PHASE 1 PROJECT

ELIZABETH NYAMBURA

Project Overview

For this project, the Exploratory Data Analysis method was used to generate insights for a business stakeholder.

Business Problem

Microsoft sees all the big companies creating original video content and they want to get in on the fun. They have decided to create a new movie studio, but they don't know anything about creating movies. You are charged with exploring what types of films are currently doing the best at the box office. You must then translate those findings into actionable insights that the head of Microsoft's new movie studio can use to help decide what type of films to create.

The Data

The below datasets were used for analysis:

1.imdb.title.basics

2.imdb.title.ratings

3.bom.movie_gross

Data Analysis

The analysis was carried out in five categories as follows:

1. Relationship between genres and total gross income

2. Relationship between Genres and Studio

3. Relationship between movie Genres and the average rating

4. Relationship between the average rating and the gross income

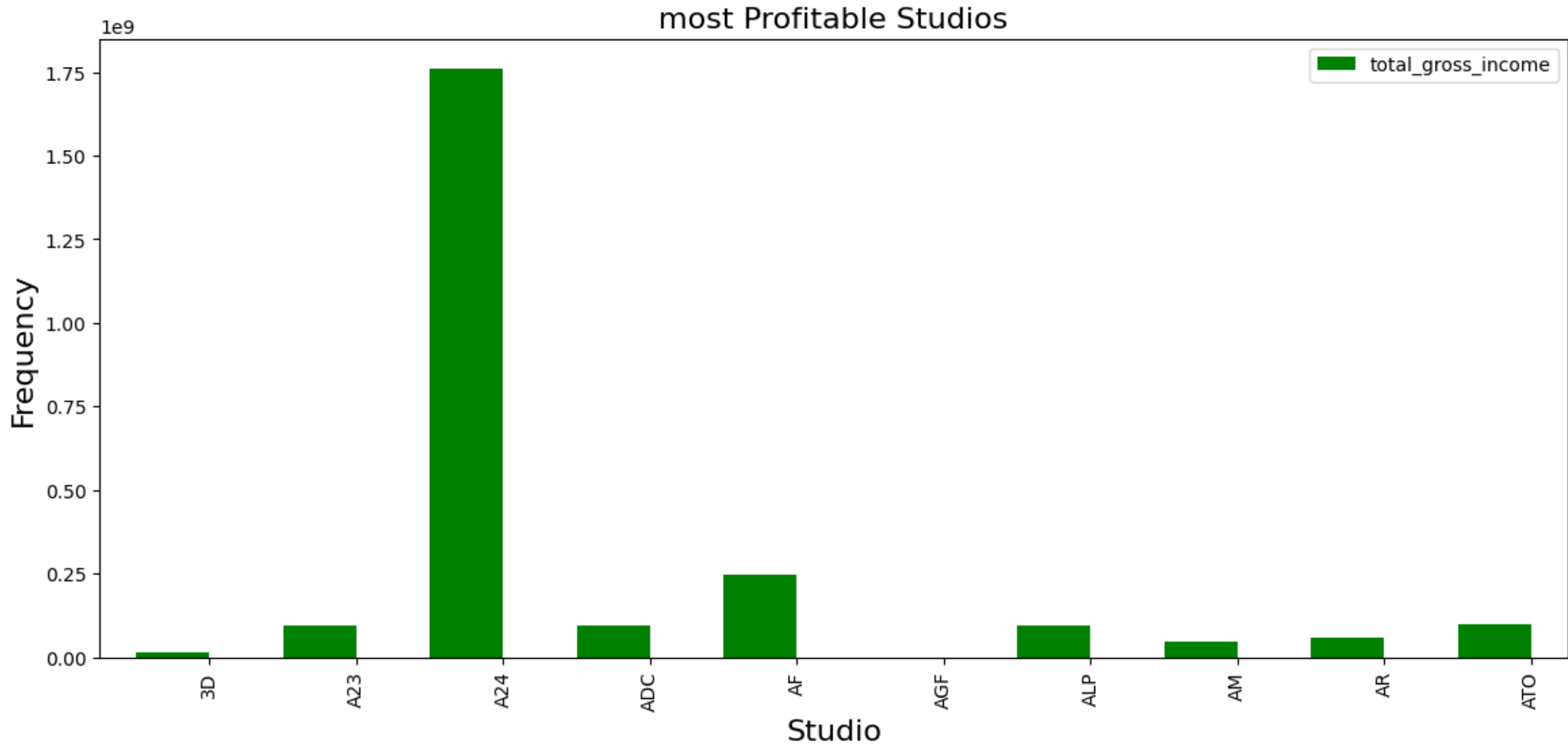5. Relationship between Gross income and start year

