

# UNCOVERING THE GAMING INDUSTRY'S HIDDEN GEMS:

## A COMPREHENSIVE ANALYSIS OF VIDEO GAME SALES

### INTRODUCTION

Video games are popular all over the world. They are enjoyed by all ages. Video game industry is huge and the spending on video games per year is huge too. Sales of different types of games vary widely between countries due to local preferences. According to the market research firm Super Data, as of May 2015, the global games market was worth USD 74.2 billion. By region, North America accounted for 23.6 billion dollars, Asia for 23.1 billion dollars, Europe for 22.1 billion dollars and South America for 4.5 billion dollars. There are different genres, publisher and platforms for video games. This project relates to the sales of these video games based on different regions and analyzes the sales. Also I have analyzed which genre, platform or publisher is the most popular and has maximum number of sales.

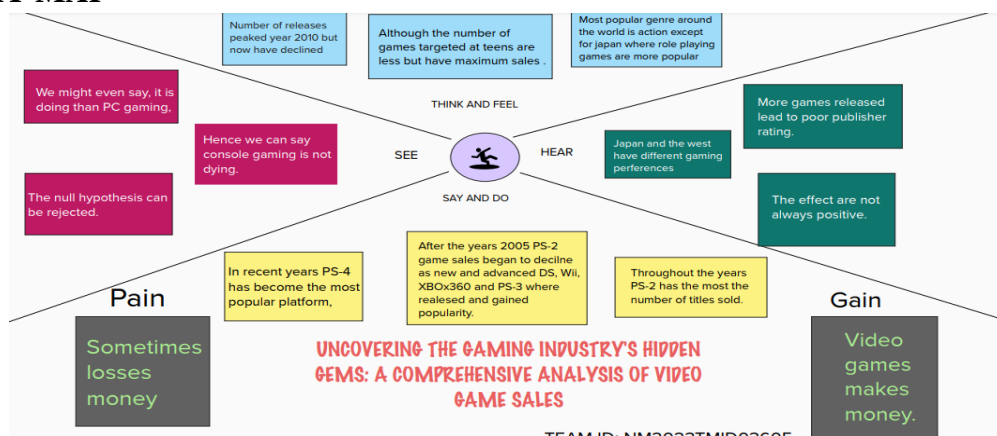
### 1. Overview of the project

In this the main goal was to analyze the sales of video games in different regions. The regions are North America, Europe, Japan, other countries (combined) and then the global sales(total of all the regions). The main idea was to visualize the sales for different genres, publishers and platforms. This would give the basic idea about the most popular genres, publishers and platforms amongst all. Also analyzing the effect of genres on sales in different regions.

