

# Final Project: Video Game Sales

# Understanding Video Game Success

The goal of this project is to analyze video game sales from 1978 to 2024.

Through this analysis, we hope to better understand markers that indicate success.

The Key Markers that we will go through are:

1. Genres
2. Critic/User Score
3. Platform

# About the Dataset

Source: From Gigasheet; it covers video game sales from 1978 to 2024.

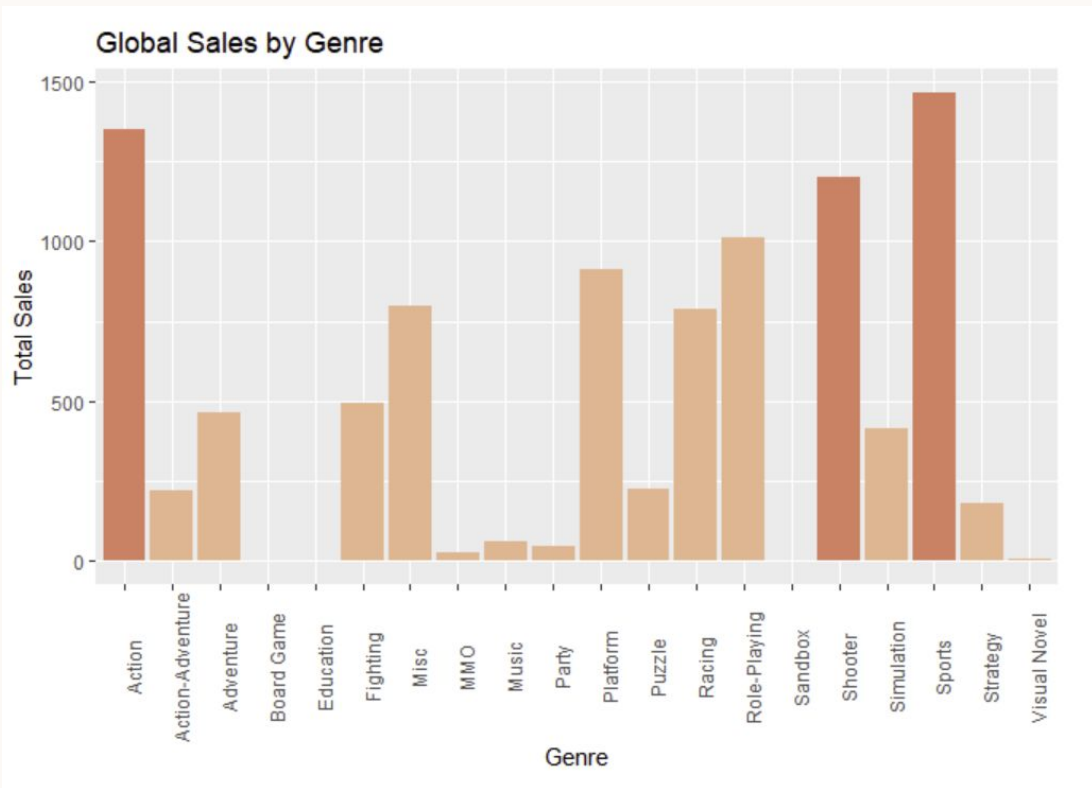
Size & Scope: Includes over 63,000 records with 16 variables.

Key Variables: Global Sales, Genre, Platform, User Score, Critic Score, and Regional Sales (NA, PAL, JP, Other).

Data Cleaning: Removed rows missing data from key variables.

