Rockbuster Stealth Data Analysis

Presented by: Mercy Tsekiri

Date:31th May, 2022
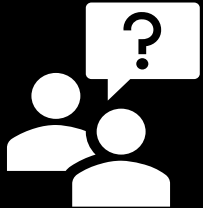
Objective

This presentation is intended to provide insights that will help launch the new online video rental service.

Key Business Questions

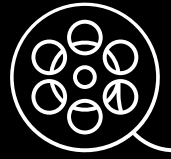Which movies contributed the most/least to revenue gain?

What was the average rental duration for all videos?

Which countries are Rockbuster customers based in?

Where are customers with a high lifetime value based?

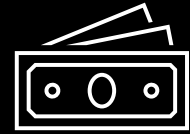Do sales figures vary between geographic regions?

Key Metrics

No. of films
1000

No. of customers
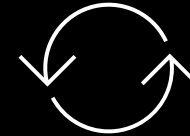599

No. of orders
14,596

Total revenue
$61,312

Duration of sales
10 months

Film language
English

Repeat purchase rate
100%

Popular rating
PG-13

Data Overview

Min rental duration	Max rental duration	Average rental duration	Max rental rate
3	7	5	0.99

Max rental rate	Average rental duration	Min film length	Max film length
4.99	2.99	46	185

Average film length	Min replace-ment cost	Max replace-ment cost	Avg replace-ment cost
115	$9.99	$29.99	$19.98

Top ten movies(by revenue)
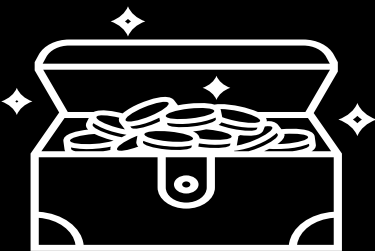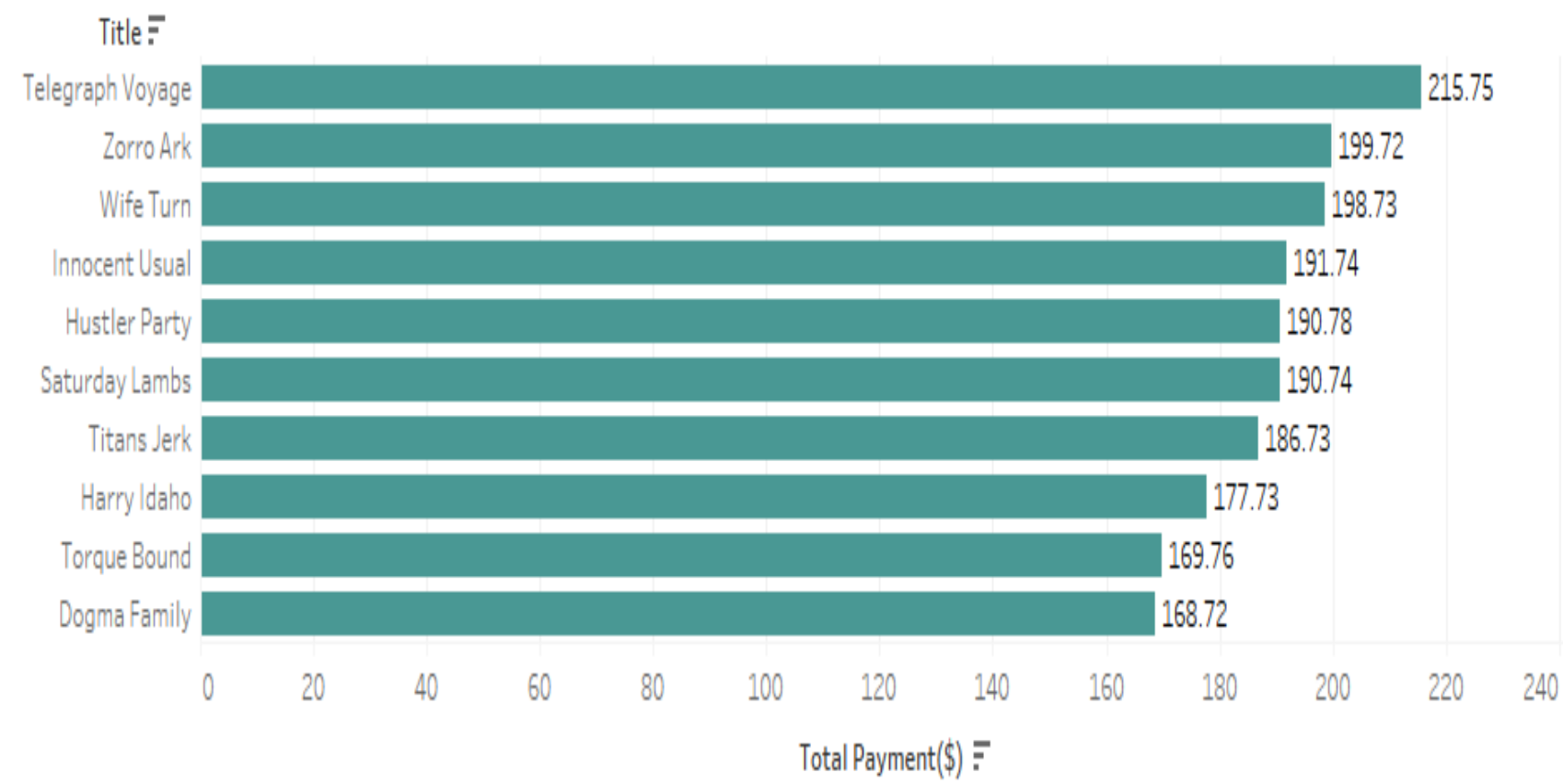
List of movies that did not generate any revenue

