# Data Analysis Portfolio

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# Professional Background:

*As a data analyst with a passion for driving business success through analytics, my journey began with a fascination for numbers, leading me to pursue a Bachelor's degree in Petroleum Engineering.*

*After graduation, I delved into the world of finance, working in the merchant acquiring department of a bank where i  honed my analytical skills and had my first hands-on experience with data cleaning and manipulations using excel. Here, I immersed myself in analysing performance of merchants, identifying trends and optimizing processes. This experience gave me an understanding of how data can drive strategic decisions and fuel growth.*

*Now, I am making a transition into the tech industry, eager to combine my passion for analytics with emerging technologies to innovate and shape the future. My goal is to empower organizations with actionable insights that inform strategic decisions  and unlock new opportunities for success.*

*I am open to collaborating with Fintechs, Banks, Startups and other institutions to unlock their full potential - whether it is identifying market trends, optimizing workflows, or enhancing customer experiences to achieve sustainable growth.*

# Video Game Sales Analysis.

# Project Description:

*The goal of this project is to conduct a comprehensive analysis on all video games sales worldwide. To deep dive into top performing video games, genres, publishers and platform.*

*The analysis and insights from the Top 20 performing video games will be instrumental in improving the business model, strategic planning, decision making and overall business performance that will drive revenue and sales growth.*

*The findings and actionable recommendations is geared towards helping this Video Game sales company navigate the marketing Industry with precision and foresight as well as ensuring competitiveness in the market.*

# Table of Contents:

# Key questions:

1. What percentage make up the genres of the video game sales?
2. What genre of video games has the highest ranking?
3. What is the total worldwide sales in each genre?
4. What genre has the highest and lowest sales across the regions?
5. What region recorded the highest sale?.
6. What platform recorded the highest sales?
7. What platform(s) recorded the highest and lowest video game sales across the regions?
8. What publisher made the highest sales?
9. In what year was the highest sales recorded?
10. Action genre vs Sports genre.
11. What are the Top 20 performing video games? Also, include the following information:
    - Their genre
    - Their platform
    - The publisher
    - And their sales across the globe
12. Does Genre/publisher/platform impact the sale of video game?

# Findings & Insights

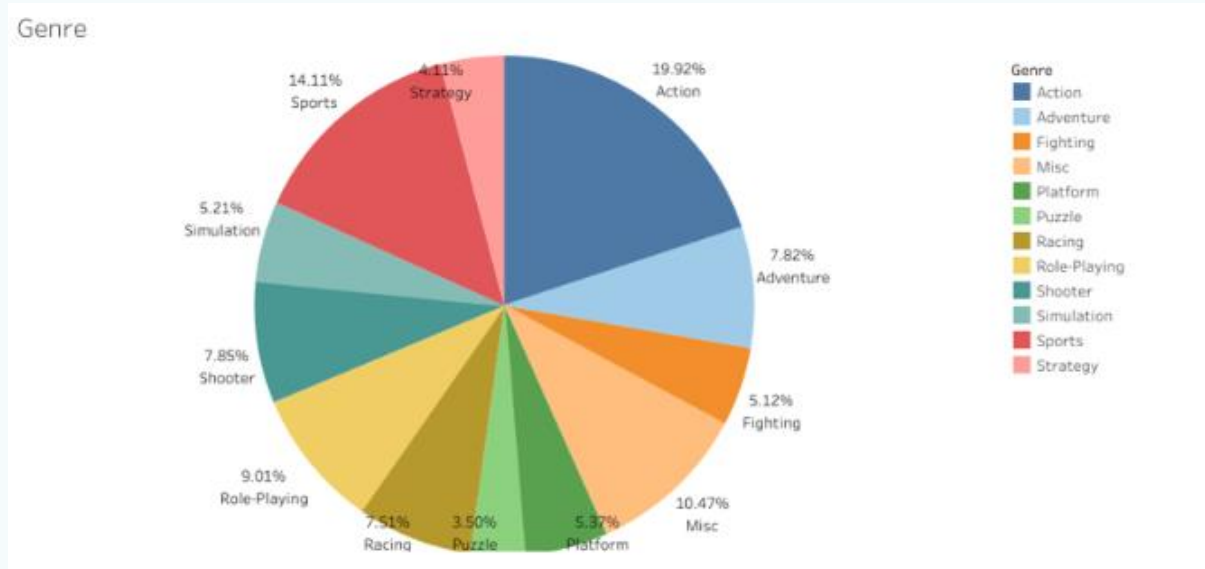## 1. What percentage make up the genres of the video game sales?