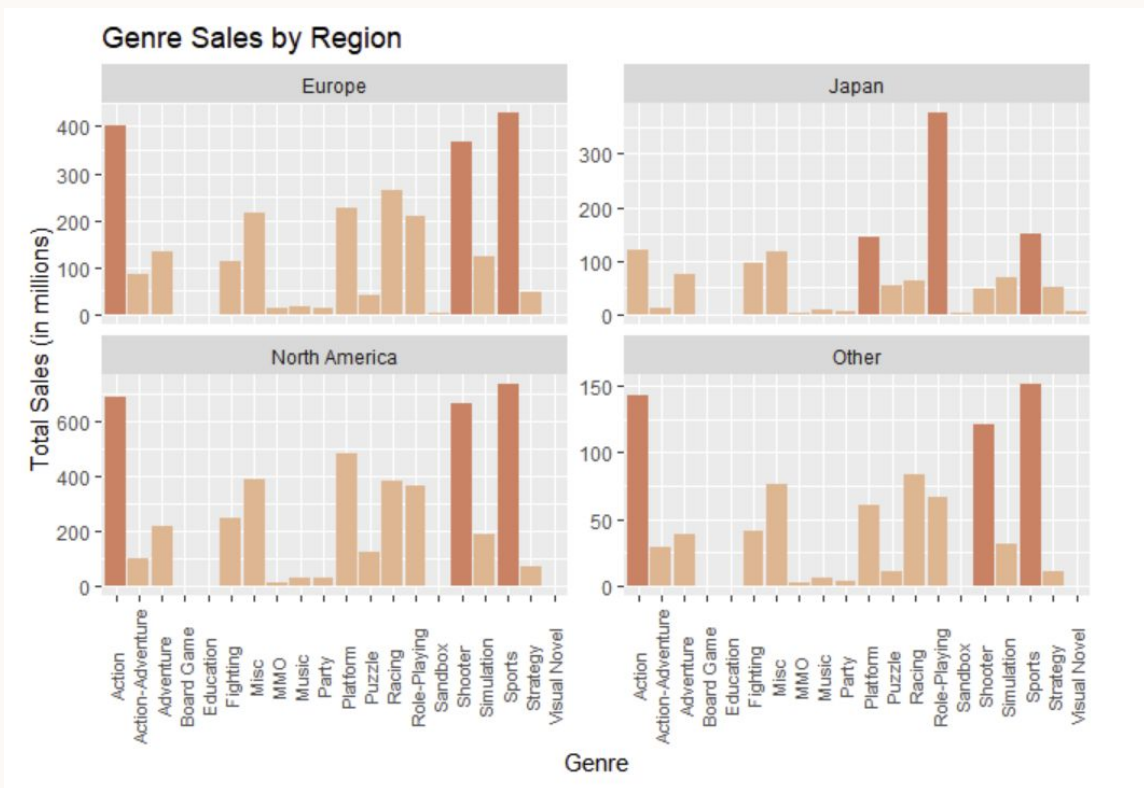
# Genres

# Which Genre is the Most Popular?



The 3 most popular genres by total sales for all years are Sports, Action, and Shooter.

# Which Genre is the Most Popular in Each Region?



All areas except for Japan have the same Top 3 Genres (Sports, Action, Shooting).

Japan however, has Role-Playing, Platforming, and Sports as their top 3.

