



VIDEO GAME MARKET VISUALIZATION PROJECT

Individual Project

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[Link to Tableau Workbook](#)

https://public.tableau.com/profile/chia.lun.chen#!/vizhome/Cchen_Console_Video_Game_Analysis/Market_Overview

[Link to Github](#)

https://github.com/jojopoopoo/cchen_individual_project

Project Summary:

In this project, I am working with a dataset “Video Game Sales” ranking 16,000+ video games sales performance. Combined with another dataset console video game platform, I analyzed the performance sales performance (in millions of units) for both video games and console platforms. I started by explaining the datasets, process of data cleaning, data exploration and how I formed and reevaluated my claim. Finally, I addressed the intended audiences for this project and the actions suggested by this visualization.

Datasets:

There are two datasets in this project.

- “Video Game Sales” ranking 16,000+ video games sales performance. The dataset included the name of the game, the year it was published, publisher, genre, platform, and sales performance globally and in four regions.
- “Platform Totals” provides video game console unit sales (in millions) from start to date. The dataset included sales performance globally and in four regions and the year it first became available.
- Worldwide Virtual Reality revenue by segment provides the forecasted VR revenue till 2020 (in billions USD).

Data Cleaning

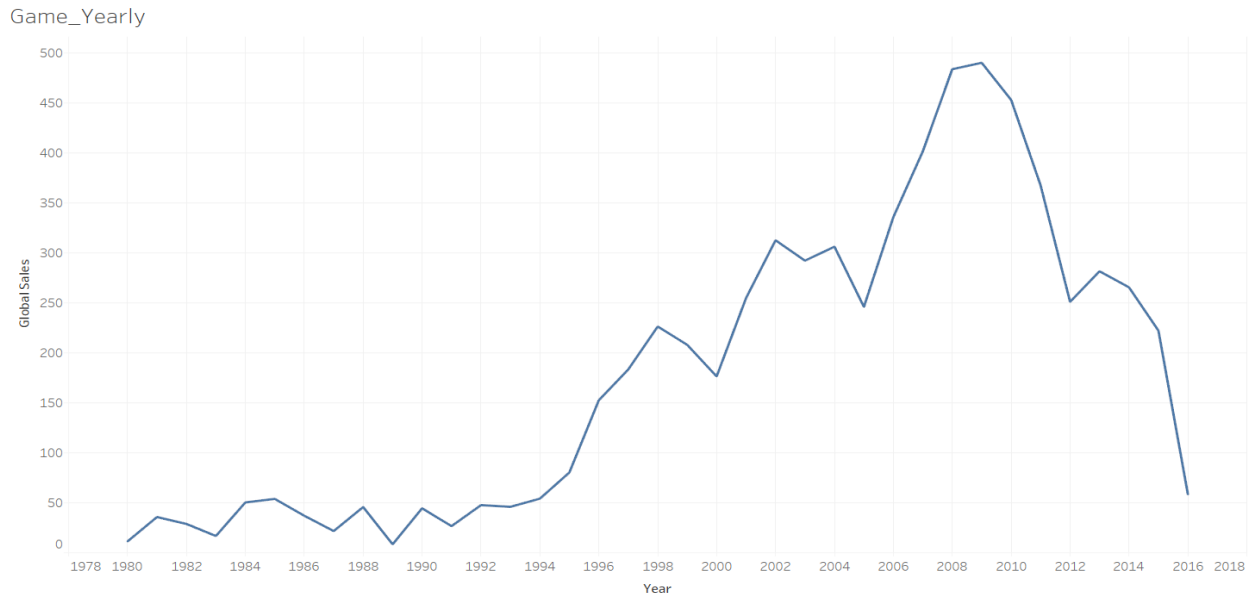
Below are the steps I proceeded in cleaning up unwanted data:

- Drop game sales data related to handheld devices. Because of the many differences between handheld and console video game devices (e.g. price, target group, etc.), I felt it was not fair to mix the devices up. I cross-referenced the platform (video game sale) with the platform from platform totals dataset and only kept the value of the games on console devices.
- Converted the Year column in video game sales dataset to String (it was float, to me, String would be a better data type).
- I wanted to know the sales of platforms released in different years to observe whether there is a decline for platforms release more recent, I normalized the platform global sales data. To do so, I created a parameter of 5-15 representing the amount of years a platform is supported for (note: companies are not going to support a platform forever, the estimated years of support in the parameter acquired from the article in Reference 1). How I normalized it was to get the yearly global sales assuming consistent sales for every year. If the year of the platform existed was more than the parameter, the normalized data was calculated by global sales/parameter, and if the year existed was less than the parameter, the normalized data was calculated by global sales/year existed.

Data Exploration

When I first started analyzing the data, my original claim was that video game console market is declining because we are surrounded by many technologies today and console video games are not as interesting anymore as it was years ago.

I started by plotting the global yearly sales for video games. Shown in Graph 1, we can see that the global sales for video game peaked around 2009 and went downward quickly.



Graph 1.

I also plotted the performance of the best-selling platforms.

Platform_Global

Platform..	
PS2	157.7
Wii	101.2
PS	104.3
PS3	86.8
X360	85.8
XB	24.7
PS4	56.7
GC	21.7
SNES	49.1
N64	32.9
XOne	29.0
NES	61.9
2600	27.6
WiiU	13.9
SAT	8.8
GEN	29.5
DC	8.2
GG	10.6
3DO	0.0
NG	0.0
PCFX	0.0
SCD	0.0
TG16	0.0

Graph 2.

At this point, it seemed the global sales of both platform and games are going down. Next, I moved to the normalized data.

I used the parameter of Year Supported (5 – 15 years) with the Calculated field for Platform and Game and created normalized global sales performance for each one of them. However, I found out that recent released platforms are not doing any worse (in yearly sales) than the ones released in the earlier years if we make the year supported to longer years. Same goes to games. After seeing these graphs, I did some more research and reevaluated my claim. I found out that recent platforms like PS4 experienced increase due to the announcement of new technology (VR being one of them) and new model release. As a result, my finalized claim for this project is below:

Claim: Console video game market is not dead yet. However, we see many media portrait it as dying. What are some possible sale/marketing strategies we could increase the performance of the whole market?

Target Audience: As a sales director in the console video game platform company, we want to understand our current market and know what is the best strategy for future product release to achieve max profits.

Warrant:

- It would have been a very strong warrant to plot the VR video game presence against the overall video game market. However, the specific data of VR in video game is not very complete because it is a very new technology. As a result, I plotted the market forecast for the VR market.
- PS4 has been showing strong sales performance (released in 2013). If it keeps the sales momentum since its release, it could surpass other historically top platforms like PS2 and Wii.

- I plotted the genre performance in various regions in the world and found out the genre of games popular in each region and the video game companies excelling in popular genre. As a result, we as the leading console video game platform company, it could be a future marketing strategy to partner with the video game maker and bundle the platform and game to attract the most users.

Reference

Datasets:

<https://www.kaggle.com/gregorut/videogamesales>

<https://s3-us-west-2.amazonaws.com/cchenscubucketone/contact.html>

<https://mmos.com/editorials/virtual-reality-so-far-according-to-superdata-research>

Articles:

<https://qz.com/666299/the-golden-era-of-video-game-console-sales-is-over/>

<https://s3-us-west-2.amazonaws.com/cchenscubucketone/contact.html>

<http://www.gamesradar.com/ps4-camera-sales-surge-after-sony-reveals-you-need-one-playstation-vr/>

<https://www.geekwire.com/2017/xbox-one-tops-playstation-4-u-s-sales-second-half-2016/>