Figure 1

Based on the chart, the Action video game genre holds the top spot with a percentage of 19.92%, followed by Sports at 14.11%. On the other hand, Puzzle video games make up the smallest fraction, comprising just 3.5% of the total.

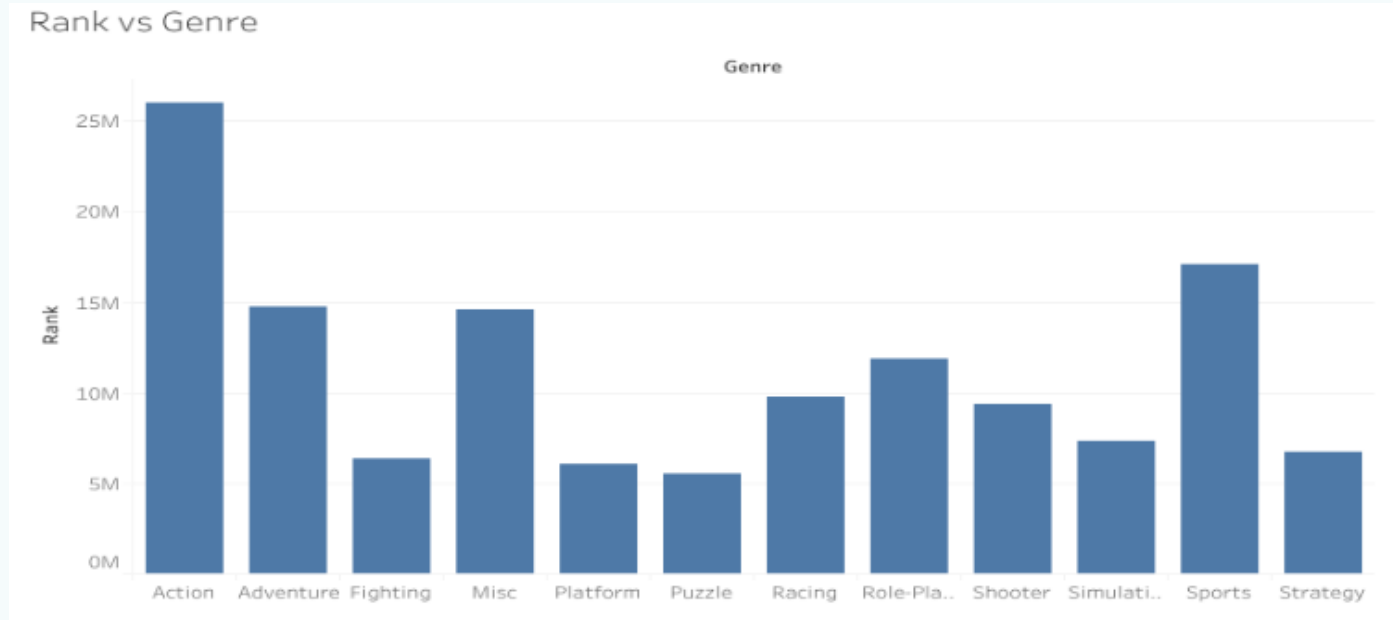## 2. What genre of video games has the highest ranking?



*Figure 2*

*The graph indicates that Action genre is ranked the highest among all genres followed by Sports.*

# 3. What is the total worldwide sales in each genre?

| Genre | SUM of NA_Sales | SUM of EU_Sales | SUM of JP_Sales | SUM of Other_Sales | SUM of Global_Sales |
|---|---|---|---|---|---|
| Action | 861.80 | 516.48 | 158.66 | 184.92 | 1,722.88 |
| Sports | 628.60 | 342.32 | 130.99 | 124.19 | 1,226.50 |
| Shooter | 575.16 | 310.45 | 38.18 | 101.90 | 1,026.20 |
| Racing | 356.93 | 236.32 | 56.61 | 76.68 | 726.77 |
| Misc | 402.48 | 213.82 | 106.67 | 74.02 | 797.62 |
| Role-Playing | 326.50 | 187.58 | 350.29 | 59.38 | 923.84 |
| Platform | 445.99 | 200.67 | 130.65 | 51.51 | 829.15 |
| Fighting | 220.74 | 100.00 | 87.15 | 36.19 | 444.05 |
| Simulation | 181.78 | 113.20 | 63.54 | 31.36 | 390.16 |
| Adventure | 102.06 | 63.79 | 52.01 | 16.70 | 234.80 |
| Puzzle | 122.01 | 50.53 | 56.68 | 12.47 | 242.22 |
| Strategy | 67.89 | 44.94 | 49.10 | 11.23 | 173.43 |
| **Grand Total** | **4,291.94** | **2,380.10** | **1,280.53** | **780.55** | **8,737.62** |