1. Relationship between genres and total gross income

As per the below graph, Action , adventure fantasy have the highest gross income while Action, and Adventure Biography have the least gross income.
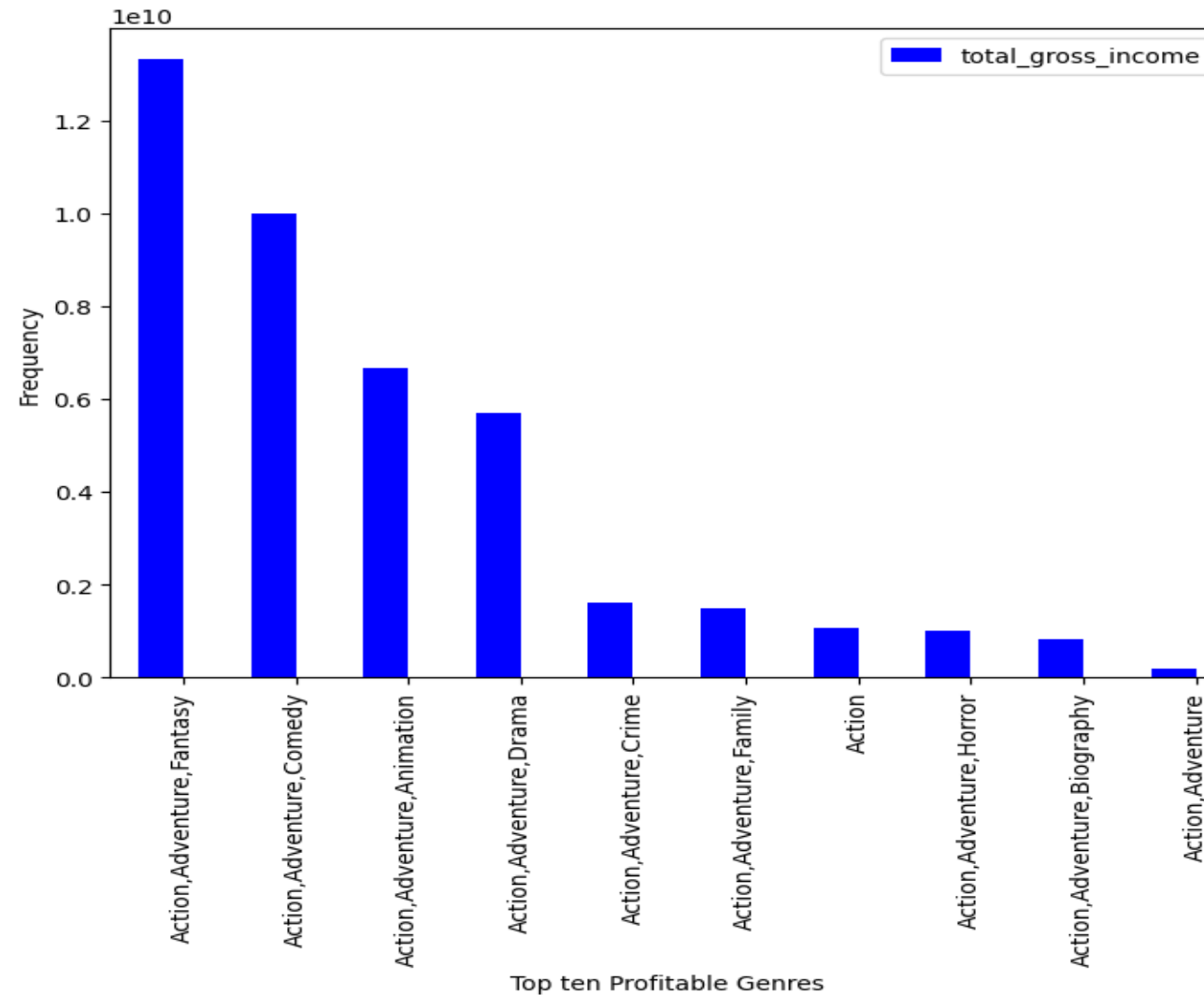
Relationship between Genres and Studio

