Final Visualization Report: Global Video Game Sales (1980-2020)

Student Name: Jahanzaib Tariq Student ID: 23036048 <u>GitHub_Link</u>

Introduction

This report focuses on video game sales more than 100,000 copies using data obtained from VGChartz. The dataset contains 16,598 records and offers information about important features, including game names, platforms, genres, publishers, years of release, and sales. The main purpose is to identify patterns in the gaming industry based on the summary statistics, descriptive visualization, and analysis.

Description of the Data

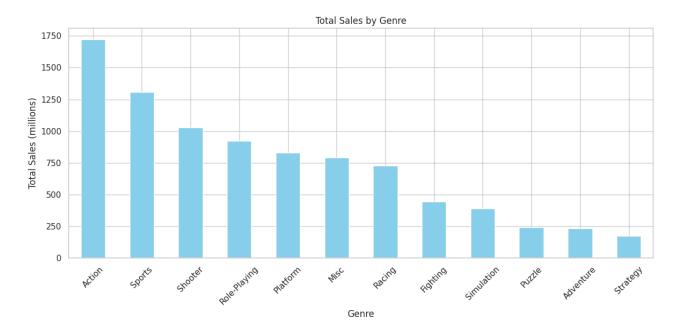
The dataset contains following fields:

- Name: Title of the game.
- **Platform:** Release platform (PS4, PC).
- Year: Release year.
- **Genre:** Game genre (Action, Sports).
- **Publisher:** Publishing company.
- Regional Sales: Sales in North America, Japan, and other regions (millions).
- Global Sales: Total worldwide sales (millions).

Results and Discussion

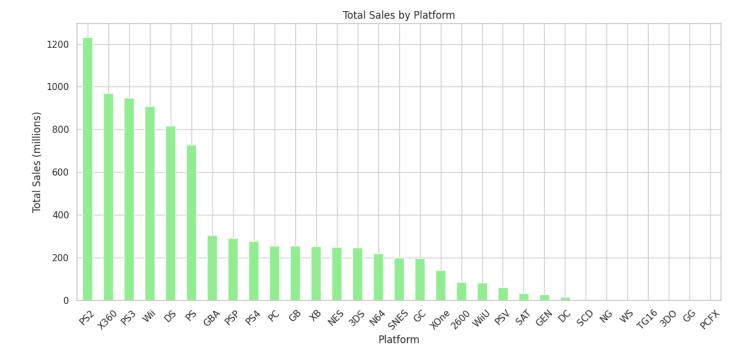
Global Sales by Genre

Total global sales are displayed through a bar chart based on the different genre. The most popular games are the Action, Sports, and Shooter, which accounts for more than 60% (1,800 million) of game sales around the world. These genres find an audience with players because of the game plot and connection to the reality.



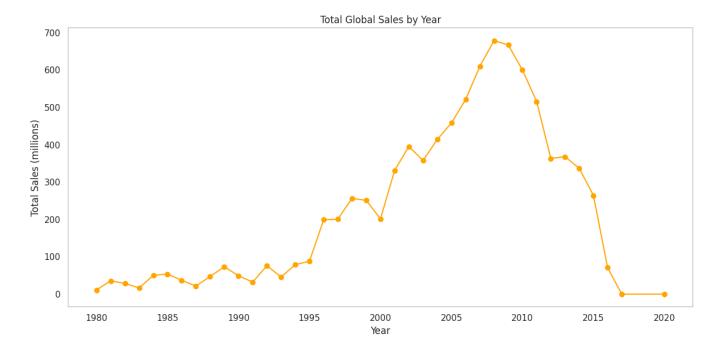
Sales Performance by Platform

The highest sales figures are reported in PS2, followed by DS with sales exceeding 1,200 million units each. These platforms stand out because of their long lifecycle, large library of games and exclusive games for platform. It can be ascertained from the data that compatibility of the titles play the critical role to make platform successful.



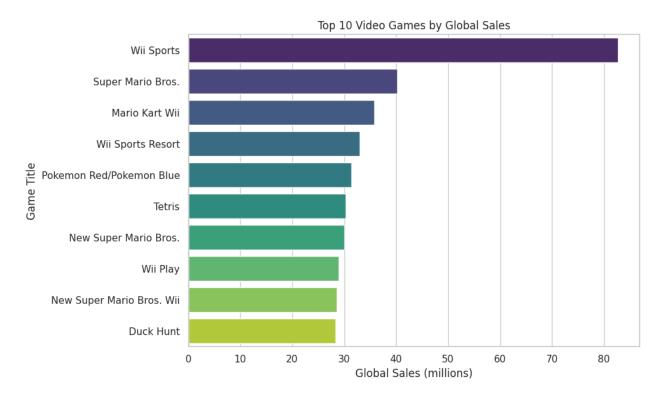
Temporal Trends in Sales

A line plot shows the sales at the international level from the year 1980 to 2020. The sales reached their highest values in the middle of the 2000s – 2008-2010 years, at the time of the release of large consoles. This era saw the developments of important assets like HD graphics and online multiplayer features. The next fall in sales is consistent with the maturity stage, which can be contributed by the increased availability of competitors' gaming platforms such as portable devices.



Top-Selling Games

A horizontal bar chart indicates the top ten most popular games. This illustrates the concepts of brand management, exclusivity. "Wii Sports," has world's sale record of 82.74 million."



Summary Table

Genre	Total Global Sales(M)	Average Global Sales(M)	Count of Games
Action	1722.84	0.529941556	3251
Sports	1309.24	0.568246528	2304
Shooter	1026.2	0.800468019	1282
Role-Playing	923.83	0.628455782	1470
Platform	829.13	0.947577143	875
Misc	789.87	0.468487544	1686
Racing	726.76	0.593273469	1225
Fighting	444.05	0.531160287	836
Simulation	389.98	0.459882075	848
Puzzle	242.21	0.424929825	570
Adventure	234.59	0.184136578	1274
Strategy	173.27	0.25861194	670

The table summarizes key statistics by genre, emphasizing the high profitability of Shooter games and the consistent demand for Action titles.

Assumptions

- It is clear that the presented dataset provides a true picture of video game sales that went beyond 100,000 copies.
- Regional sales data is always complete and contains all elements which contribute to the result.

They found that platform, genre and release year have an impact on sales while external factors have little impact on sales.

Conclusion

This analysis reveals:

Genre Preferences: PAC and ASN are most popular because of gameplay and association with real-life activities.

Platform Impact: The PS2 and DS proves that one needs a large number of games and that exclusivity is a must.

Sales Peaks: Market interest in next-generation consoles is seen at its highest in 2008-2010, which is marked by extensive innovation.

Top Sellers: Such names as "Wii Sports" are the result of the use of bundling and cross-product distribution.

The investigation of these propositions contributes to the understanding of how consumers and technology and strategic choices have been influencing the gaming industry.