# Why are Japan's favorite genres so different?

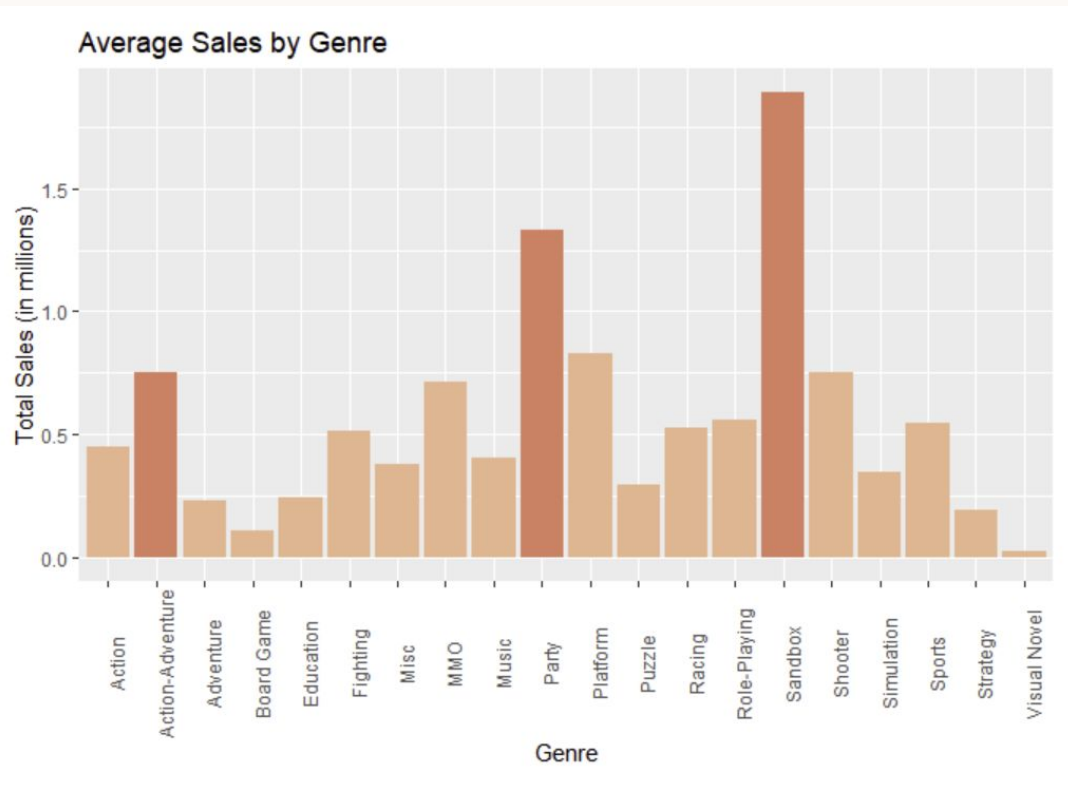
Japan is a capital of video gaming. According to IMDb, there exists a genre titled JRPG - or Japanese Role Playing Games.

This sub-genre contains popular titles such as Final Fantasy, Kingdom Hearts, and Persona 5.

While those titles are popular even in the US, they are obviously extremely popular in Japanese culture given that they are in the sub-genre named after it.

source: <https://www.imdb.com/list/ls022397153/>

# How does Average Sales affect Popular Genres?



After analyzing total sales, we thought critically about how many Sports games there are.

Thus, we analyzed the average sales and found that the top genres changed.

Now the Top 3 genres are Shooter, Party, and Action-Adventure



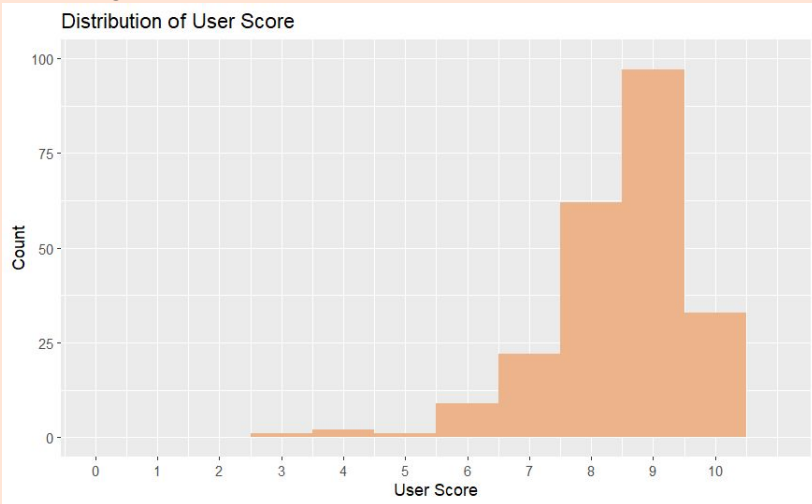
# User and Critic Scores

# Do User and Critic Ratings Differ?

What is the distribution of User Scores?

