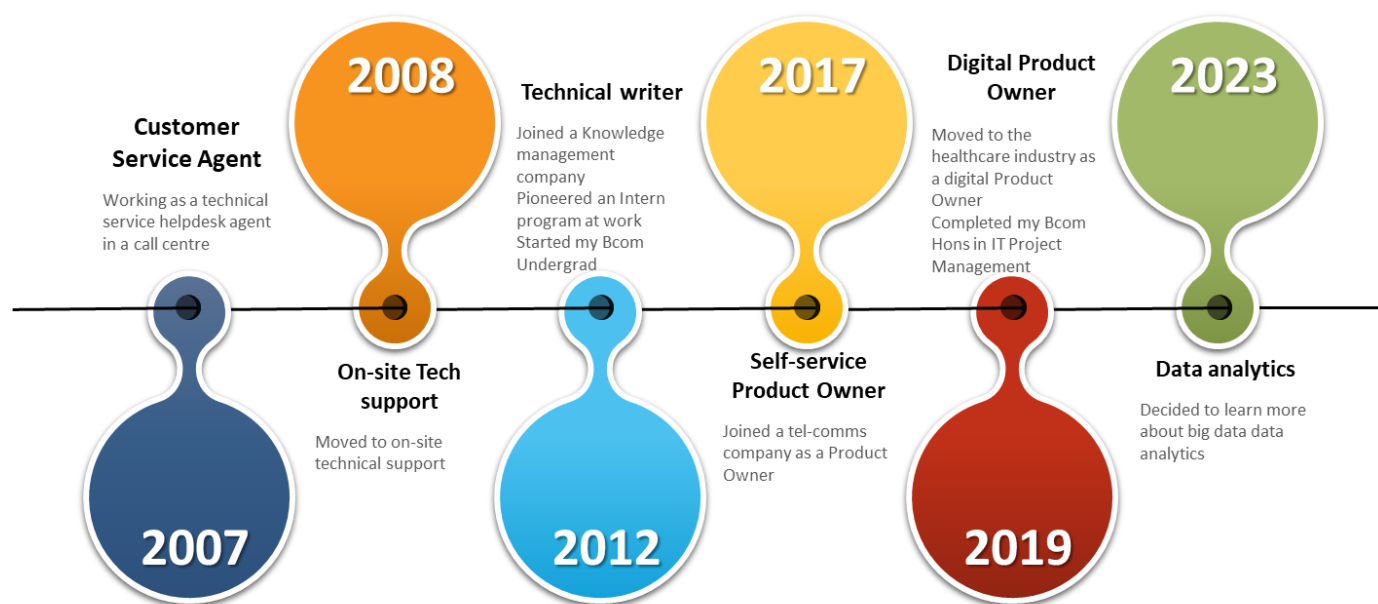# Data Analysis Portfolio

June 2023

PROFESSIONAL BACKGROUND:

I am a solutions-driven individual who is passionate about customer service, providing a solution in the shortest possible time frame and I am always looking to add value to both the business and the end users.

My cooperate work experience spans a period of 15 years, and in my career I have held various positions that focused on Customer Service, Knowledge management, IT service delivery and currently Digital transformation. In my career I have been fortunate enough to interact with individuals at varying levels from junior staff to C-suite executives, which has been pivotal in my growth.

I look forward to challenges and thrive in high pressured environments. I recently completed a post-graduate degree in IT Management, and as someone who believes in continuous self-development I have started a journey in Data analytics. I have always had an interest in the power of data as well as the insights and decisions that can be drawn from data.