- Alice Fantasia
- Apollo Teen
- Argonauts Town
- Ark Ridgemont
- Arsenic Independence
- Boondock Ballroom
- Butch Panther
- Catch Amistad
- Chinatown Gladiator
- Chocolate Duck
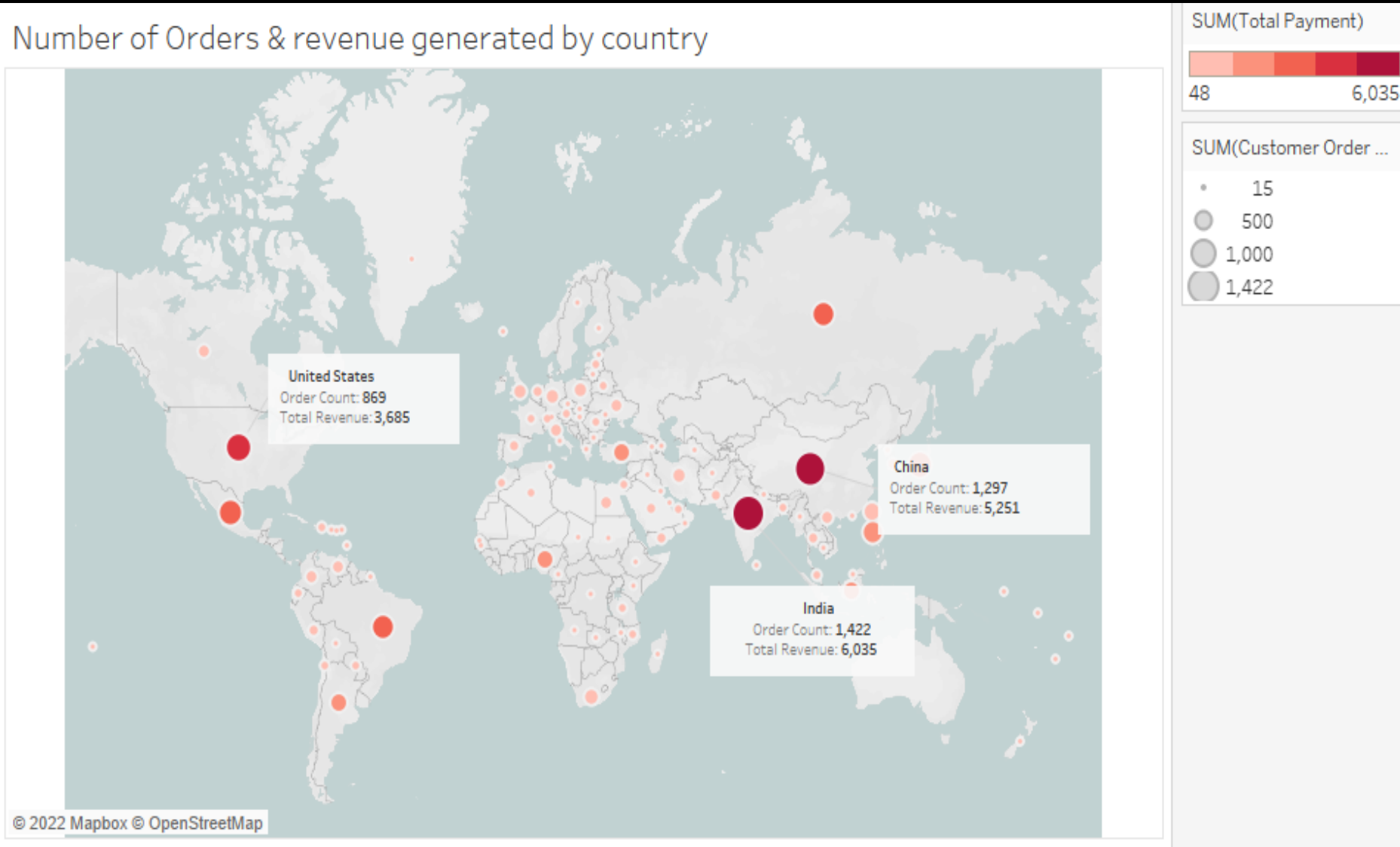- Commandments Express
- Crossing Divorce

