

Focus on **mass appeal** over niche, high-critical acclaim films.



Limitations and Next Steps

Missing exact release dates (Genre trends depends on seasons).

No budget or ROI data (future work: profitability modeling).

Focuses on particular geographic area—global box office patterns may differ.



In conclusion, Microsoft should invest in Action-packed summer blockbusters and heartwarming holiday family films. And if all else fails—just hire Marvel’s scriptwriters, release it in July, and watch the revenue roll in !