

FILM INDUSTRY ANALYSIS

*PRESENTATION
BY GROUP 2.
DSFT-H12*



BUSINESS CONTEXT

- The movie industry is a dynamic and highly competitive space, where studios must carefully choose which films to produce to maximize profitability.
 - ***Client:*** A company strategizing to enter the film production sector.
- **Project Objective:** To support the company in making data-driven decisions for its new movie studio.
 - ***Target variable:*** profitability = worldwide gross – production budget
 - ***Predictor variables:*** genre, release season, production budget, and star power (directors & actors).

DATA

Datasets

- ***bom.movie_gross.csv.gz***: Contains data on movie titles, domestic & foreign gross revenue, studio, and year of release.
- ***tn.movie_budgets.csv.gz***: Contains data on release dates, movie titles, production budgets, domestic & worldwide gross revenue.
- ***im.db.zip***: Contains the movie_basics, movie_ratings, principals, persons, directors, and the writers tables.



PROCESS STEPS

- 1. Exploratory Data Analysis (EDA)** – Examine dataset attributes.
- 2. Data Cleaning:** Handle missing values, drop outliers, and remove duplicate entries.
- 3. Data Merging:** Merge datasets to create a comprehensive DataFrame.
- 4. Feature Engineering:** Enrich the comprehensive DataFrame with actionable attributes of interest per the project's scope.
- 5. Data Analysis:** Formulate Hypotheses, test validity, and plot visualizations.
- 6. Recommendations:** Deduce business recommendations based on findings.
- 7. Next Steps:** Propose actionable objectives beyond the project's scope.



Results

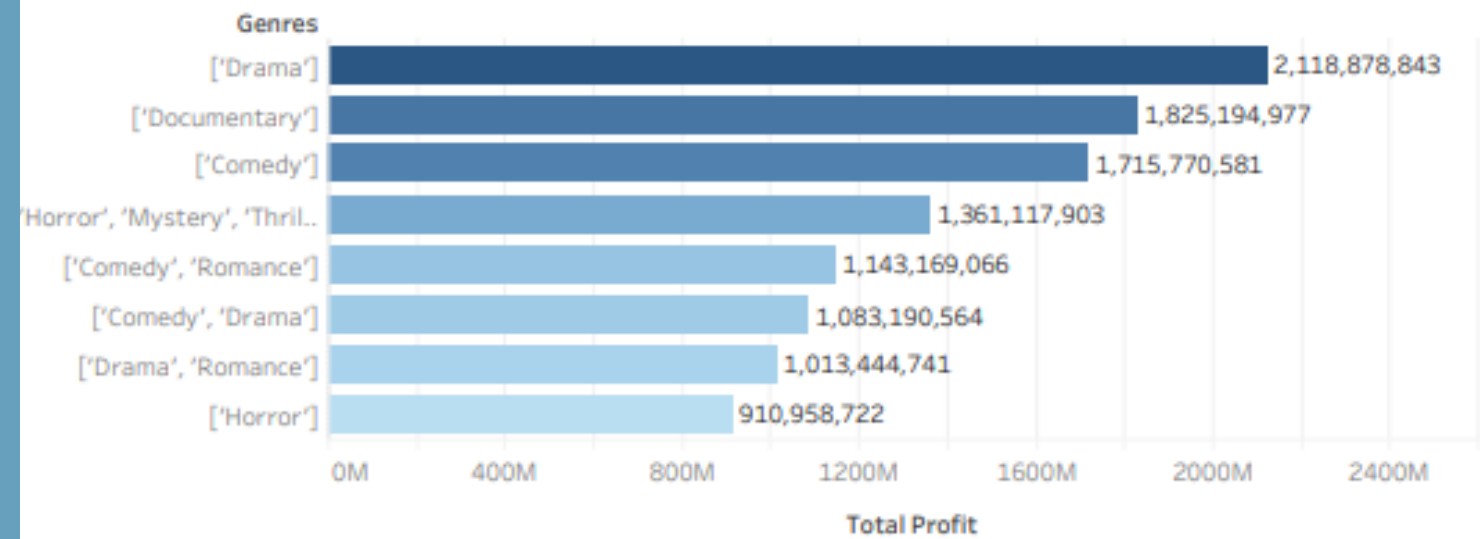
- **One-way ANOVA:** Genre has a statistically significant influence on a movie's profitability.
- **One-way ANOVA:** The season a movie is released doesn't have statistically significant influence on profitability.
- **Pearson Correlation:** There isn't a statistically significant linear relationship between a movie's production budget and profitability.
- **Chi-square statistic:** A movie's profitability is dependent on the involvement of top-performing talent (directors and actors).



VISUALIZATIONS

Factors Contributing to Film Success

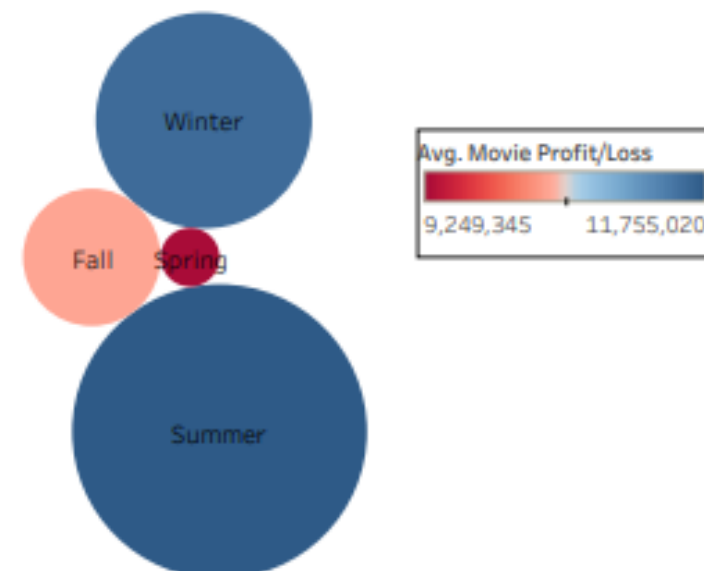
Genre Profitability Analysis



Star Power and Profitability



Movie Profits Across Seasons



BEST FILM DIRECTORS IN THE INDUSTRY



Business Recommendations

- i. Invest in Profitable Genres:** Prioritize the production of top-performing genres: Drama, Documentary, Comedy, Horror, Mystery, Thriller, and Romance.
- ii. Balance Star Power Wisely:** Contract high-performing actors and directors; but, negotiate strategically to minimize budget overshoots.
- iii. Plan Release Dates Strategically:** Schedule major film releases in Summer to maximize audience turnout and optimize Box Office grossing.

Next Steps

- Conduct case studies on top-performing studio based on highest grossing movies in Box Office revenue.
- Initialize and diversify professional networks with top-performing actors and directors.
- Launch talent search operations to identify actors with substantial acting potential.
- Conduct extensive research on latest technologies (hardware and software) in film production.





THANK YOU

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