- Crowds Telemark
- Crystal Breaking
- Dazed Punk
- Deliverance Mulholland
- Firehouse Vietnam
- Floats Garden
- Frankenstein Stranger
- Gladiator Westward
- Gump Date
- Hate Handicap
- Hocus Frida
- Kentuckian Giant
- Kill Brotherhood
- Muppet Mile
- Order Betrayed

- Pearl Destiny
- Perdition Fargo
- Psycho Shrunk
- Raiders Antitrust
- Rainbow Shock
- Roof Champion
- Sister Freddy
- Sky Miracle
- Suicides Silence
- Tadpole Park
- Treasure Command
- Villain Desperate
- Volume House
- Wake Jaws
- Walls Artist

42 movies were not rented hence did not generate any revenue. Further analysis would be done to determine why.

Number of orders & revenue generated by country

Number of Orders & revenue generated by country

SUM(Total Payment)

48 — 6,035

SUM(Customer Order ...)
- 15
- 500
- 1,000
- 1,422

United States
Order Count: 869
Total Revenue: 3,685

China
Order Count: 1,297
Total Revenue: 5,251

India
Order Count: 1,422
Total Revenue: 6,035

© 2022 Mapbox © OpenStreetMap

- Rockbuster's customers are located across **108** countries.

- The annotation on the map shows the top 3 countries with the highest customer orders and revenue.

- The size of the bubble represents the number of orders while the colour represents the revenue.

Location of Top Customers

These are the location of the top 3 customers that spent the most.

