1.10 Storytelling with Data

Intro to Data Analysis

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In this analysis I explore the video game sales dataset to provide GameCo with actionable insights for their upcoming games. My main objective is to assess the popularity of different game genres and understand trends across geographic regions, in order to inform marketing strategies in 2017.

I will focus on determining how sales have changed overtime with shifts in markets, with various hypotheses for future actions, and how regional trends and markets can be key to GameCo's strategies.

After cleaning the data, I have focused on grouping the data through exploratory analysis to understand the data itself and its relationship to different sections and to the whole.

## Project Reflections: Process and Insights

One of the first explorations was platform sales by region and genre. I grouped the data by platform and region (e.g. PlayStation in North America) to compare total units sold across different regions for each platform. I aggregated the sales figures, using sums to determine total sales per platform per region, this highlighted platforms that were leading in specific regions giving us an insight into regional trends and also uncovered some local brands that were not present in other regions (e.g. Ws, GG and 3DO only present in Japan.

One of the key analyses was genre popularity across regions where I grouped sales data by region to observe the most popular genres in each market. This comparison highlighted unique preferences, such as role playing in Japan. Examining genre popularity in each region can
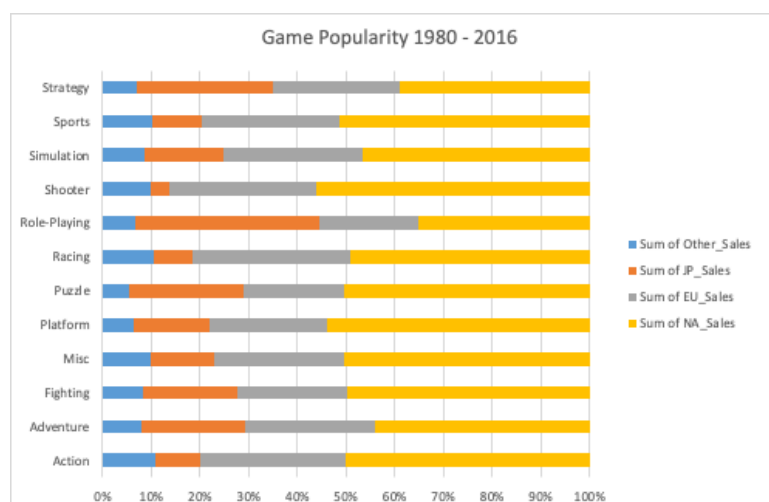
help us uncover market specifications.

I calculated the sum of the sales to then compare then in a 100% bar chart, this allows us to visually understand the difference between regions.
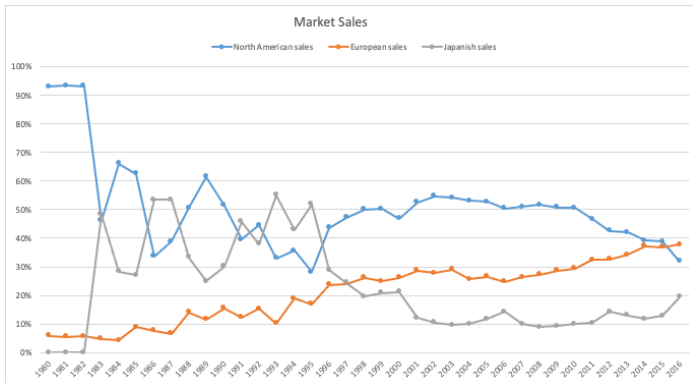

Grouping sales distribution by year, with a further sub-grouping by region, helps us to track regional trends over time. The data shows growth patterns with European sales overtaking North American sales by 2016. These line graphs, which are ideal for showing year-on-year changes, help us uncover a surprising shift in sales. We may mistakenly believe that North America will dominate the market due to its larger population, but recent data shows otherwise and we should consider future strategies accordingly.

