

The Data Analysis Report: Video Games Sales Data

Task given : Video games sales dataset was given to perform exploratory data analysis and visualize the findings to draw conclusions.

Critical Analysis Plan Components

Dataset Description :

The dataset consisted of 13 columns and 1907 rows with a total of 24791 data points. It consisted the information of the sales of different video games in North America, Europe, Japan and other parts of the world corresponding to the year being sold with it's ranking and reviews. It also comprised the details of platforms, publishers and genres for each games.

Purpose :

Performing exploratory data analysis on the given data enables us to identify the best selling video games in terms of genres, platforms and publishers helping us understand the year wise preferences of people across the globe.

Dataset Cleaning :

The data consisted of 29 missing values for the year out of which 25 were unique. Since the values would be random, dropping was done for missing values. Modified the values of the global sales as it consisted of some incorrect values.

Critical Analysis Plan Components

Exploratory data analysis :

- **Region-wise average sales**

North America had the highest sales which was found to be lesser than the total sales other countries without considering the sales in Japan and Europe.

- **Best performing platforms**

The second release of Playstation, PS2 has recorded most copies purchased over 800 million followed by Wii.

- **Region-wise best platforms**

North America being recorded the highest sales has been using the top preferred platform PS2 to the most.

- **Platform performance over years**

Versions of Playstation has been used by the people with it's updated release in each period. PS was majorly used between 1997 and 1999 followed by PS2 and PS3 with PS2 showing the best performance.

- **Region-wise best publishers**

Nintendo has been the best publisher globally with nearly 700 million sales in North America alone followed by electronic arts. Among the top 5 publishers, Nintendo and Sony Entertainment are founded by Japan and are most widely used by Japanese contributing the least sales to other publishers.

- **Most preferred genre**

The gamers are observed to be more interested in sports followed by action and are least interested in strategy and puzzle oriented games.

- **Region-wise best genre**

Most regions prefer sports and action based games whereas Japanese have a different taste from all other regions preferring role play and platform based games. 50% of the total sales of games based on action genre is sold in North America.

- **Top games by global sales**
The most played game is the Wii Sports accounting to 22.4% of the global sales, followed by Super mario with 11.1%.
- **Region-wise best selling games**
Most of the games were released between the years 2007-2008. The number of games released reached a peak in 2008 and suddenly dropped in 2009 and further.
- **Sales over years**
The maximum of the games was recorded in the year 2008. This follows a pattern of with more number of games being published, the global sales is more and it drops when less number of games are published. As there is a sudden drop in releasing of new games in 2009, it affects the sales to a greater extent and sales drops in 2009 and further.
- **Observation during the peak sales**
Mario Kart Wii has been sold the most during the peak sales in the year 2008. Most people have shown interest in Racing and the best used platform is Nintendo.
- **Review based analysis**
The reviews are high for the least sold games which might misguide the analysis. The best reviewed games majorly fall in the platform genre and the sports genre has a lot of outliers.

KEY FINDINGS

- ❖ North America accounts for the highest sales across the globe
- ❖ Video games sales success is highly dependent on its sales in North America
- ❖ Lifespan of a platform appears to exist approximately 6 years from the release to begin of the decline.
- ❖ Action games are the most popular gaming genre
- ❖ Japanese people have a different taste when compared to other people in the world
- ❖ Nintendo is undoubtedly the best publisher across the globe
- ❖ Marketing proximity is observed in Japan, as Nintendo and Sony Entertainments are the massively selling publishers, as these are headquartered in Japan and Pokemon is most played game.
- ❖ Wii sports is the best selling games as it was released during Winter olympics and attracted players to sports genre.

CONCLUSION

This report summarizes the top games, platforms, publishers, genres for different regions. The results will be beneficial in improving both sales and customer satisfaction.