Tokat
$130.68
Turkey

Atlixco
$128.70
Mexico

Pontianak
$123.72
Indonesia

Revenue by region
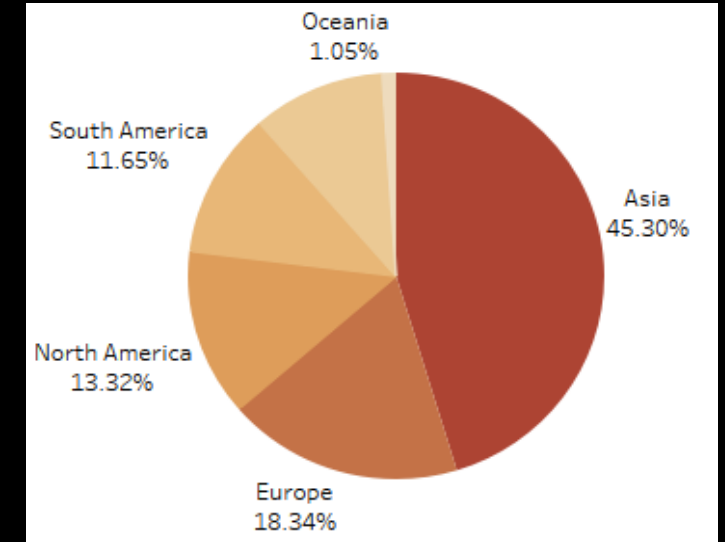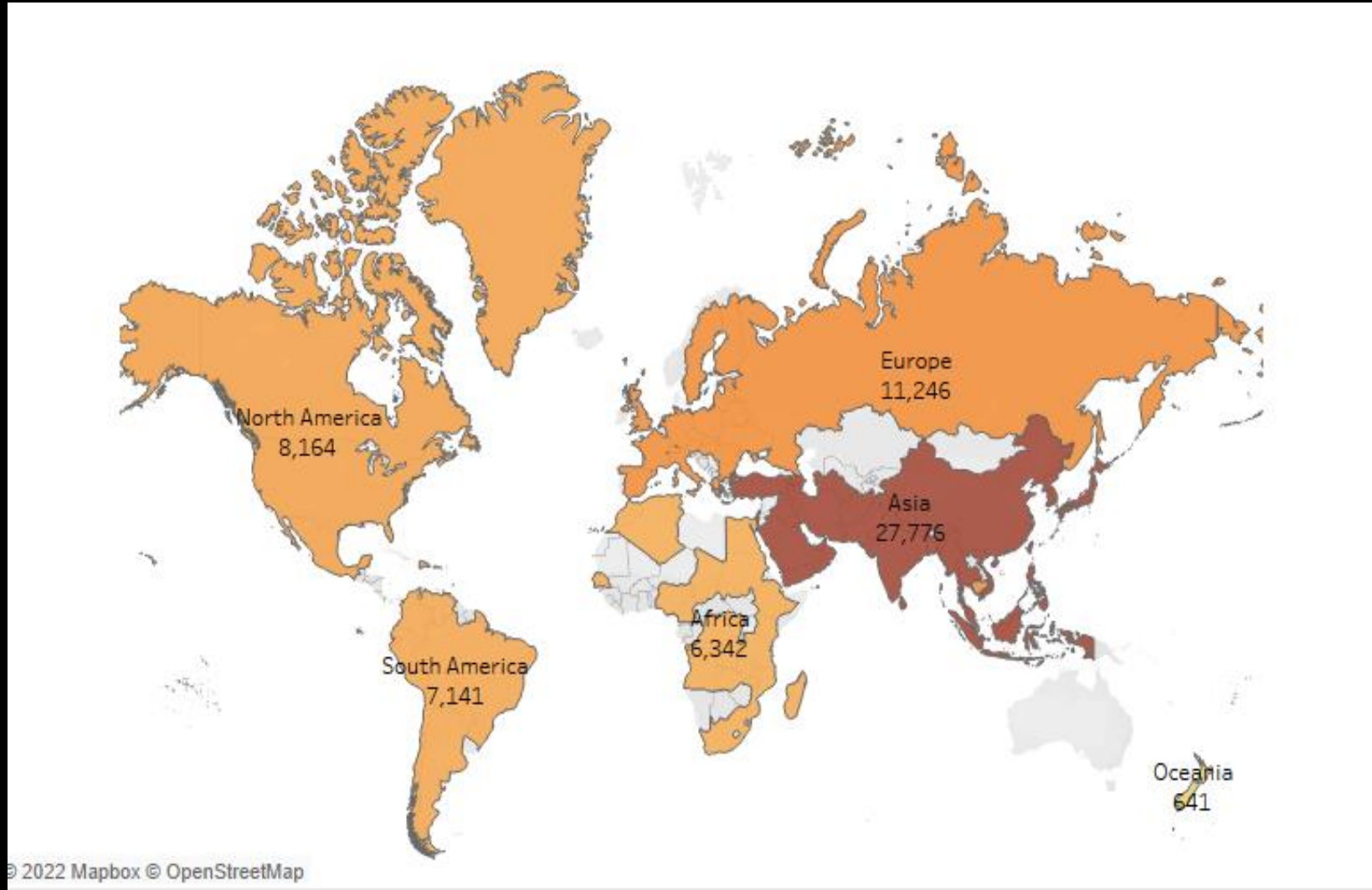
Asia has the most sales which accounts for 45% of the total revenue.

Revenue by rating

Revenue by rating

PG-13 13,856	PG 12,237	R 12,073
NC-17 12,635	G 10,512	

Though PG-13 generated the most revenue, there isn't much variability among the ratings.