*Table 1*

*The total worldwide sales is 8,737.62 million, with the Action genre leading at 1,722.88 million (19.53%) of the total. Sports followed at 1,226.5 million (14.84%), Shooter ranked third with1,026.20 (11.63%), and Strategy had the lowest sales contribution at 173.43 million (1.97%).*

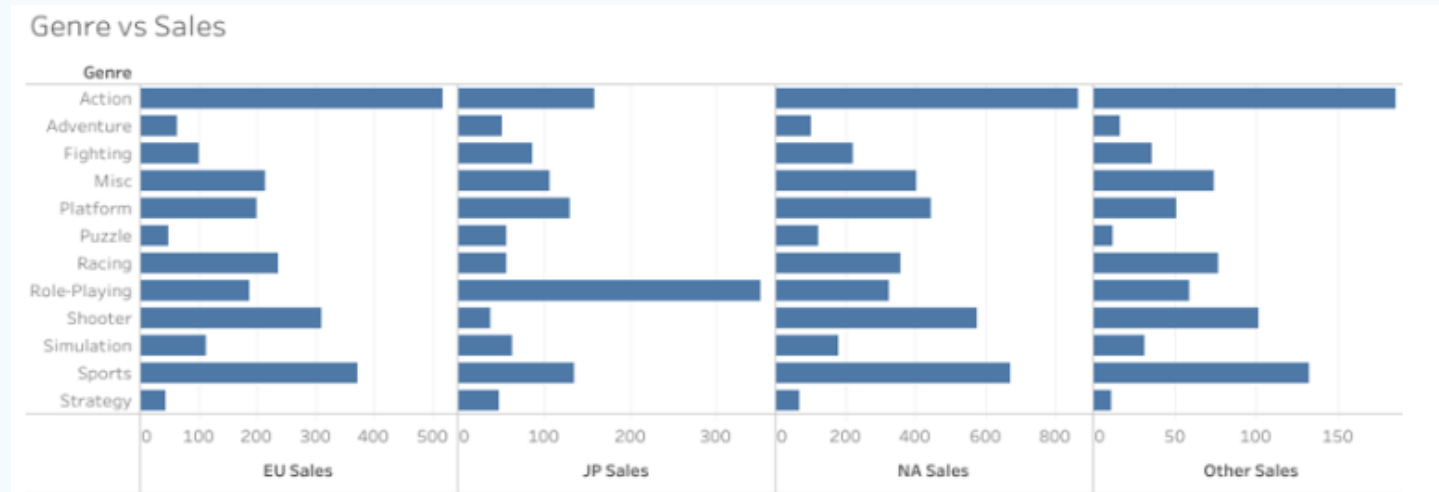# 4. What genre has the highest and lowest sales across the regions?



*Figure 3*

**EU Sales**: The Action genre emerges as the top seller, while the Strategy genre lags behind in sales.

**JP Sales**: Role Playing games dominate the sales charts, while Shooter games register the lowest sales.

**NA Sales**: The Action genre leads in sales, with the Strategy genre trailing behind.

**Other Sales**: The Action genre commands the highest sales, while the Strategy genre records the lowest.
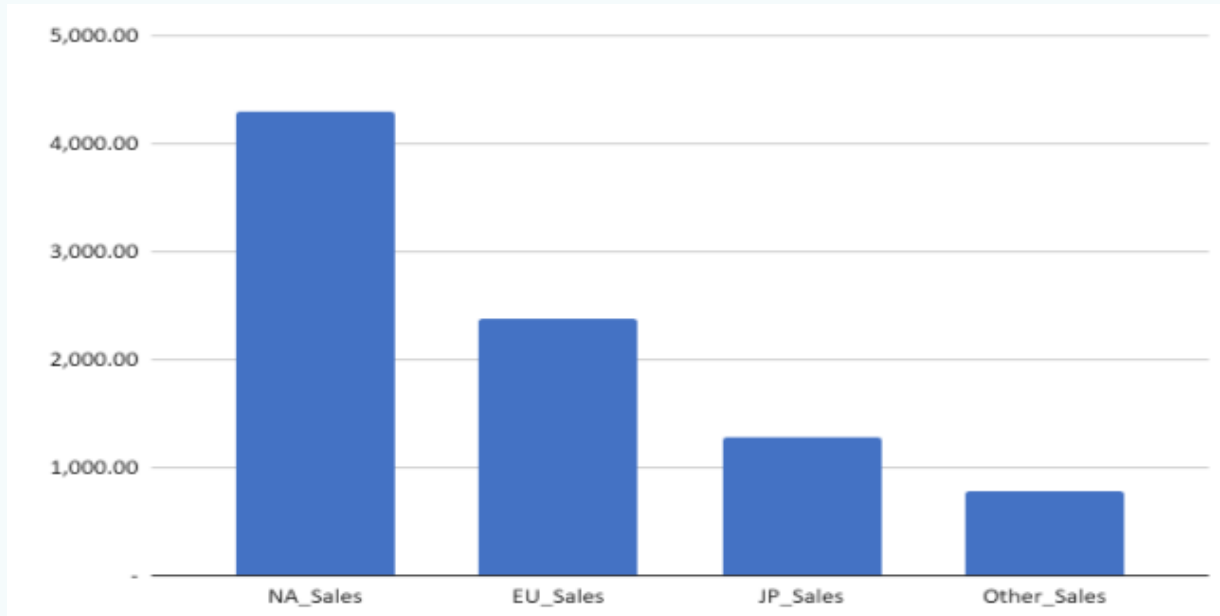
# 5. What region recorded the highest sales?