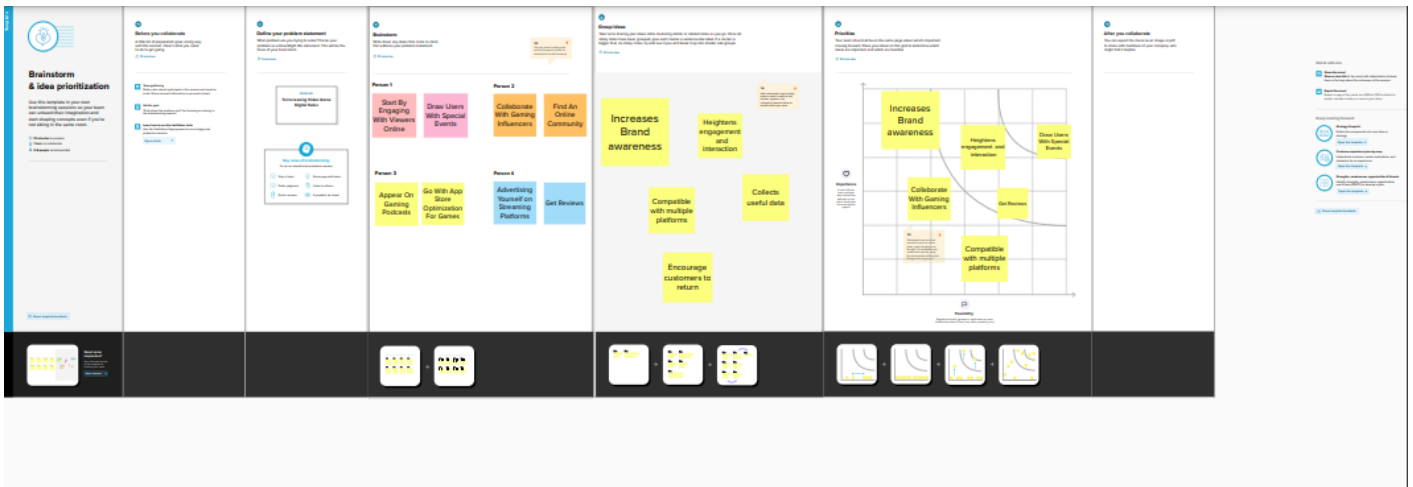
### 2. Purpose

The main purpose of this project is to find out the contributing factors that lead video game sales becoming blockbuster. The collected dataset consisting of approximately 1,800 observations relating to individual video games titles released across a various platforms. This project used to identify trends and patterns in the market, and to make informed decisions about the development and marketing of video games.