Revenue by Genre

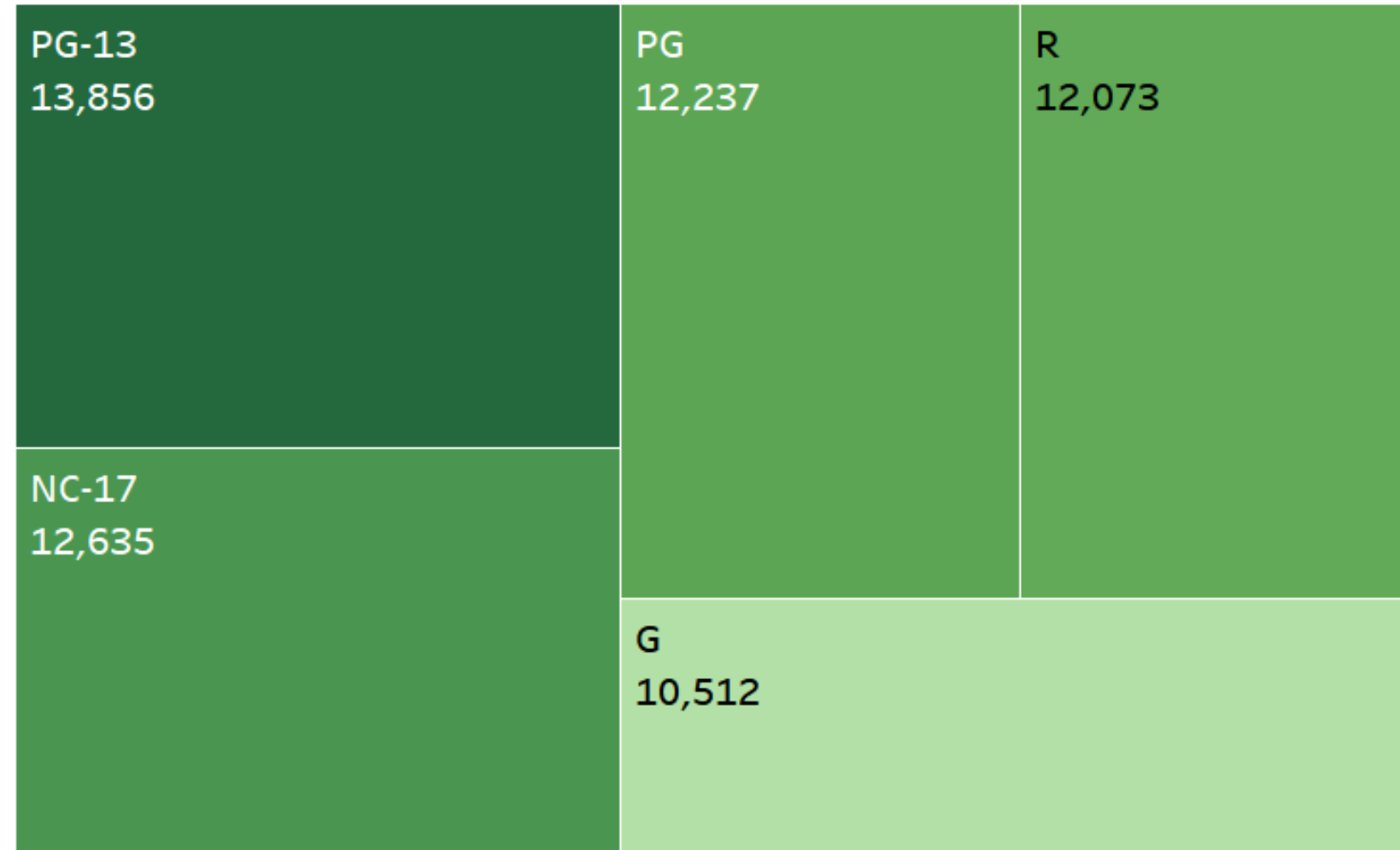Revenue by genre

Genre	Total Payment($)
Sports	4,892
Sci-Fi	4,336
Animation	4,245
Drama	4,118
Comedy	4,002
New	3,966
Action	3,952
Foreign	3,934
Games	3,922
Family	3,782
Documentary	3,750
Horror	3,401