As per the below graph, A24 studio has the highest returns in terms of total gross income while 3D studio and AGF studio have the least and no returns respectively. It is therefore advisable for Microsoft to invest in the A24 studio

Relationship between movie Genres and the average rating

As per the below analysis, Adventure, action, Sport and Adventure, and Drama, Sci-Fi
have the highest ratings while Documentary, Sport have the lowest rating

Adventure 9.2 Action, Sport 8.4 Adventure, Drama, Sci-Fi 8.3
Biography, Documentary, Family 8.3 Documentary, Sport 8.2

Average rating by genre
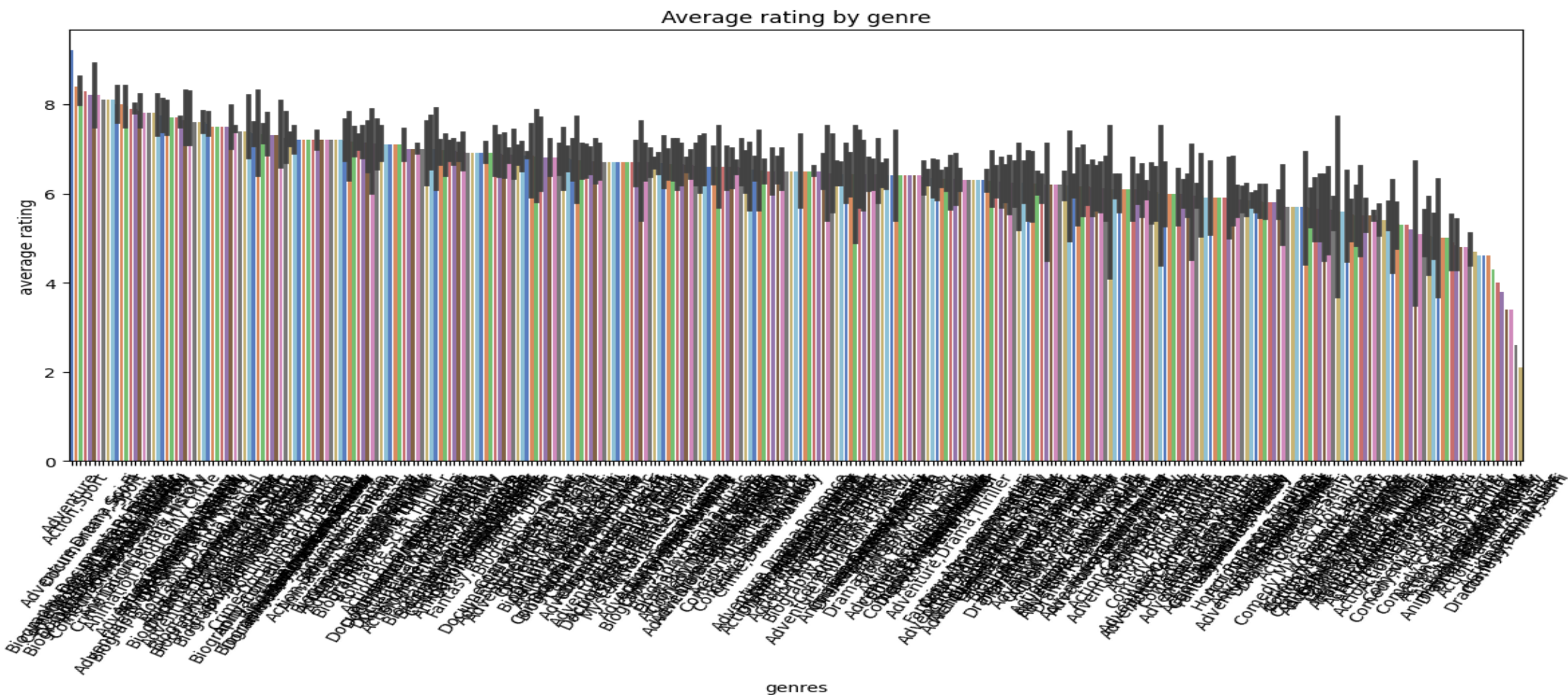
4. Relationship between the average rating and the gross income