### EMPATHY MAP

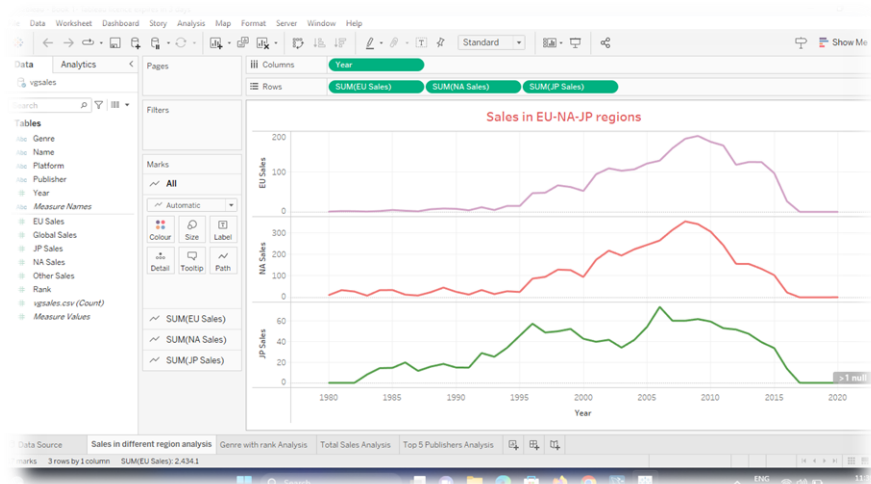


# IDEATION AND BRAINSTORMING



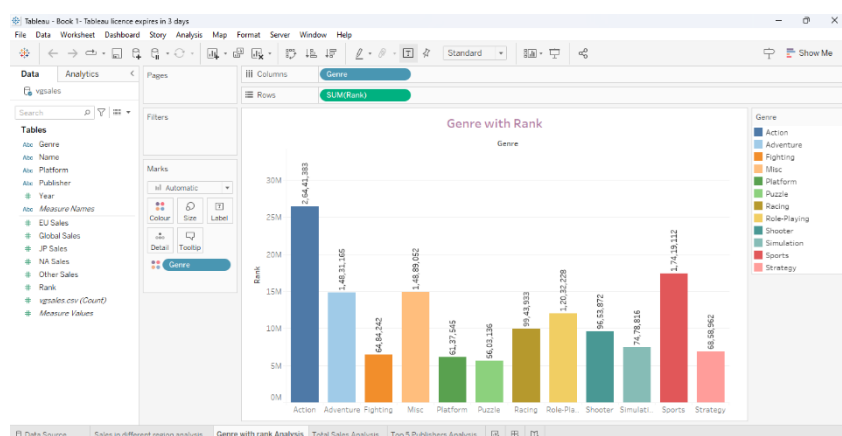
## RESULT

### 1. SALES IN DIFFERENT REGIONS :



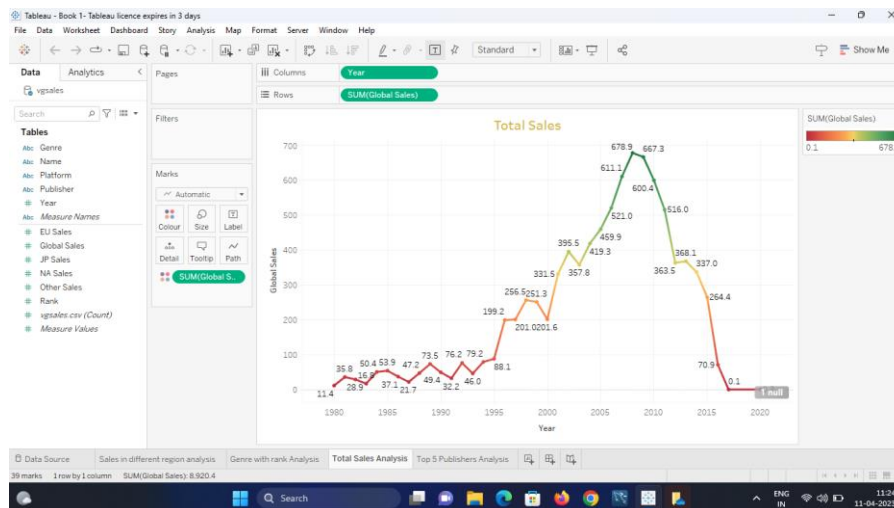
In the first sheet , we visualizing the sales in different regions that is Europe, Japan and NA regions and from 1980 to 2000 were moderate ,from 2005 to 2010 is attained it's maximum and from 2015 to 2020 is gradually decreased.

### 2. GENRE WITH RANK:



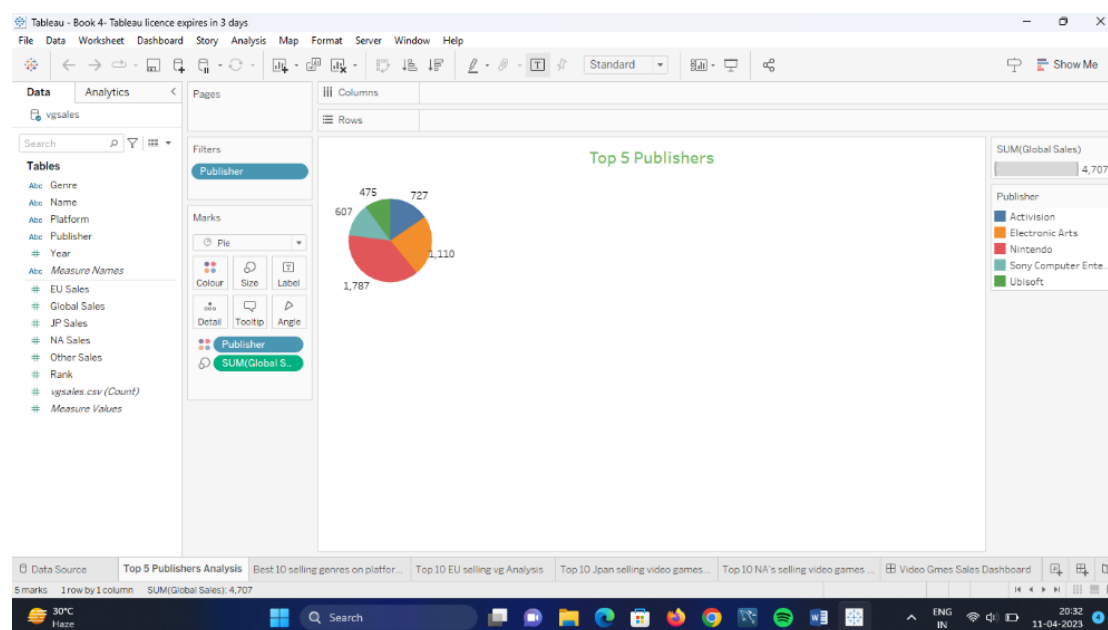
Consider the chart ,(Genre with Rank) compared to all games **action games**(2,64,41,383) and **sports games**(1,74,19,112) were more sold .These are the genre available in our data set Action, Adventure, Disc and so on.,

### 3. TOTAL SALES:



In this graph , from 1980 to 2005 all sales increases gradually, in between 2005 to 2010 sales attained it's peak & from 2010 to 2020 sales were gradually decreases.