I used box plots to explore the distribution of sales and outliers. Initially I grouped the sales data in North America to calculate the mean, median, Q1, Q3 and outliers, but I expanded to a regional comparison of markets. As the data shows, the markets are positively skewed, meaning that there are few high revenue games and a large number of medium to low revenue games that make up the market.
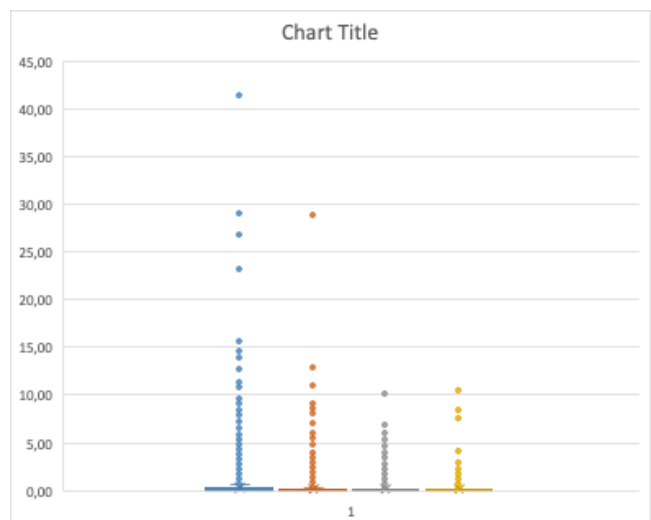
Visualisations for the Final Presentation

Market Sales 1980 - 2016
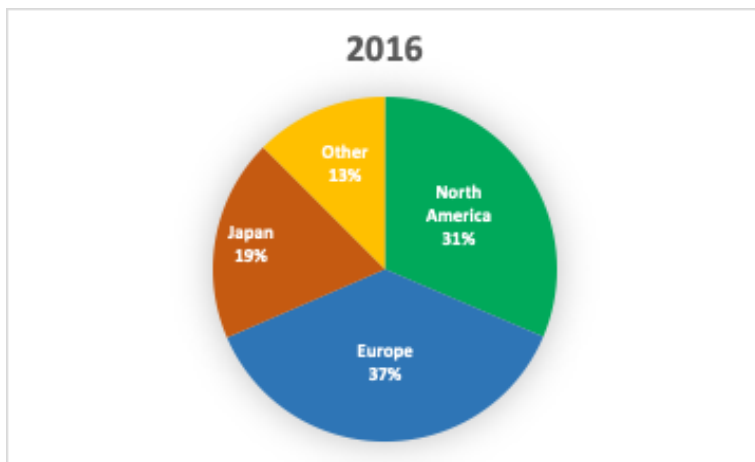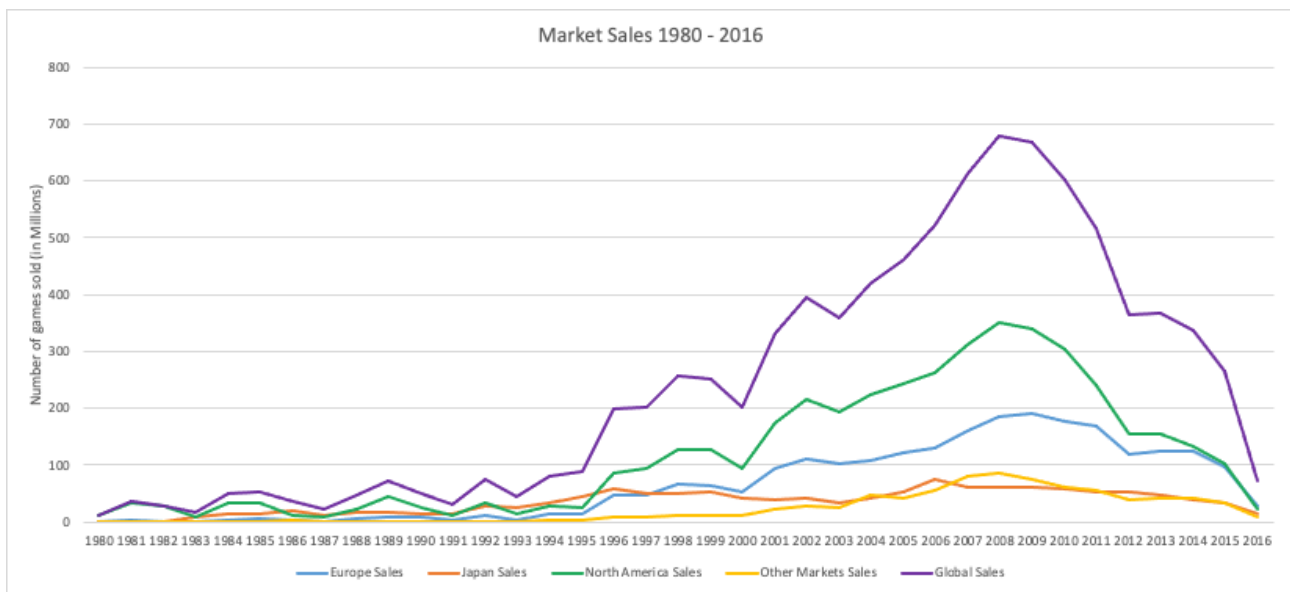
2016

I added two graphics to contextualise the evolution of the markets in relation to global sales, as well as a pie chart to represent sales in 2016. I am still using the original one but polished the labels and information about other markets. Personally I feel that to create a complete narrative around data context is a key element.