*Figure 4*

*From the graph above, North America stood out with the highest sales figures, reaching a total of 4,291.94 million.*

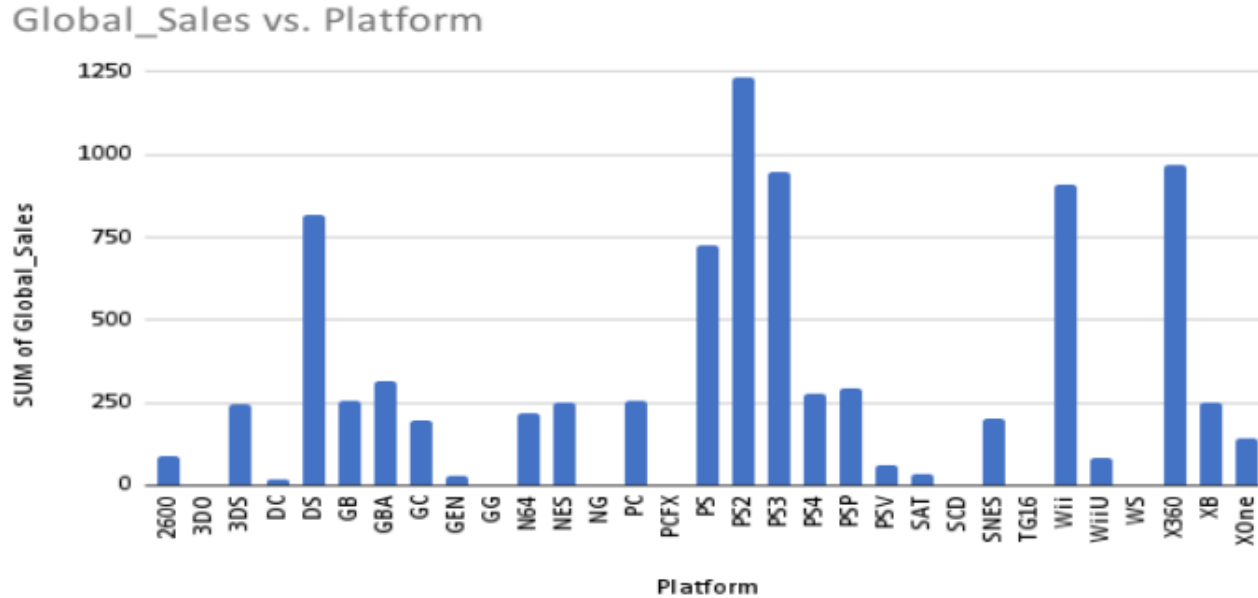## **6.** What platform recorded the highest sales?



Figure 5

*Based on the graph above, PS2 stands out as the platform with the highest sales, while PCFX ranks as the platform with the lowest sales.*