Classics	3,353
Children	3,309
Travel	3,227
Music	3,072
Thriller	48
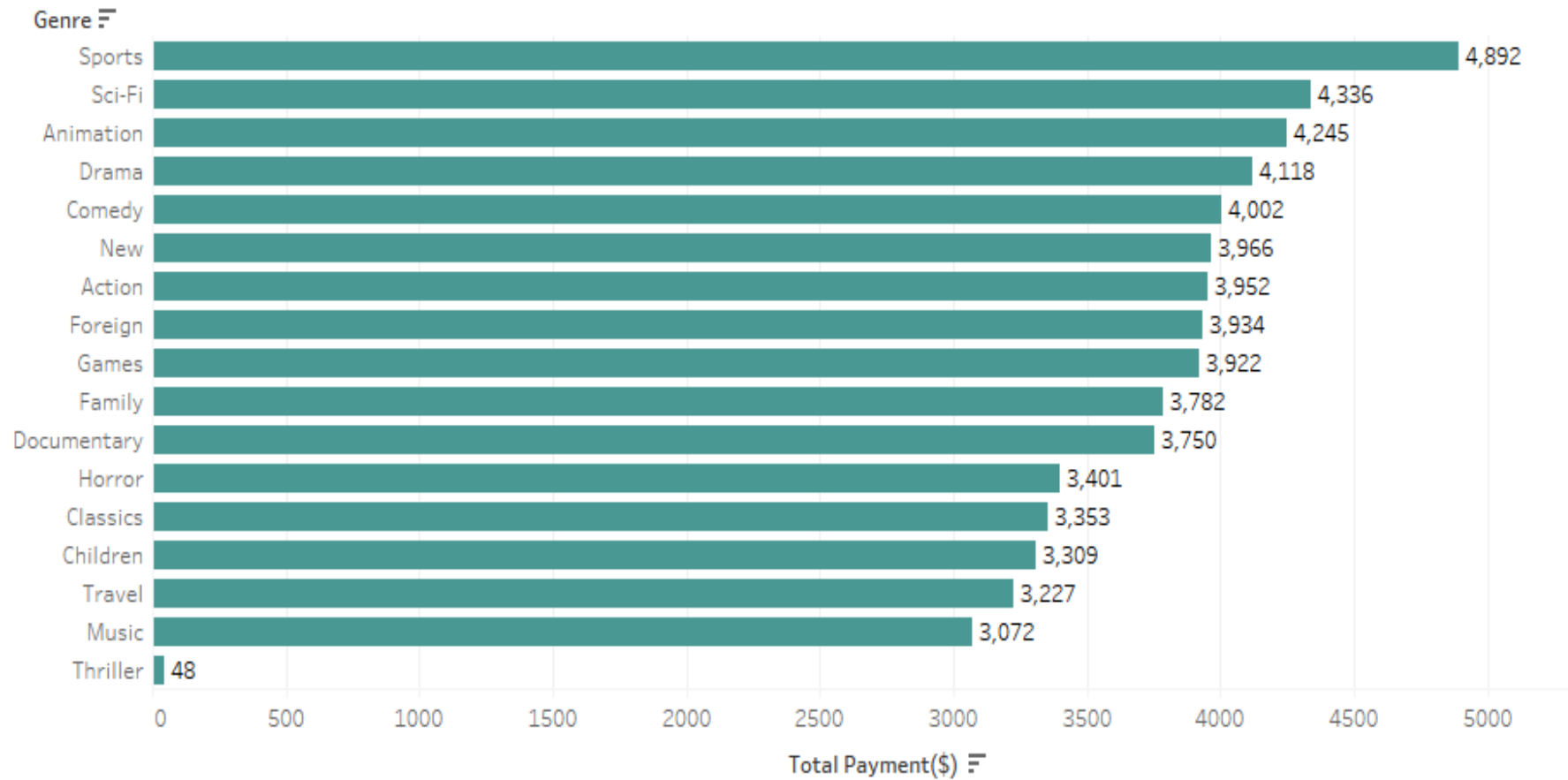
Sports generated the most revenue and surprisingly Thriller generated the least revenue. This could be as a result of the number of available movies in each genre.