### 4. TOP 5 PUBLISHERS :



### 5. BEST 10 SELLING GENRE ON PLATFORM:

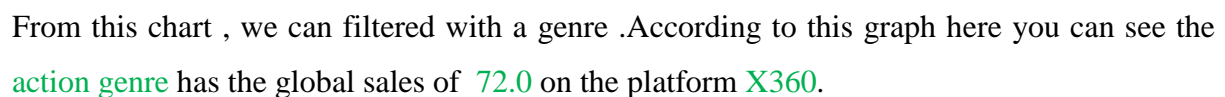


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Columns Rows SUM(EU Sales)

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Name

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Colour Size Label

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Name

Top 10 EU selling Vg

EU Sales

Wii Sports  
Grand Theft Auto V  
Mario Kart Wii  
FIFA 15  
Call of Duty: Modern  
FIFA 16  
FIFA 14  
Call of Duty: Black O.  
Wii Sports Resort  
Nintendogs

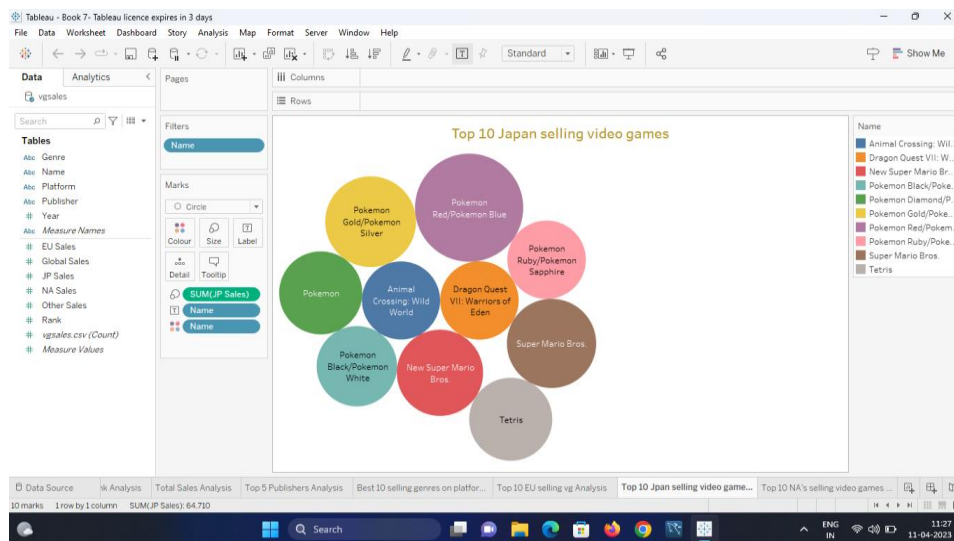
Data Source Sales in different region analysis Genre with rank Analysis Total Sales Analysis Top 5 Publishers Analysis Best 10 selling genres on platfor... Top 10 EU selling vg Analysis