# 7. What platform(s) recorded the highest and lowest video game sales across the regions?
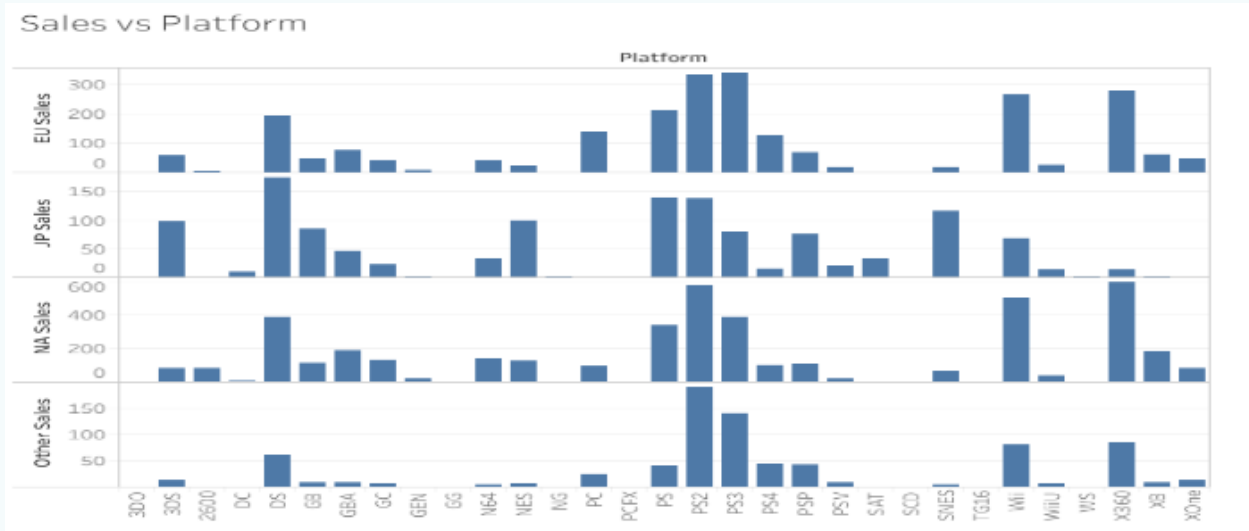


*Figure 6*

Based on the graph above:

- For **EU Sales**, PS3 tops the list in sales, while 3DO, GG, NG, PCFX, TG16, and WS rank lowest.

- In **JP Sales**, DS leads in sales, while 2600 records the lowest figures.

- **NA Sales** show X360 with the highest sales, and 3DO, GG, NG, PCFX, TG16, and WS with the lowest.

- **Other Sales** highlight PS2 as the top seller, with 3DO, GG, NG, PCFX, TG16, and WS at the bottom.

# 8. What publisher made the highest sales?

| S/N | Publisher | SUM of Global_Sales |
|---|---|---|
| 1 | Nintendo | 1,784.43 |
| 2 | Electronic Arts | 1,093.39 |
| 3 | Activision | 721.41 |
| 4 | Sony Computer Entertainment | 607.28 |
| 5 | Ubisoft | 473.54 |
| 6 | Take-Two Interactive | 399.30 |
| 7 | THQ | 340.44 |
| 8 | Konami Digital Entertainment | 278.56 |
| 9 | Sega | 270.70 |
| 10 | Namco Bandai Games | 253.65 |

Table 2.1

*The Nintendo publisher recorded the highest sales.*

| NA_Sales | EU_Sales | JP_Sales | Other_Sales |
|---|---|---|---|
| Nintendo | Nintendo | Nintendo | Electronic Arts |
| Electronic Arts | Electronic Arts | Namco Bandai Games | Nintendo |
| Activision | Activision | Konami Digital Entertainment | Sony Computer Entertainment |
| Sony Computer Entertainment | Sony Computer Entertainment | Sony Computer Entertainment | Activision |
| Ubisoft | Ubisoft | Capcom | Take-Two Interactive |

Table 2.2

*Nintendo tops as the highest publisher in NA, EU and JP Sales while Electronic Arts tops in Other Sales.*
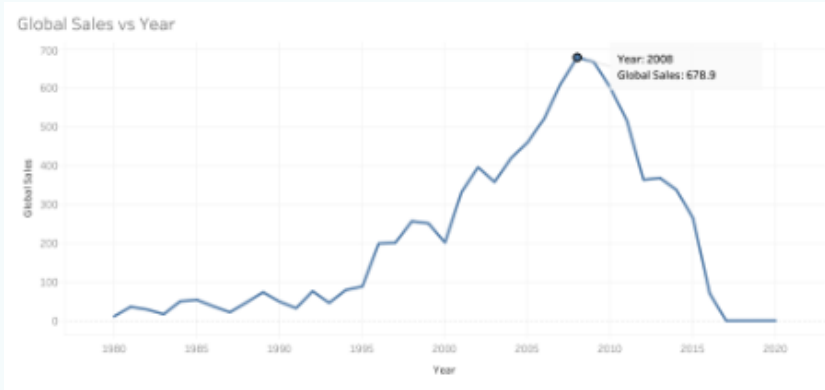
# 9. In what year was the highest sales recorded?