As per the below analysis, there is no clear relationship between average rating and total gross rating and therefore this relationship should not be used for decision-making on the business investment

total gross vs average rating
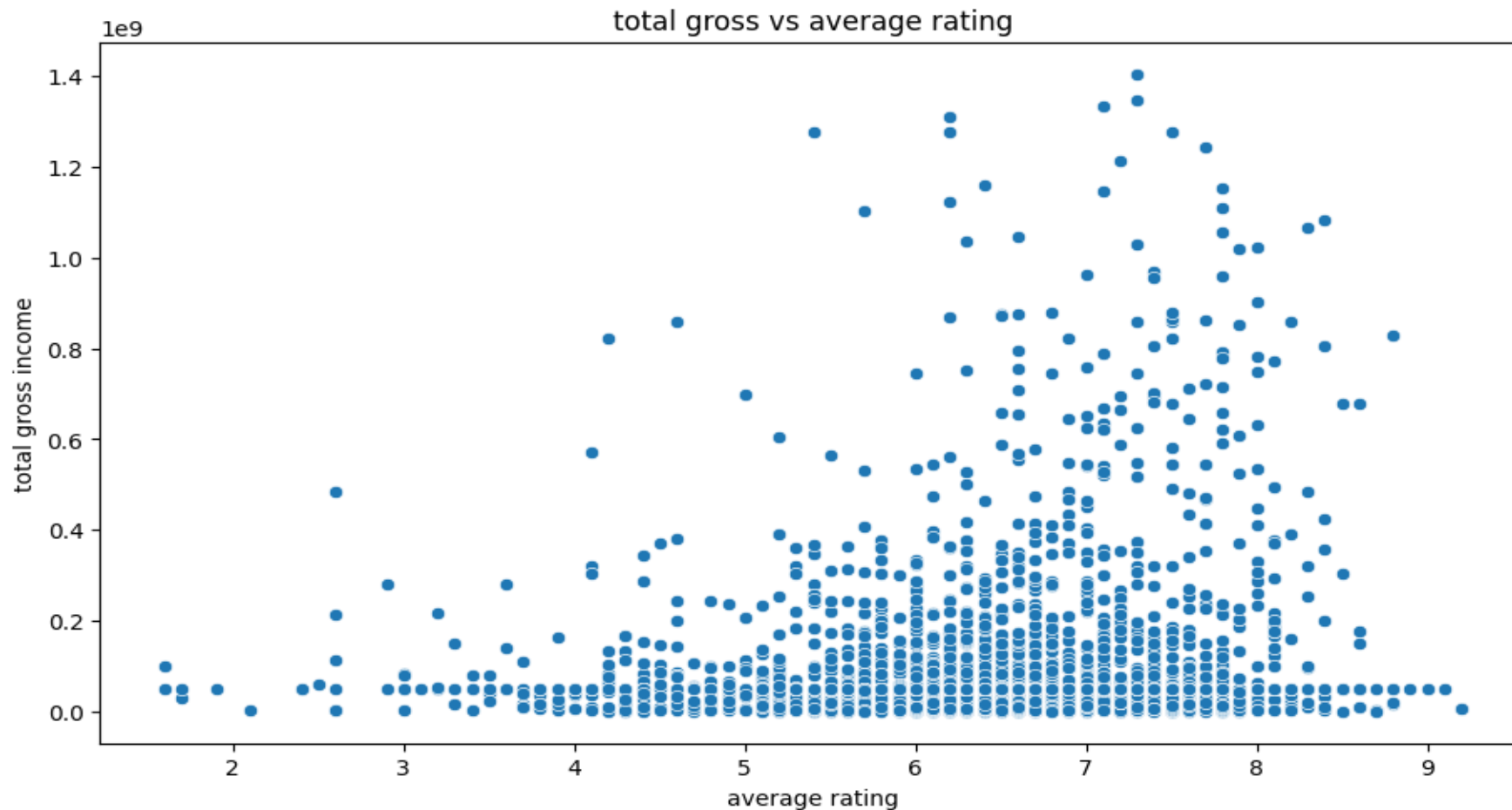
5. Relationship between Gross income and start year