20 marks 1 row by 1 column SUM(EU Sales) 144.12

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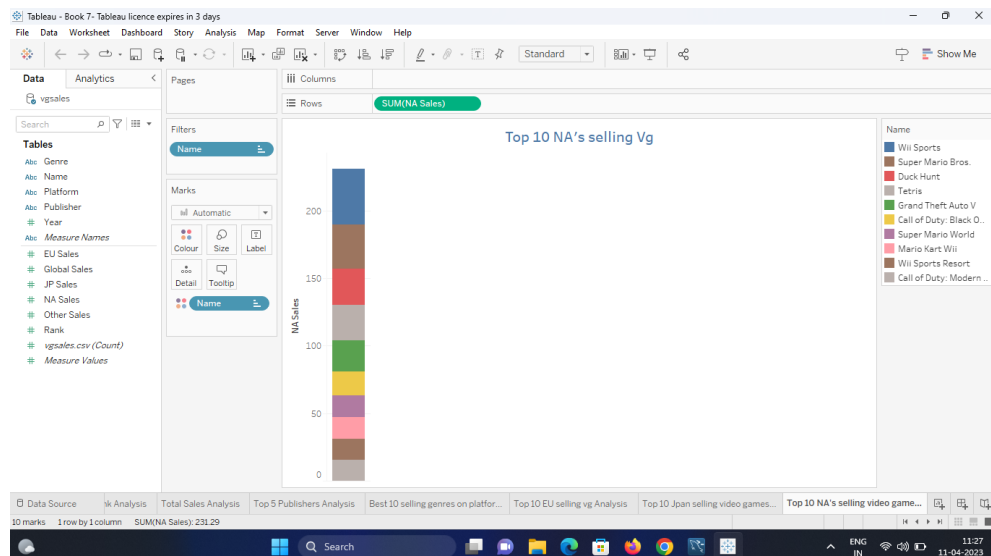
From the above statistical bar, we check the top 10 EU selling games **WII SPORTS** is in the top position .Grand theft auto **VICE CITY** is in second position.