Global Sales vs Year



*Figure 7.1*

Year vs Sales



*Figure 7.2*

*The highest sales was recorded in the year 2008 with a total worldwide sale of 678.9 million.*
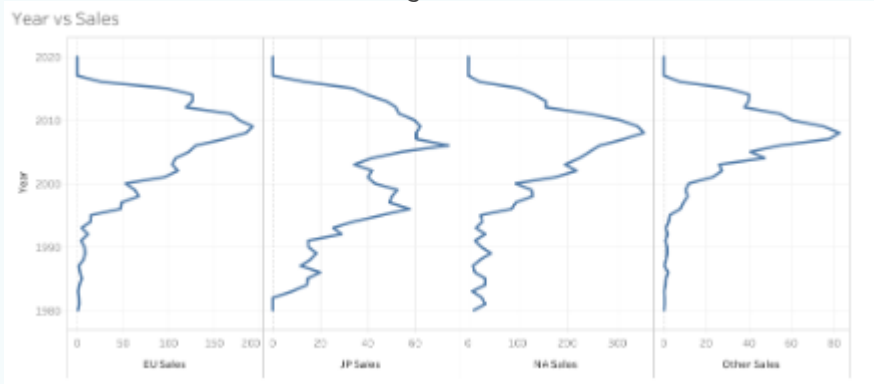
*NA Sales: 2008 with total sales of 351.44 million.*

*EU Sales: 2009 with total sales of 191.59 million.*

*JP Sales: 2006 with total sales of 73.73 million*

*Other Sales: 2008 with total sales of 82.39 million.*
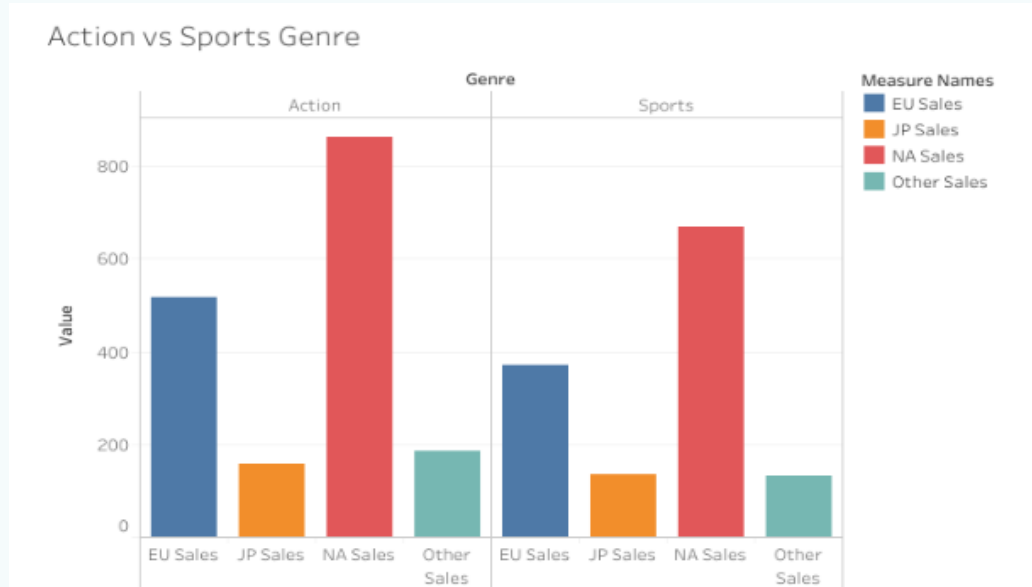
# 10. Action genre vs Sports genre.