2008

Technical writer

Joined a Knowledge management company
Pioneered an Intern program at work
Started my Bcom Undergrad

2017

Digital Product Owner

Moved to the healthcare industry as a digital Product Owner
Completed my Bcom Hons in IT Project Management

2023

Customer Service Agent

Working as a technical service helpdesk agent in a call centre

On-site Tech support

Moved to on-site technical support

Self-service Product Owner

Joined a tel-comms company as a Product Owner

Data analytics

Decided to learn more about big data data analytics

2007

2012

2019

Video Game Sales Data Analysis

PROJECT DESCRIPTION:

The purpose of this report is to analyse the data for video games including sales, the platform and video game genres across the following regions:

- North America

- Europe

- Japan

- The rest of the global regions

By analysing this data, it will help us to:

- Understand the sales trends and identify which region(s) has the most video games sold

- Which video game genre(s) is/are the most popular?

- Recommend marketing strategy for the low performing regions on how to improve revenue

- The most popular gaming platform(s) among gamers

- Get insights on the video game buying trends across the globe

DATA ANALYSIS PROCESS

In order to be able to get more insights on the video game industry, I had to source the data first, and this was done via Kaggle as the primary data source. I then began the data analysis process by studying the global video game sales and cleaning up the Excel data set. This process includes removing any data that might skew the final results such as blank or incomplete data cells; duplicated information and fixing and unstandardized data. This data was cleaned and analysed using Microsoft Excel.
Tableau and Excel were the primary tools used to visualise the findings which have been shared in this report.

FINDINGS & INSIGHTS

1. Total sales breakdown per region

- As indicated in the table breakdown below, North America is the leading region with the highest number of video games sold, a total of $4392,75 mil. This is makes up 49% of the total global sales

- It is also important to note that the rest of the global sales combined are significantly lower than the any other region. This could be due to a host of different factors such as low demand. The rest of the global sales only account for 9% of the total global sales

- It is also interesting to see that the video game sales for Europe alone almost match the sales of the rest of the globe combined

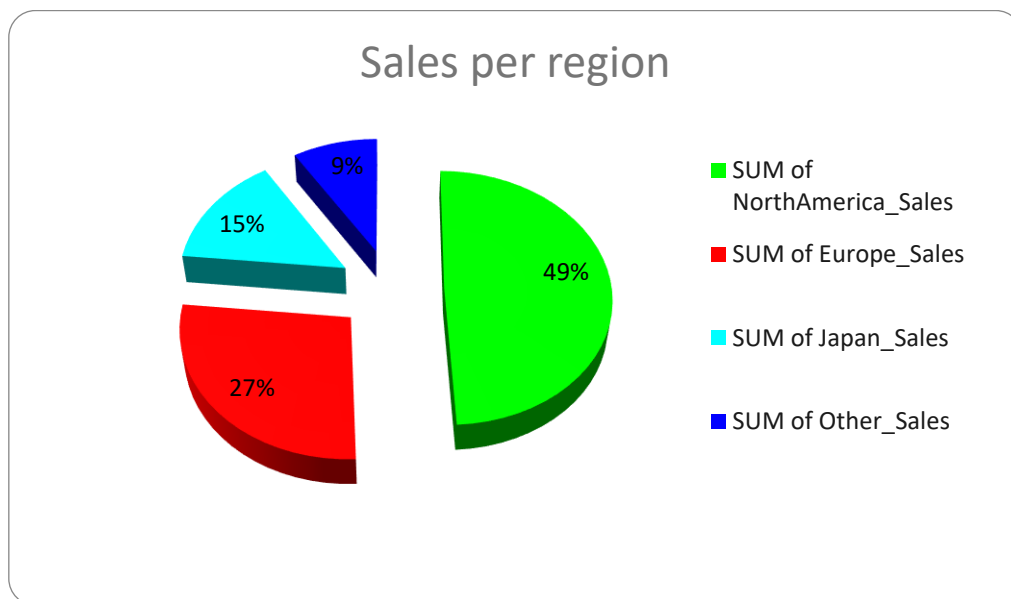| Values	Sales (mil)
SUM of North America_Sales	4392,75
SUM of Europe_Sales	2433,97
SUM of Japan_Sales	1290,01
SUM of Other_Sales	797,64
Total Sales	8914,37