Left Skewed

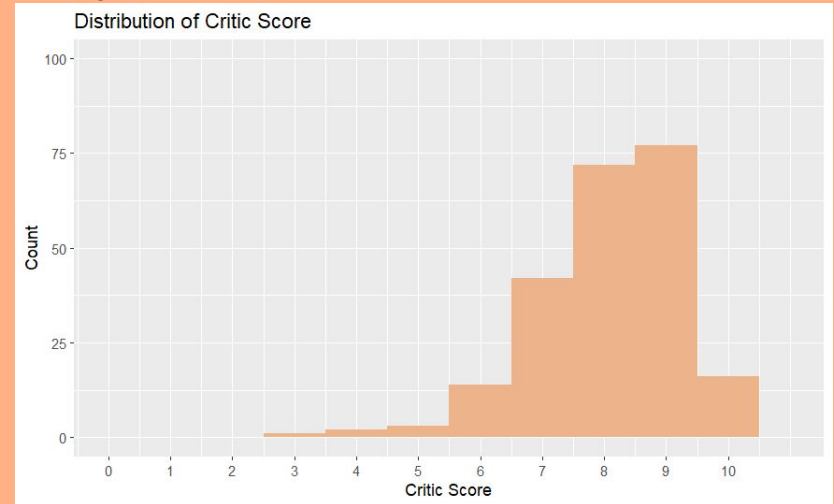
Average: 8.54185



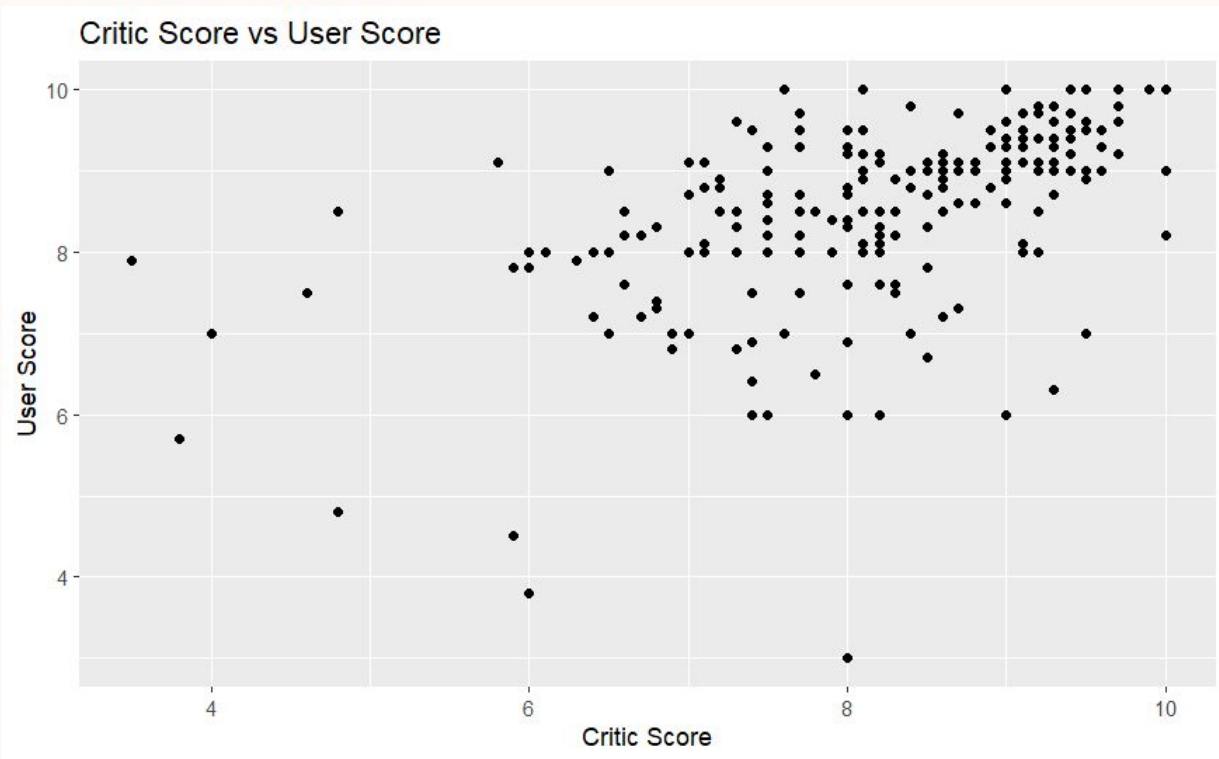
What about Critic Scores?