Number of Movies per Genre

Number of movies per genre

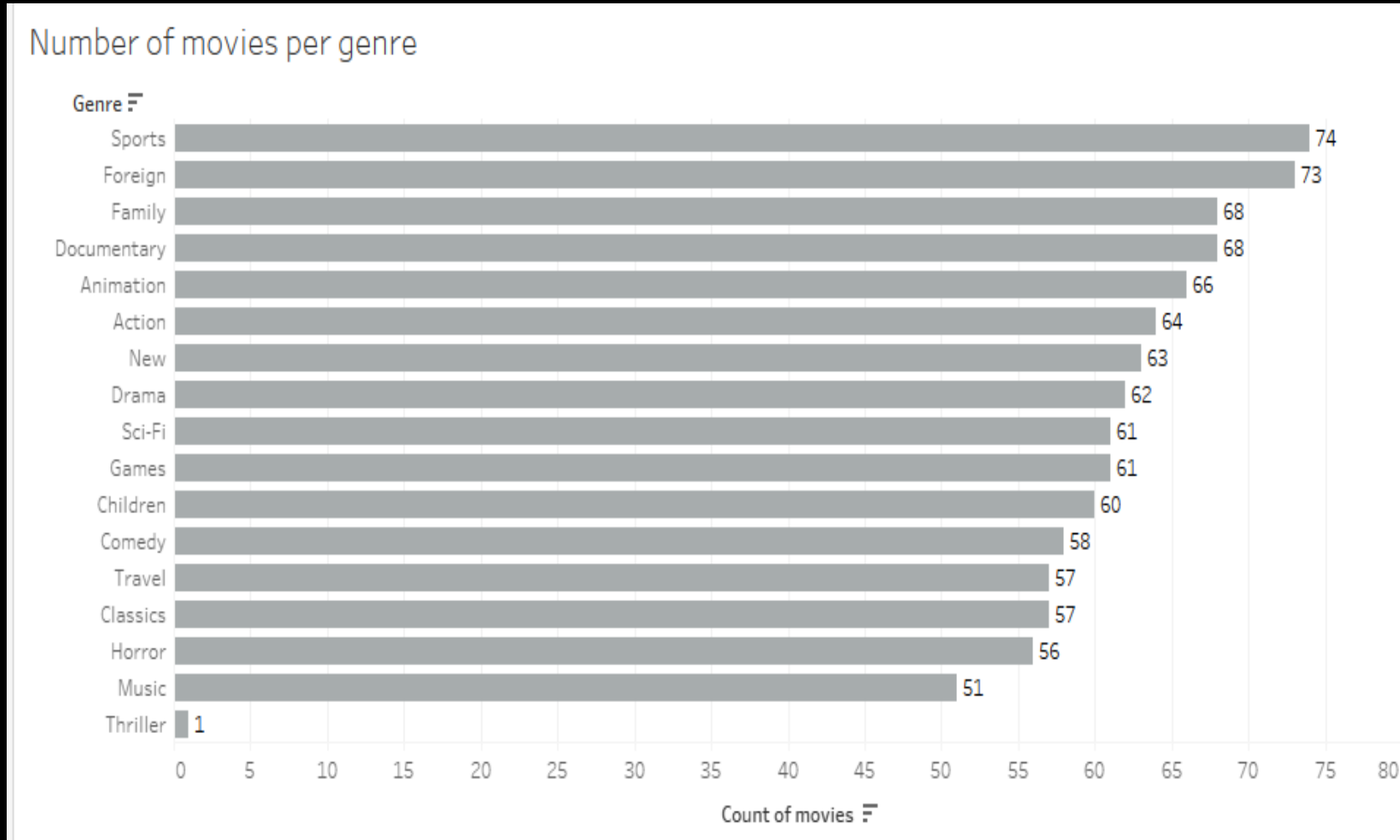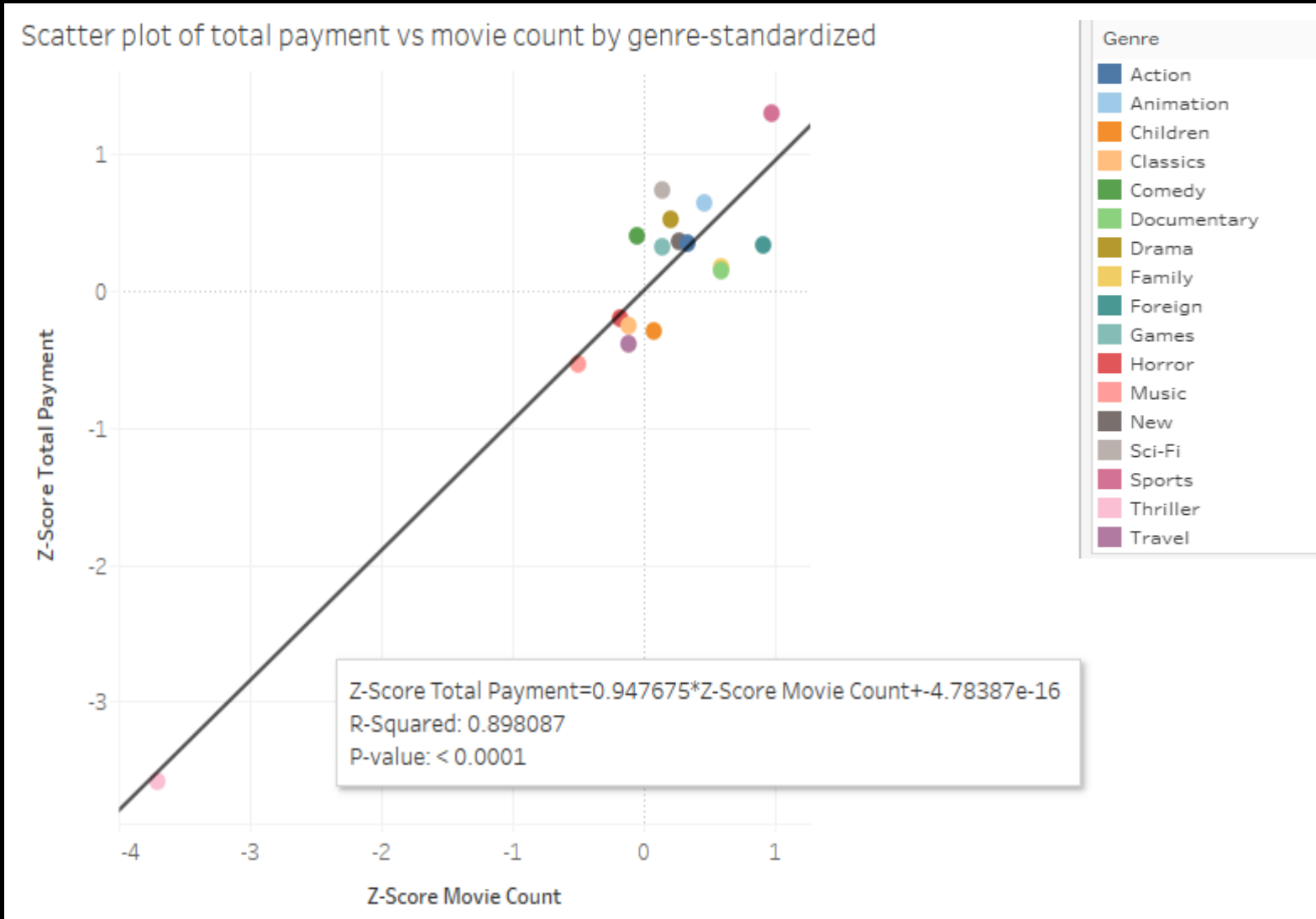| Genre	Count of movies
Sports	74
Foreign	73
Family	68
Documentary	68
Animation	66
Action	64
New	63
Drama	62
Sci-Fi	61
Games	61
Children	60
Comedy	58
Travel	57
Classics	57
Horror	56
Music	51
Thriller	1