## 7. TOP 10 JAPAN SELLING VIDEO GAMES:



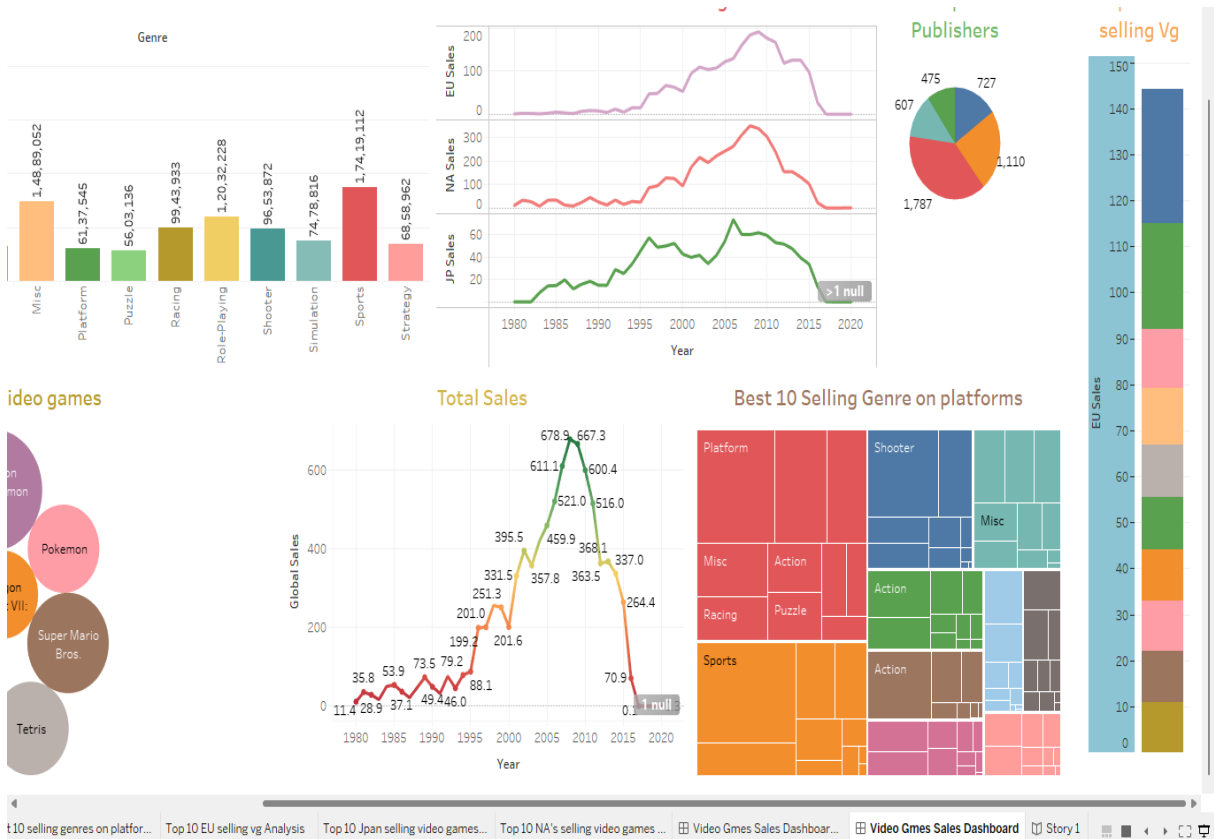
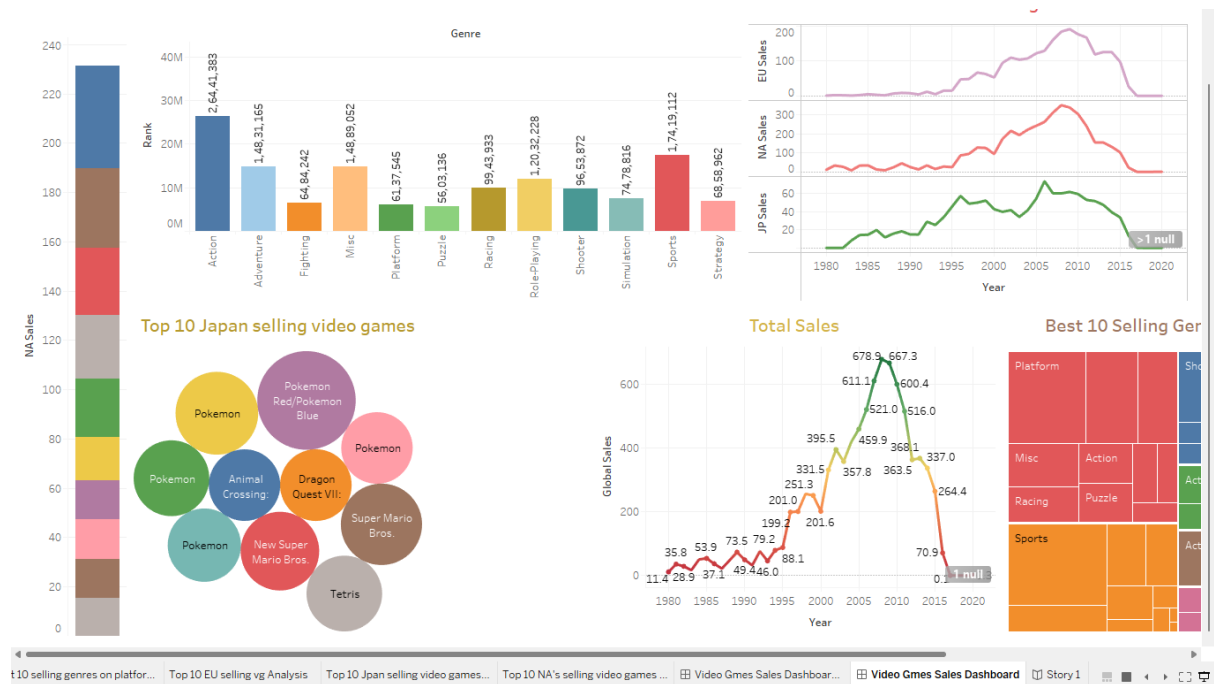
From the above chart, we check the top 10 japan selling games .**POKEMON RED / POKEMON BLUE** is the most playing games in **JAPAN**.**POKEMOM GOLD/SILVER** is the second most playing games in JAPAN.

## 8. TOP 10 NA'S SELLING VIDEO GAMES:



From the above statistical bar, we visualize the top 10 NA'S selling video games **WII SPORTS** is in the top position , **SUPER MARIO BROS** is in the second position.