Less Skewed than User Scores

Average: 8.162555



# Do Scores Differ Between Users and Critics?

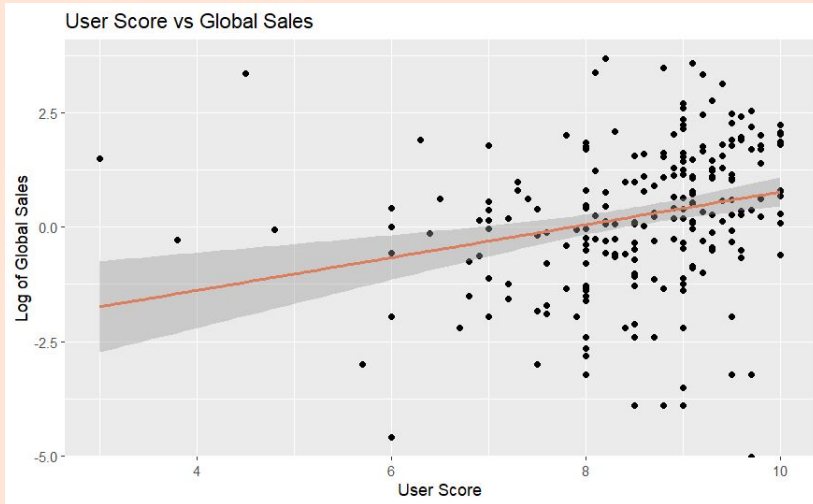


There is definitely a correlation between Critic Score and User Score, but there is a notable difference as the scores get lower.

# Do Ratings Influence Sales?

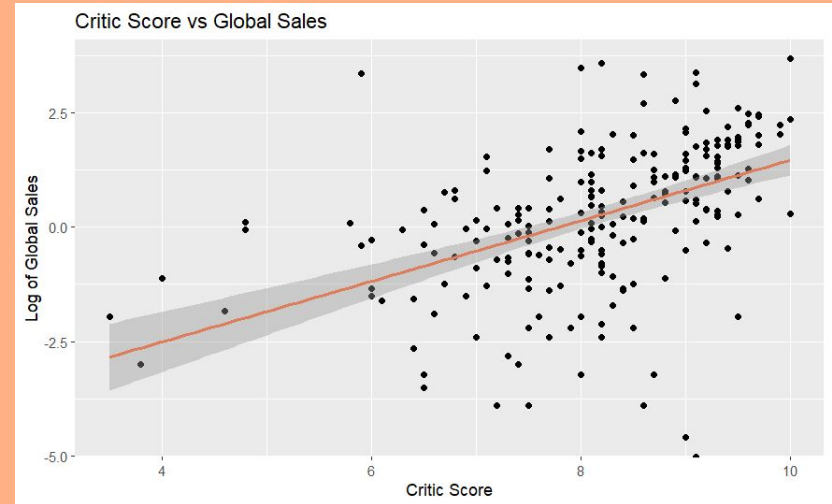
## Is there a relationship between user rating and sales?