Table 3

Figure 7

2. Most popular video game genre

- As indicated in the graph below, the most popular video game genre is 'Action'
- This breakdown is based on all global sales. A breakdown of video game sales by genre in the different regions is depicted in the next slides
- Educational or problem solving video games such as 'Puzzles' or 'Strategy' are not very popular among gamers with the least amount of sales of 571 and 671 respectively

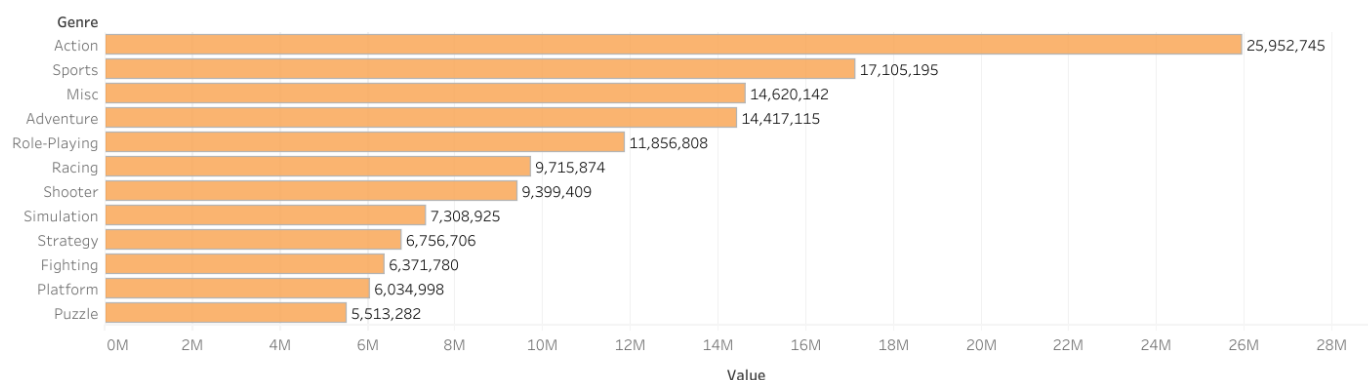| Genre	Global Sales
Action	25952745
Sports	17105195
Misc	14620142
Adventure	14417115
Role-Playing	11856808
Racing	9715874
Shooter	9399409
Simulation	7308925
Strategy	6756706
Fighting	6371780
Platform	6034998
Puzzle	5513282
Grand Total	135052979

Table 4

Global Sales by Genre

Figure 8 (Tableau)