This complete overview of sales in time would help the board of GameCo grasp the changes in sales across the different regions and would give a helpful overview at first glance.

I'll add a doughnut chart to illustrate genre popularity to give context to the original genre 100% bar chart.

I would add another stack bar chart to show the platforms in 2016 by region, where the data shows that there are cases of regional tendencies.

This 2016 chart illustrates the distribution

Genre popularity 2016

of platform sales across major regions. Since the peak in 2008, the video game market has
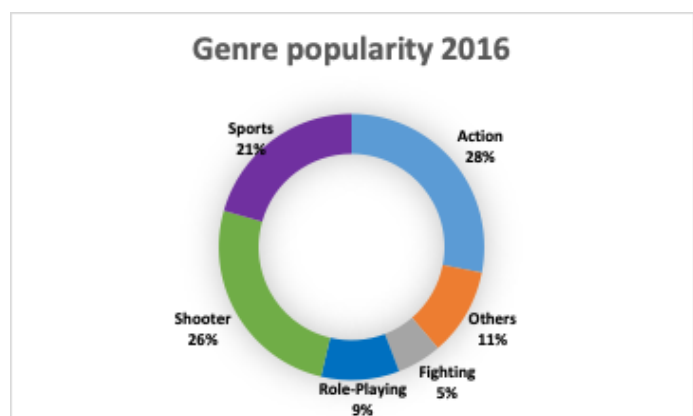
experienced a significant contraction, with sales dropping by about 90% and a notable reduction in the number of publishers and platforms. Fewer publishers, 75,9% less, now dominate a shrinking market and fewer platforms are available for game releases.

Platform Sales 2016

Platform evolution 1980 - 2016
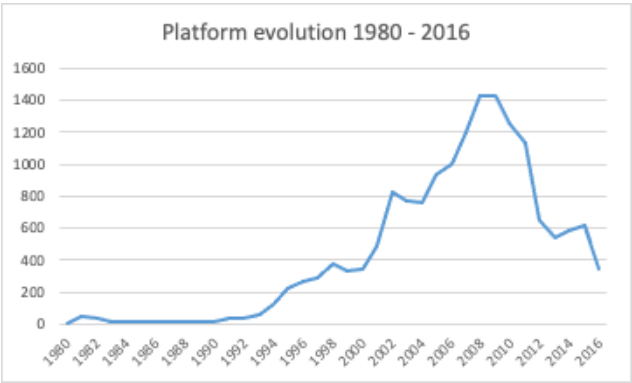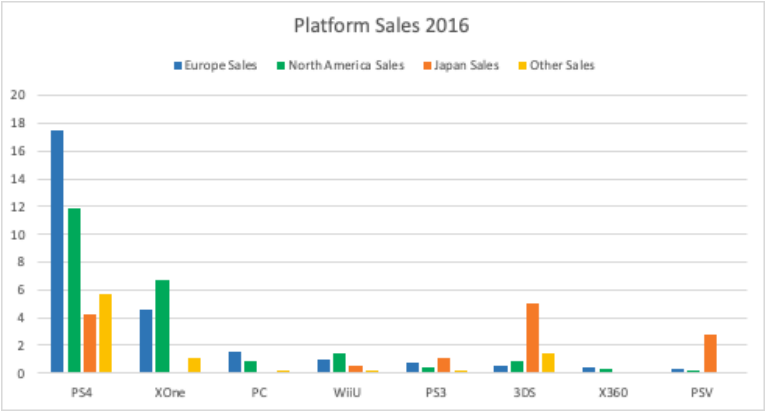
This decline reflects broader shifts in the industry, particularly the consolidation of market power among fewer publishers and the dominance of fewer platforms, likely influenced by the rise of online gaming. The contrast between the expansive growth of earlier years and the sharp reduction by 2016 highlights the transformation of the gaming landscape.

Polished final graphics

Market Sales

Game Popularity 1980 - 2016