# DASHBOARD



## **ADVANTAGES AND DISADVANTAGES**

### **ADVANTAGES**

- Video games have been around for decades, but their popularity has increased in recent years.
- The video game sector is larger than the movie and music industries combined.
- Tech giants Google, Meta, and Apple have all made plans to enter the gaming industry.
- Subscription streaming services are the future and will be beneficial to video game companies.
- Technical innovations, expanding market demographics, and an increase in video game-related merchandise have all contributed to the video game industry's new scope.

### **DISADVANTAGES**

- Security Issues
- Taxes
- Difficult to build with your customer
- Finding the right supplier

### **APPLICATIONS**

Video games came into the limelight with the birth of the original game console. In 1889, the creation of the Nintendo Company brought video games into a climax era, such as the well-known Mario, which has sold more than 373 million copies to date [1]. The video game entered the multimedia era with the competition of 16-bit consoles and the 3D era with the competition of 32-bit consoles. After entering the 21st century, Microsoft, Nintendo, and Sony became the three dominant players of video games. Video game entered China in the late 20<sup>th</sup> century and has experienced four eras so far: the preparatory era, the leap forward era, the stable era and the multi-platform era [2]. In recent years, with the rapid development of e-sports industry [3], major businesses have started to join the game industry, and video game has entered the golden period of commercial development. Public demand for video games has also increased dramatically, and due to the global outbreak of the New Coronary Pneumonia in 2020, video games have become a mechanism for coping with anxiety in an epidemic setting and one of the most attractive technological interventions to address the mental health effects of New Coronary Pneumonia [4]. Video games are favored by users and capital. However, in the face of the huge number of video game products, how merchants can use reasonable marketing strategies to increase product revenue and how users can choose products to get more benefits are important issues to be tackled. In addition, data analysis is needed to conduct commercial research on video games and obtain large-scale, diversified, personalized and real-time research results [5, 6], which is more conducive to the mining of various data information of users. This shows that it is a worth while direction to investigate the commercial application of video games based on data analysis. In this paper, the author crawls vgchartz.com to collect video game data samples. The statistical processing and exploratory

analysis are mainly conducted on the game product release platform, genre, and release year data. The K-Means algorithm is used to classify game products according to sales, and the corresponding business strategies are proposed for platforms, publishers, and users in conjunction with the market to stimulate marketing and market economy. *Advances in Economics, Business and Management Research*, volume 648 Proceedings of the 2022 7th International Conference on Financial Innovation and Economic Development (ICFIED 2022).

## **CONCLUSIONS**

It is best opt for the games releasing in PC and also if you are looking for action games look for the publisher "Ninendo" as they have sold the highest number of games. The love for the video games was increasing exponentially till 2008 but it is gradually decreasing since then, this is due to the lack of creativity, awareness or interest. This is the reason why most of the games are sold in North America as compared to the other part of the world. Well, there are lots of efforts going into creating a single game and due to modern era mobile games other platforms are getting deprived of the attention which had created a lot of awesome experiences for gamers from 1980-2010.

## **FUTURE SCOPE**

While AI generates game assets and, in some cases, entire levels, the livelihoods of human designers aren't in jeopardy — at least not yet. "For the foreseeable future, we will not have AI systems that can design a complete game from scratch with anything like the quality, or at least consistency of quality, that a team of human game developers can," Togelius wrote in his 2018 book *Playing Smart*. While AI may not create entire games yet, AI-generated art may change the graphics industry in the future. One designer even used AI art to create a horizontal-scrolling shooter game in just three days. Playing with AI art might be fun for creators, but academics and game designers alike are still trying to implement AI systems that will control the game in a way that is engaging for the player. Cardona-Rivera envisions a future in which AI acts as a game master that calls the shots for a human player. "Imagine what it would mean to have an AI 'director' who's looking at what you're doing and directing the unfolding experience for you," he said. "That's kind of like what my research is trying to do and what a lot of interesting work in the field — not just me — is trying to do." Until they figure that out, we'll continue to see human designers and computer algorithms working together to create the next generation of video games.

## **APPENDIX**

Source code: <file:///C:/Users/karav/Downloads/Arsha/Arsha/index.html>