User ratings are positively related to sales but less productive



## What about critic rating?

Critic ratings show a moderate to strong correlation with global sales



# Do Scores Differ by Platform?

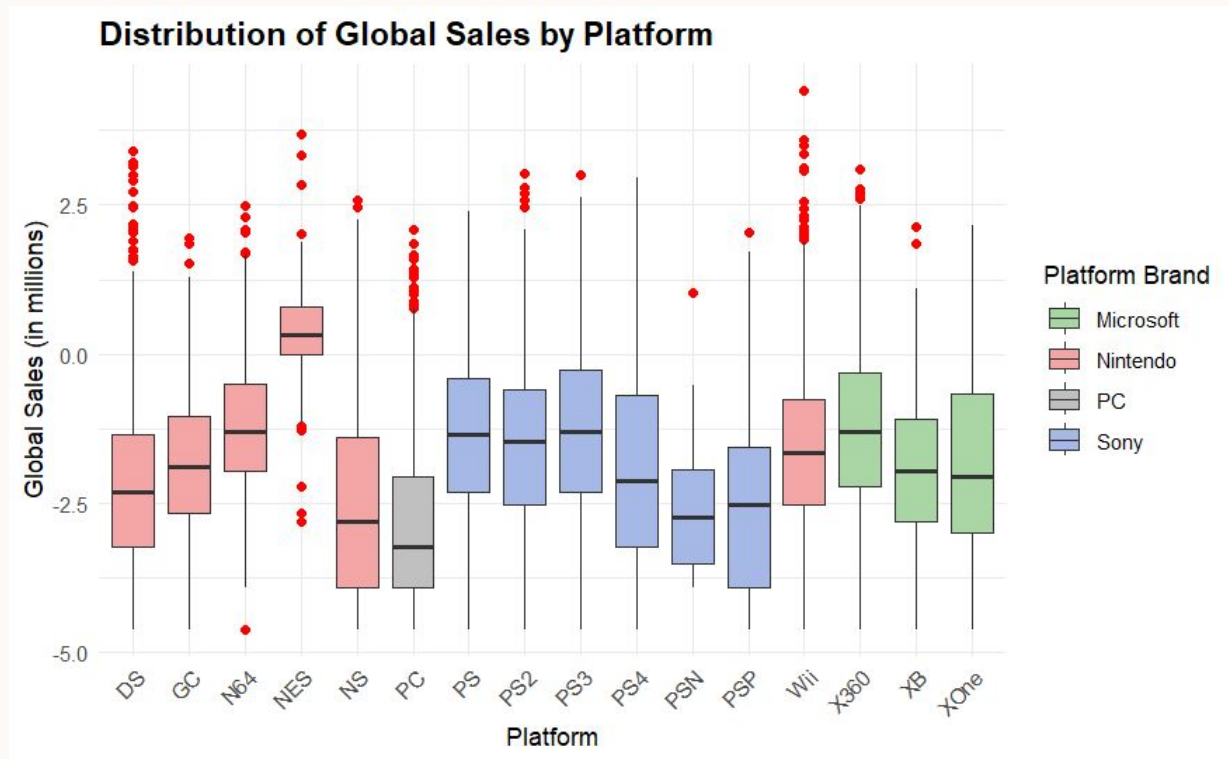
Platform <chr>	Average User Score <dbl>	Average Critic Score <dbl>
N64	9.533333	9.633333
XB	9.366667	9.300000
PS4	9.000000	9.050000
PSP	8.800000	7.720000
PS2	8.793750	8.818750
PS3	8.707692	8.353846
PSN	8.700000	7.700000
NS	8.680000	8.170000
PC	8.600000	8.300000
X360	8.577778	8.258333
DS	8.533333	8.320000
Wii	8.352273	7.468182
NES	8.200000	10.000000
GC	8.200000	7.850000
XOne	8.000000	7.950000
PS	7.944444	8.466667

1-16 of 18 rows

The Scores do differ by platform, but we noticed that there are more apparent patterns between Platform and Sales