As per the below analysis, the foreign gross income is constantly higher than the domestic gross income throughout the years when a movie is released. Movies that were released in 2018 had the highest foreign gross and domestic gross income. The gross incomes then drastically dropped to their lowest for movies that were released in 2019.

total_gross_income by start year
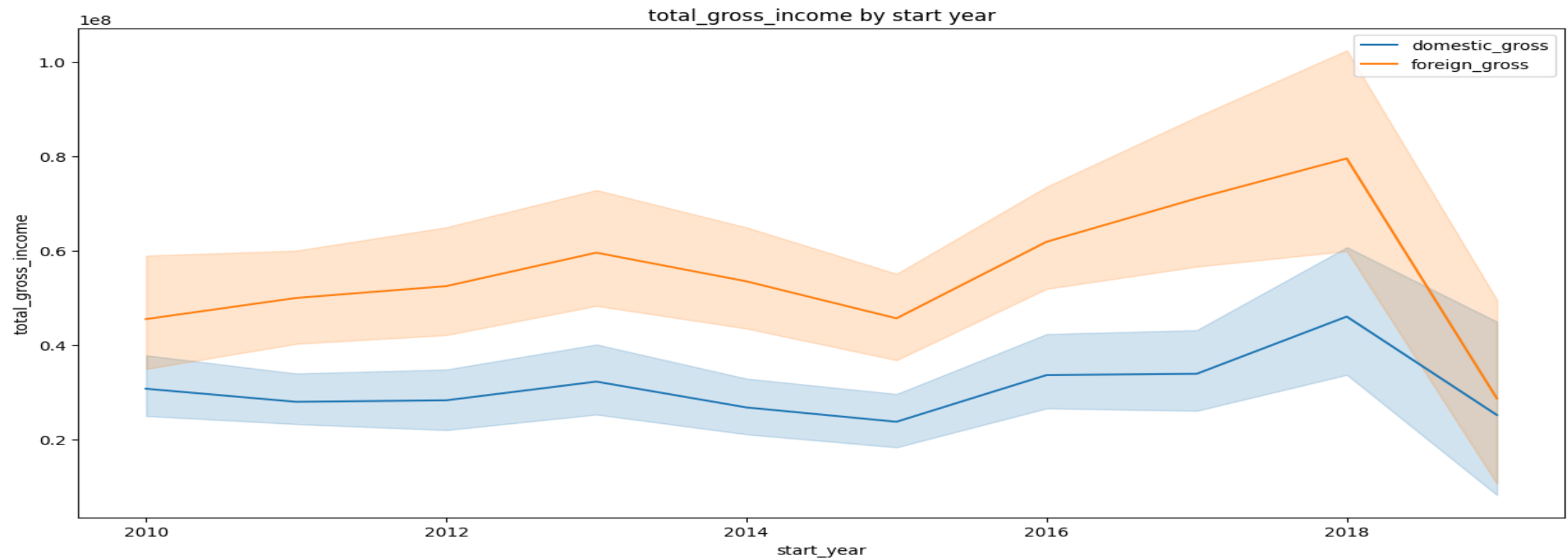
Conclusion

Action-adventure-Fantasy genres have the highest gross income while Action-Adventure - Biography have the least gross income. Therefore, it would be advisable for Microsoft to invest in Action-Adventure-Fantasy Genres. A24 studio has the highest returns in terms of total gross income and therefore, it is advisable for Microsoft to invest in the A24 studio. Adventure-Action-Sport genres and Adventure-Drama-Sci-Fi have the highest average ratings while Documentary-Sport has the lowest average ratings. However, there is no clear relationship between average rating and total gross rating and therefore this relationship should not be used for decision making on business investment. The foreign gross income is constantly higher than the domestic gross income throughout the years when a movie is released. Hence, Microsoft should focus more on exploring the international markets and producing movies with more focus on international interests.

Recommendations

Further market study is necessary to ascertain the optimal timing for releasing a movie of a particular genre. Determining whether the total gross income of a genre experiences proportional growth with increased budgets for production, development, marketing, and advertising is crucial in profit prediction based on the budget. In addition to box office earnings, studios generate revenue from various sources such as home entertainment sales and rentals, television rights, product placement fees, and streaming services. Collecting data on these revenue streams and comparing them to theatrical earnings is essential for a comprehensive financial analysis and decision-making for investment purposes.