3. Regional video game sales by genre

- As shown in the table below, the most popular genre is 'Action' across all regions and globally as a result, making up 19% of the total global sales by genre
- It also stands to reason that since North America had the highest number of video game sales, it also has the highest number of sales by genre as well.
- The Action genre video games is also performing well even in the rest of the globe even though the sales are not that high
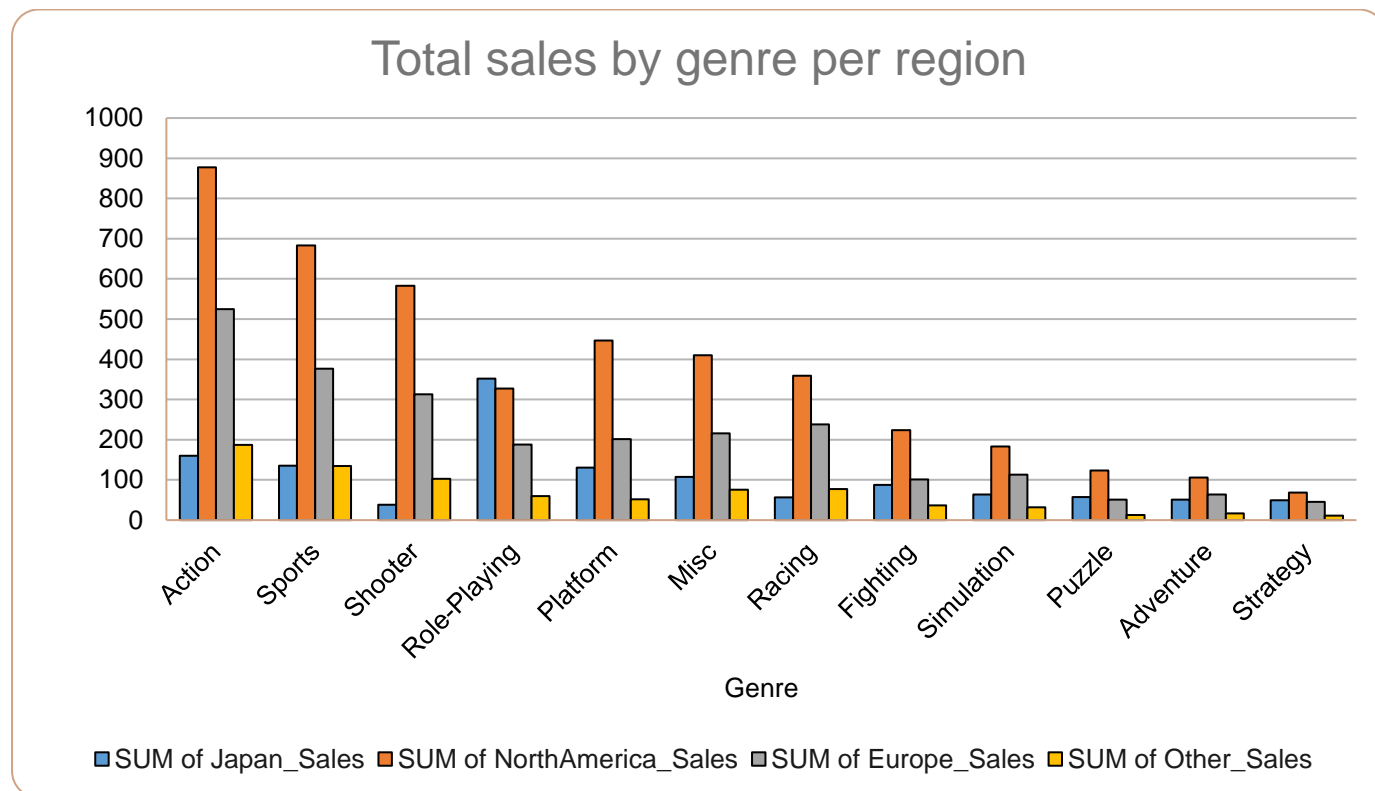- The top 3 genres are 'Action'; 'Sports' & 'Shooter' video games

Figure 9

4. Which years had the highest video game sales?

- The most popular year in the gaming industry was in 2009, where there were 2870861 games developed globally across the different publishers
- 2020 was the worst performing year when it comes to the number of video games developed, with numbers lower than in the 1980's.
- This is an interesting fact because even though there was a pandemic, online video games could still be developed and sold
- The 1980's generally had low number of games produced probably due to the technology, and accessibility of video games.
- It is also important to note that the video game sales across all regions started a downward trajectory from 2015, with 2020 being ultimately the lowest sales