# Platform

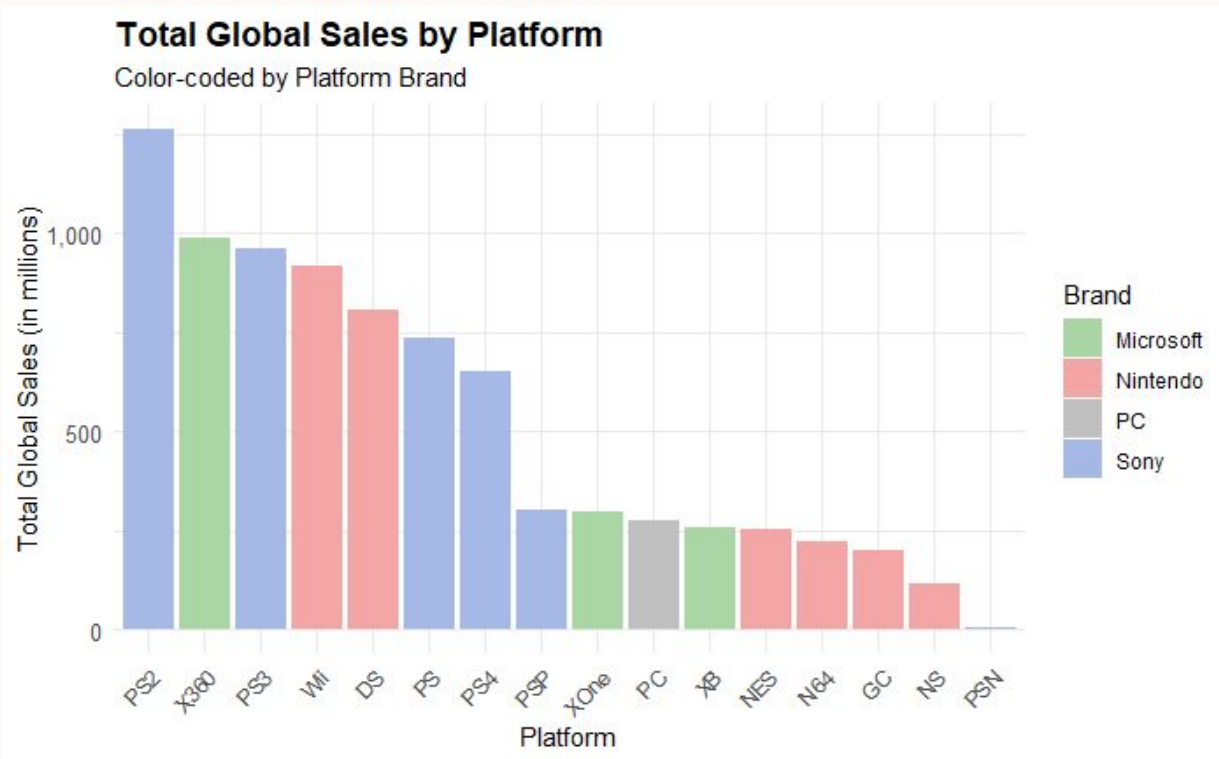
# Which Platform Had the Best Selling Games?



Nintendo platforms like the DS and Wii show higher median sales and a dense cluster of top-sellers.

Sony and Microsoft show consistent performance.