Sports has the most movies while Thriller has the least movies.

Like earlier mentioned, number of movies could be linked to revenue generated per genre. Further analysis was done to ascertain if there exist a positive relationship between both variables.

Results from statistical analysis

Scatter plot of total payment vs movie count by genre-standardized

Genre
- Action
- Animation
- Children
- Classics
- Comedy
- Documentary
- Drama
- Family
- Foreign
- Games
- Horror
- Music
- New
- Sci-Fi
- Sports
- Thriller
- Travel

Z-Score Total Payment=0.947675*Z-Score Movie Count+-4.78387e-16
R-Squared: 0.898087
P-value: < 0.0001

Further analysis, reveals that there's a strong positive relationship between number of movies available per genre and revenue generated per genre. Also, the relationship is statistically significant at 95% confidence level.

Recommendation

With respect to the online video rental service, here are my recommendations;

- Ad campaigns should be targeted at top continents, countries and cities.

- Analysis has shown that increase in number of available movies leads to an increase in revenue. Hence, more movies should be made available in the different genres. Data should be collected to know what kind of movies customers like.

- Top movies should be prioritized to increase revenue.

Recommendation Cont'd

- Foreign films should be made available since 45% of the customers are from Asia.

- The collection of films should be expanded to increase the client base as only film released in 2006 are currently available.

Next Steps

- A survey will be sent to customers regarding the 42 movies that were never rented. The data will be analysed to determine why and the way forward. This could help save and generate money for the company.

- All existing and potential customers will be notified about the new online rental service and feedback will be obtained on how to make the experience more exciting.

- Sales channels will be identified e.g monthly subscription, purchase per film etc.

- Analysis will be done three months into the implementation of the new service to determine key business metrics and monitor its progress. The results should identify areas for improvement and help make critical decisions.

THANK YOU

Please see link to visualizations:
https://public.tableau.com/app/profile/mercy.tsekiri/viz/VisualizationofRockbusterData/Revenuebyrating?publish=yes