*Figure 8*

*The top two genres experienced their greatest sales success in North America.*

# 11. Action genre vs Sports genre.

| Rank | Name | Platform | Year | Genre | Publisher | NA_Sales | EU_Sales | JP_Sales | Other_Sales | Global_Sales |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Wii Sports | Wii | 2006 | Sports | Nintendo | 41.49 | 29.02 | 3.77 | 8.46 | 82.74 |
| 2 | Super Mario Bros. | NES | 1985 | Platform | Nintendo | 29.08 | 3.58 | 6.81 | 0.77 | 40.24 |
| 3 | Mario Kart Wii | Wii | 2008 | Racing | Nintendo | 15.85 | 12.88 | 3.79 | 3.31 | 35.82 |
| 4 | Wii Sports Resort | Wii | 2009 | Sports | Nintendo | 15.75 | 11.01 | 3.28 | 2.96 | 33.00 |
| 5 | Pokemon Red/Pokemon Blue | GB | 1996 | Role-Playing | Nintendo | 11.27 | 8.89 | 10.22 | 1.00 | 31.37 |
| 6 | Tetris | GB | 1989 | Puzzle | Nintendo | 23.20 | 2.26 | 4.22 | 0.58 | 30.26 |
| 7 | New Super Mario Bros. | DS | 2006 | Platform | Nintendo | 11.38 | 9.23 | 6.50 | 2.90 | 30.01 |
| 8 | Wii Play | Wii | 2006 | Misc | Nintendo | 14.03 | 9.20 | 2.93 | 2.85 | 29.02 |
| 9 | New Super Mario Bros. Wii | Wii | 2009 | Platform | Nintendo | 14.59 | 7.06 | 4.70 | 2.26 | 28.62 |
| 10 | Duck Hunt | NES | 1984 | Shooter | Nintendo | 26.93 | 0.63 | 0.28 | 0.47 | 28.31 |
| 11 | Nintendogs | DS | 2005 | Simulation | Nintendo | 9.07 | 11.00 | 1.93 | 2.75 | 24.76 |
| 12 | Mario Kart DS | DS | 2005 | Racing | Nintendo | 9.81 | 7.57 | 4.13 | 1.92 | 23.42 |
| 13 | Pokemon Gold/Pokemon Silver | GB | 1999 | Role-Playing | Nintendo | 9.00 | 6.18 | 7.20 | 0.71 | 23.10 |
| 14 | Wii Fit | Wii | 2007 | Sports | Nintendo | 8.94 | 8.03 | 3.60 | 2.15 | 22.72 |
| 15 | Wii Fit Plus | Wii | 2009 | Sports | Nintendo | 9.09 | 8.59 | 2.53 | 1.79 | 22.00 |
| 16 | Kinect Adventures! | X360 | 2010 | Misc | Microsoft Game | 14.97 | 4.94 | 0.24 | 1.67 | 21.82 |
| 17 | Grand Theft Auto V | PS3 | 2013 | Action | Take-Two Interac | 7.01 | 9.27 | 0.97 | 4.14 | 21.40 |
| 18 | Grand Theft Auto: San Andreas | PS2 | 2004 | Action | Take-Two Interac | 9.43 | 0.40 | 0.41 | 10.57 | 20.81 |
| 19 | Super Mario World | SNES | 1990 | Platform | Nintendo | 12.78 | 3.75 | 3.54 | 0.55 | 20.61 |
| 20 | Brain Age: Train Your Brain in Minutes a Day | DS | 2005 | Misc | Nintendo | 4.75 | 9.26 | 4.16 | 2.05 | 20.22 |