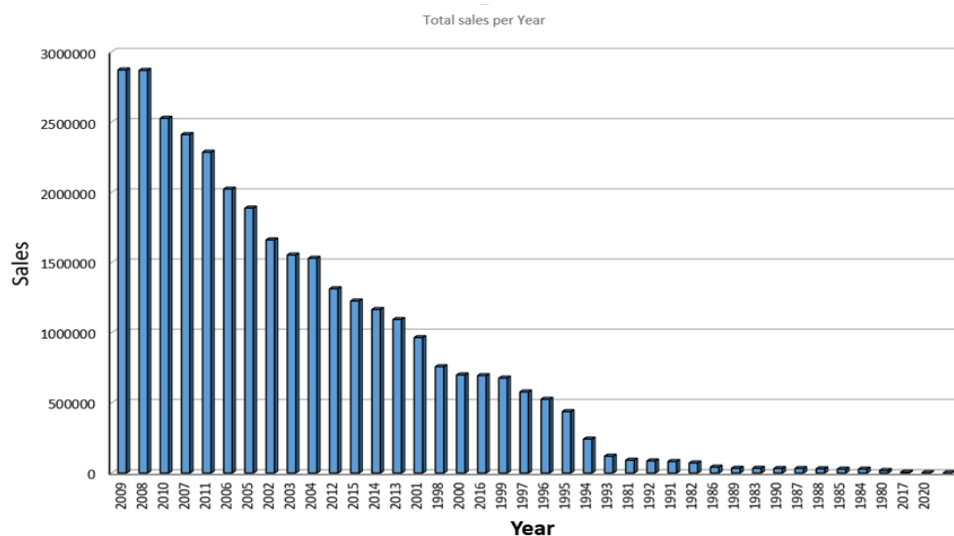| Year	Sum of sales by Year
2009	2870861
2008	2867424
2010	2526570
2007	2410407
2011	2284496
2006	2022048
2005	1886705
2002	1659658
2003	1552325
2004	1529052
2012	1311824
2015	1225120
2014	1164092
2013	1093059
2001	964482
1998	757242
2000	698000
2016	693504
1999	675662
1997	577133

Table 5

Figure 10

5. What are the most popular video games publishers & platform?

- According to the data, the Wii Sports game is the most popular game to-date
- We can also note that the most popular games were all published before the year 2010
- Nintendo is responsible for publishing the top 10 most popular games to date
- Half of the most popular games globally were available on the Wii platform, however this overall data set paints a different picture when it comes to the most popular platform

Video Game Name	Platform	Year	Genre	Publisher	Global_Sales
Wii Sports	Wii	2006	Sports	Nintendo	82.74
Super Mario Bros.	NES	1985	Platform	Nintendo	40.24
Mario Kart Wii	Wii	2008	Racing	Nintendo	35.82
Wii Sports Resort	Wii	2009	Sports	Nintendo	33.0
Pokémon Red/Pokémon Blue	GB	1996	Role-Playing	Nintendo	31.37
Tetris	GB	1989	Puzzle	Nintendo	30.26
New Super Mario Bros.	DS	2006	Platform	Nintendo	30.01
Wii Play	Wii	2006	Misc	Nintendo	29.02
New Super Mario Bros. Wii	Wii	2009	Platform	Nintendo	28.62
Duck Hunt	NES	1984	Shooter	Nintendo	28.31