# Which Platform is the Best Selling Globally?

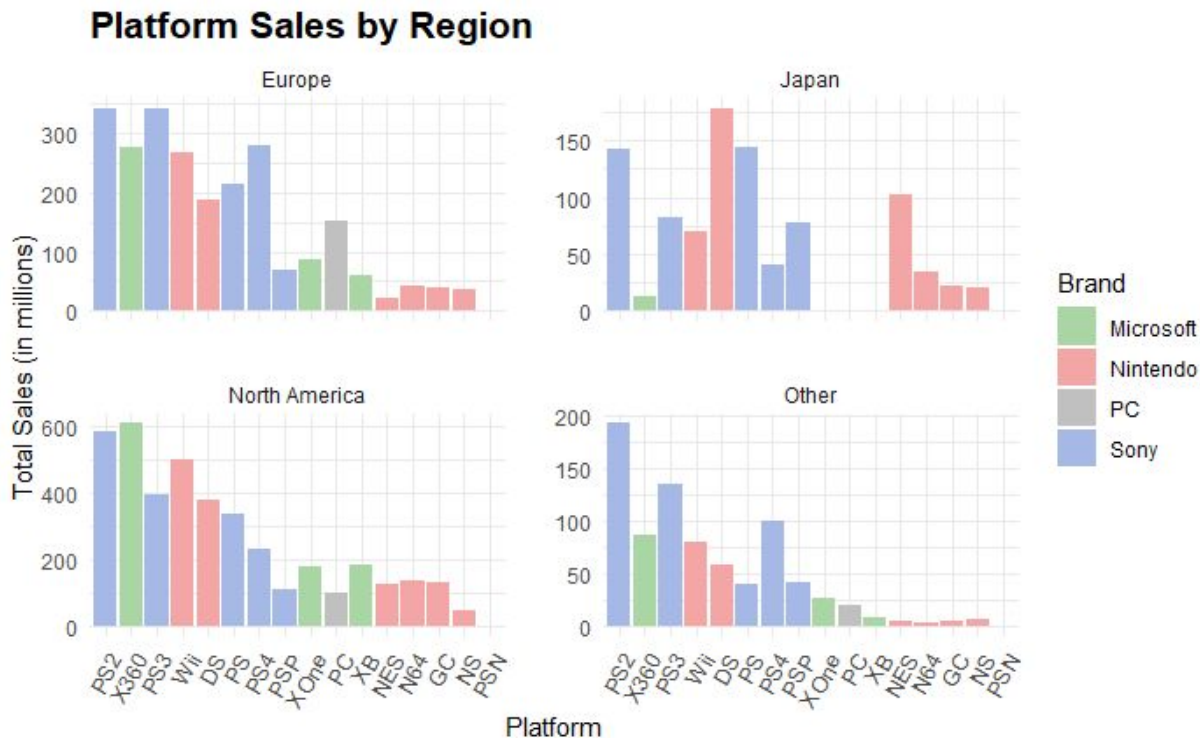


The most successful platform in terms of global sales is the PlayStation 2 (PS2), which sold over 1.25 billion units globally.

Nintendo had a lot of individually successful games, but overall, Sony had more total sales.



# Which Platform is the Best Selling in what Regions?



The top four popular platforms in Europe and North America: PS2, X360, PS3, and Wii

The top four popular platforms in the rest of the world (excluding Japan): PS2, X360, PS3, and PS4

The top four popular platforms in Japan: PS2, DS, PS, and NES

# Why does Japan Significantly Differ?

“Without the contributions of Japan, we wouldn’t have a video game industry.”

– Blake J. Harris

Video Game Expert and Author of “Console Wars”

Source: [CNN](#): Jacopo Prisco, 2017

<https://www.cnn.com/2017/11/12/asia/future-japan-video-game-landmarks/index.html>

The top four popular platforms in Japan: PS2, DS, PS, and NES

Both DS (Dual Screen) and NES (Nintendo Entertainment System) are Nintendo products.

Both PS2 (PlayStation 2) and PS (PlayStation) are Sony products.

Both Nintendo and Sony were founded in Japan:

- Nintendo: Shimogyō-ku, Kyoto, Japan
- Sony: Nihonbashi area of Tokyo, Japan

# Conclusion

# What are the Top Genres in Each Region?

- North America and Europe: Prefer Shooter, Sports, and Action
- Japan: Prefers Role Playing, Platformers, and Sports
- Market tends differ across regions, shaping development strategies



# Final Takeaways

Sports remains the most commercially successful genre globally

Critic ratings play a bigger role in predicting a bestseller than user scores

PS2 leads in total sales, but Nintendo platforms dominate the highest selling individual games

Cultural differences influence genre success across regions

# Further Questions

How do digital-only games compare in sales and ratings to physical releases?

Especially as digital distribution has grown, this could reveal shifting consumer behaviors.

What impact do major game franchises have on platform success?

Analyzing the effect of flagship series like Call of Duty or Mario on console sales.

Do marketing budgets or release timing influence sales more than ratings?

This could help disentangle the role of exposure vs. critical reception.

How has the rise of mobile and indie games changed genre popularity over time?

A closer look at newer platforms and development models could uncover emerging trends.

# Questions