*Table 3*

The publisher for all top 15 performing video games is **Nintendo.**

**Sports** is best-seller genre.

**Wii** emerges as the top performing platform.
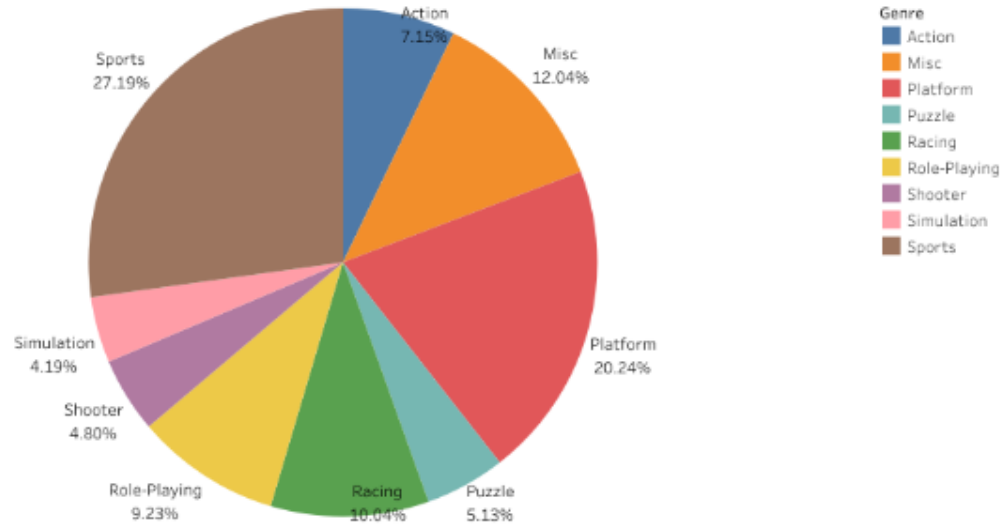
# Top 20 Video Games (Contd).



Figure 9.1

*Sports* stands out as the top-performing genre.
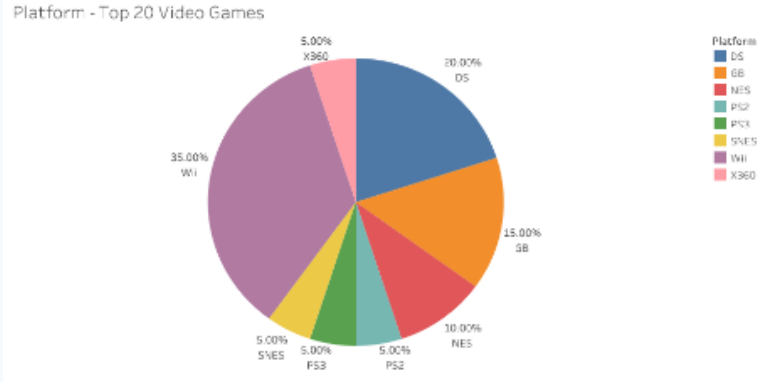
# Top 20 Video Games (Contd).



Figure 9.2

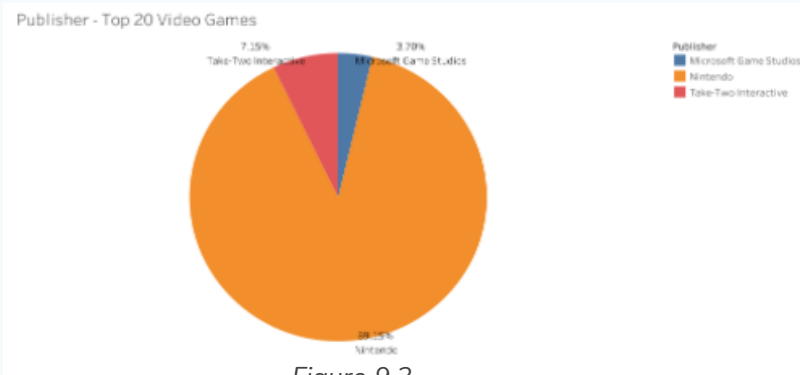*Wii* takes the lead as the top platform.



Figure 9.3

*Nintendo* emerges as the top publisher.

## 12. Does Genre/publisher/platform impact the sales of video game?

*As seen in the previous slides, Genre, Publisher and Platform affects video games sales.*

# Summary

# Summary of findings:

- **_Top 20 Video Games:_**

  _All 15 of the top video games are published exclusively by Nintendo._

  _The top 5 genres driving video game sales are Sports, Platform, Misc, Racing, and Role-Playing, respectively._

  _The top 4 performing platforms are Wii, DS, GB, and NES, respectively._

- **_Action genre vs Sports genre:_**

  _The top 2 genres in global video game sales collectively accounted for 34% (3032.12 million) of the total worldwide sales._

  _North America emerged as the region where both genres experienced their highest sales success._

  _Action genre recorded its lowest sales in Japan, while Sports recorded its lowest sales in other regions worldwide._

- **_Video game Genre/Platform/Publisher:_**

  _Genre, platform and publisher significantly impact video game sales. Notably, the Action genre dominates sales and ranking, while PS2 emerges as the top platform, and Nintendo leads as the premier publisher._

# Actions & Recommendations

# Recommended actions:

**Product recommendations:**

- To drive revenue, emphasis should be placed on the Action, Sports, and Shooter genres, which stand as the top three in video game sales.

- Publishing partnerships with Nintendo and Electronic Arts are recommended, as they are the top two publishers globally in terms of sales.

- Expanding game releases on platforms such as PS2, X360, PS3, Wii, and DS is advisable, given their status as the top five platforms with the highest sales worldwide.

- In the Japanese market, Role-Playing genre should be given top priority.

**Marketing recommendations:**

- Efforts to drive sales should primarily target the North American market.

- Campaigns and advertisements should be launched for underperforming genres such as Adventure, Puzzle, and Strategy. Offering discounts, where feasible, can help generate publicity,promote market acceptance, and ultimately boost sales and revenue.

- Conducting market research is essential to understand the factors behind the low sales of certain genres (Fighting, Simulation, Adventure,Puzzle and Strategy), platforms (SCD, NG, WS, TG16, 3DO, GG and PCFX), and publishers (Ascaron Entertainment, Boost On, Commseed, EON Digital Entertainment, Epic Games and Genterprise).

- Additionally, performing an industry analysis on other video game companies can provide valuable insights into the market landscape and competition. By integrating strategies learned from this analysis, efforts can be directed towards driving revenue, particularly for underperforming genres, platforms, and publishers.

# Thank you!