Table 6

Most popular video game platforms
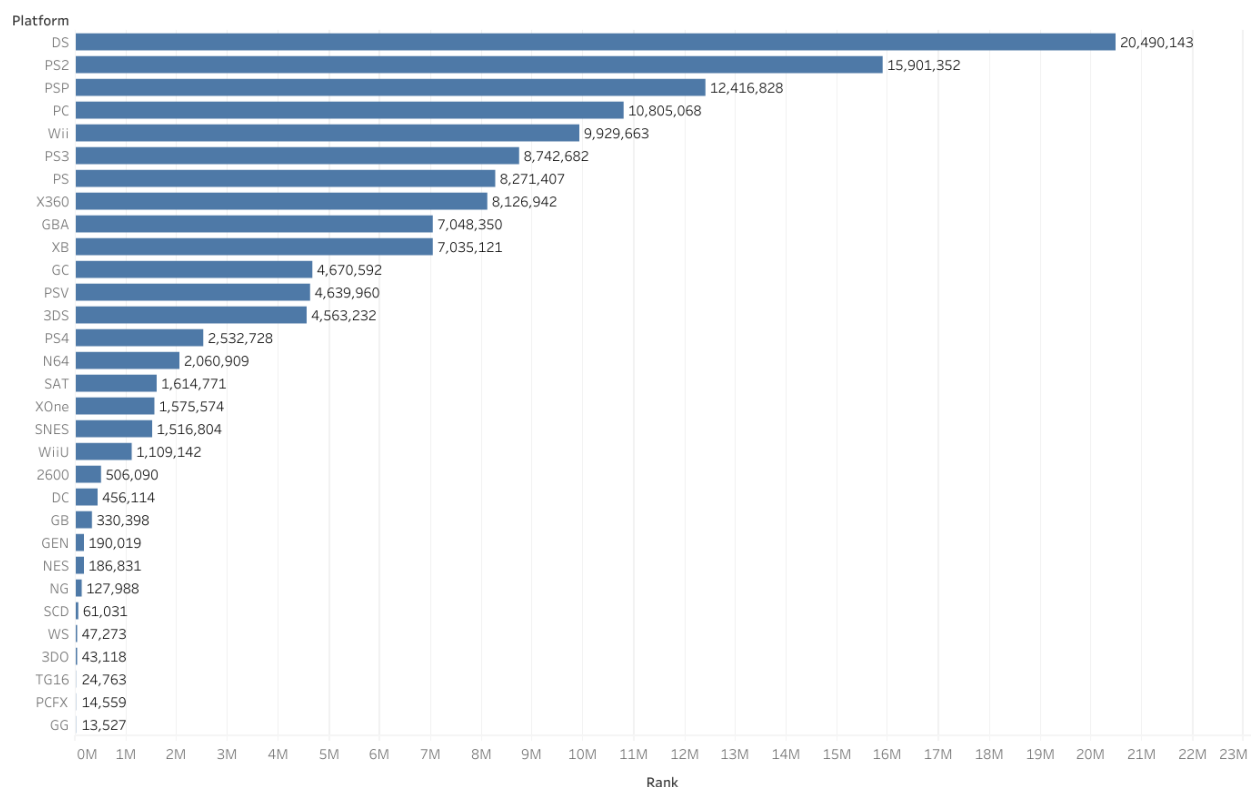
Sum of Rank for each Platform.

Figure 11 (Tableau)

- The Nintendo DS is the most popular platform preferred by publishers with 2133 games created on this platform, closely followed by the PS2 with 2126 games hosted on this platform.
- It is interesting to note that the PS2 platform is still the most popular in the Play Station console line in comparison to the other, more recent PS consoles

SUMMARY OF FINDINGS

- **Sales:**
  - North America has the highest video game sales globally, making up almost half of the total sales
  - 'Action' is the highest grossing genre among the video game genres that have been published to date
  - There has been a continuous drop in video game sales globally since 2016, this could be due to a number of factors such as inflation and shortage of vital components
  - The year that saw a boom in game sales was 2009

- **Product:**
  - The Nintendo DS is the most popular gaming platform, closely followed by the Play Station 2
  - Based on the data, Nintendo has developed the most popular video games to date
  - The most popular video games were all published before the year 2010

ACTIONS & RECOMMENDATIONS

Product recommendations:

- In order to potentially increase revenue, publishers should focus on the most popular genres, perhaps the Top 5 and phase out the less popular genres
- Publishers need to look at potentially increasing the number of video games developed to the same levels as before 2016. An increase in product availability will tend to result in an increase in revenue
- Publishers should also consider eliminating the less popular video game platforms such as the GG; PCFX; TG16 and rather focus on the top 5 platforms.

Marketing recommendations:

- Increased/targeted marketing and promotions in the regions that have lower video game sales could improve revenue/profits globally
- Intense market research to be conducted to ascertain the reasons behind the decline in video game usage
- From a marketing perspective it would also be insightful to gather some demographic data on the customers buying these video games, for example, age, gender. This might assist in predicting future market trends, target audience and also creating a comprehensive buyer profile

Thank you