THE COVID-19 EFFECTS ON THE VIDEO GAME INDUSTRY - A COMPARATIVE RATIO ANALYSIS ON ACTIVISION-BLIZZARD, ELECTRONIC ARTS AND KONAMI

Brendon Pojani*, MSc. Isida Mansaku**

* Procredit Bank, Tirana, Albania
** Canadian Institute of Technology, Tirana, Albania

ABSTRACT

The video game industry has evolved from having just a children-focused target market to a more sophisticated one with a widespread and mainstream audience with no age limitations. After the COVID-19 outbreak, it is mainly stated as one of the industries that faced little to no issues, so the main aim behind this research is to investigate how the giants of this industry confronted the financial challenges of pandemic.

We conducted a comparative profitability, liquidity, asset and debt utilization ratio analysis relying on the annual reports of 2021 and 2020 (2020 and 2019 for Activision-Blizzard), published by three of the biggest video game development companies. The time frame was chosen to reflect the position of the companies before and after the first year of the pandemic. The results vary due to the companies’ business models. Based on these results, we tried to identify any possible changes and variations, assessing the financial performance and position of the companies.

In the case of Activision-Blizzard, we mostly came up with increases in all of their major ratios, which derives from a successful business model they follow. In Electronic Arts’ case, we noticed an increase in revenue expenditure that led to a decrease in its profitability ratios. We also found out that the company has slight reduction in liquidity and asset utilization, but the results still indicate a good performance and do not reflect any serious predicament. While Konami, we saw a significant growth in their profitability and liquidity ratios, but on the other side there is a decrease in their total asset turnover and increase in the debt ratio.

In overall, we can state that the companies managed to cope with pandemic and financial challenges during the first year and even to expand their presence in the video game industry, but not without having to face some difficulties.

Keywords: Video Game Industry, COVID 19 Pandemic, Electronic Arts, Konami, Activision-Blizzard, Ratio Analysis, Financial Position and Performance.

1. INTRODUCTION

1.1 BACKGROUND

“An electronic game in which players control images on a video screen” is the simple definition given to video games by the Merriam-Webster dictionary. Nowadays, a video game can be considered an art piece by many enjoyers since it holds a plethora of emotions, visual beauty, and history behind it.

Early video game prototypes were created in labs in the 1960s, but the first breakthrough was done by Atari, an American manufacturer of computers and video game consoles. It was Atari’s introduction of Pong in 1972 that helped to spark the industry. After the market had dwindled owing to a glut of Pong clones, the arrival of Space Invaders in 1978 re-energized it. Unfortunately, the gaming industry grew too quickly for it to be sustainable. As other firms attempted to capitalize on the market, many more failed attempts at games and systems triggered an industry decline. Simultaneously, with the advent of the Commodore 64 in 1982, personal computers became the new taste of gaming.
It was a foreshadowing of what would come to define this age in gaming history: a technology race. In the following years, Nintendo would unveil the Nintendo Entertainment System (NES) in 1985, focusing on high-quality games and continuous marketing to reclaim the hesitant market. Even Microsoft recognized the importance of PC gaming and created the DirectX API to aid with game development.

However, it was the rise of the internet and smartphones that propelled the gaming business from tens of billions to hundreds of billions of dollars in revenue. Meanwhile, Amazon and Google are creating their services that function across numerous devices, including smartphones. Companies are targeting as much of the market as they can, after seeing the popularity of games like Pokémon Go on smartphones. According to Statista (2022) there were an estimated 3.24 billion players in 2021 across the globe, and how they spend their money continue to impact gaming industry.

1.2 HISTORY OF THE COMPANIES IN FOCUS

1.2.1 ACTIVISION-BLIZZARD

Activision-Blizzard Entertainment, two outstanding gaming businesses, united about 40 years ago, bringing together one of the best creative talents in gaming. Their journey to industry leadership started with humble beginnings. They acquired King in 2016 boosting their ambition of bonding the world via great entertainment. The company has become one of the world’s most popular and beloved video game businesses. Activision-Blizzard in 2018 revolutionized eSports, the competitive gaming industry with the inaugural season of the Overwatch League, the world’s first major global professional eSports league.

1.2.2 ELECTRONIC ARTS

According to Ivan (2020), Electronic Arts Inc. (EA) is the second-largest gaming firm in the America and Europe by sales and market capitalization, trailing only Activision Blizzard and ahead of Take-Two Interactive and Ubisoft. It is founded and established in May, 1982, and it was a pioneer of the early home computer gaming industry, referring to the designers and programmers as “software artists.” In 1991, the firm began to focus on internal game studios, frequently through acquisitions, such as Distinctive Software becoming EA Canada. EA currently develops and publishes games from well-known franchises such as Battlefield, Mass Effect, Dragon Age, The Sims, Medal of Honour etc.

1.2.3 KONAMI

The company was found by Kagemasa Kozuki, on March 21, 1969, and was legally incorporated in March, 1973, under the name Konami Industry Co., Ltd, in Osaka. Their first coin-operated video game was released in 1978, and the following year, they began exporting items to the United States. In 1982, they founded Konami of America, Inc., and their U.S. subsidiary.

Konami has made a legacy in the video game industry for creating the first cheat code ever in video games. The Konami Code, often known as the Contra Code, is a cheat code found in numerous Konami video games as well as several non-Konami games. This was a staple in the video game industry since it made it a necessity to add cheat codes in a video game and make the game more enjoyable, simpler, or even funky for the players.

1.3 RESEARCH QUESTION

This study is going to give responses to these questions: “Has the video games industry suffered or benefited from the pandemic? What are the effects that the pandemic caused to the financial position and performance of most important companies operating in this industry?”

1.4 RELEVANCE AND OBJECTIVES

The main aim of this research study is to compare, interpret and mark how Activision-Blizzard, Electronic Arts and Konami are acting over time, before and after pandemic, in order to reveal insights with regard to their financial position and performance. Some of the reasons behind this study are to examine the press’ speculations that this industry is one of the greatest beneficiaries of pandemic, to analyse if the companies within this industry have leveled
up during the pandemic and to see if their business models affected the changes that have concurred.

2. LITERATURE REVIEW

As stated by Ortiz, Hector, Chimbo, and Toaza (2021) the pandemic has turned everyone into finding indoor hobbies to spend the time, one of them being gaming since it is the most accessible, (since everyone can play videogames from their smartphones or laptops, even their TVs), and an entertaining alternative. The growing demand for video games during quarantine has revealed economic changes to the benefit of this industry, with an increase in sales within the countries with the highest video game consumers. The global PC gaming market, as researched by Clement (2021), generated almost 37 billion US dollars in revenue through 2020, while the mobile gaming market was also expected to generate more than 77 billion US dollars. According to a Bloomberg report (2022), “the video-game industry could be one of the greatest beneficiaries of the pandemic, growing 23% in 2020 from the year prior. Though growth probably won’t be as explosive in future years, research firm Newzoo still predicts that revenue will reach $219 billion by 2024”. This growth prediction even though it takes into charge different factors, the video game industry is in a very fragile state where it has high spikes of revenues, but still suffers from different issues that have caused losses (Dobrilova, 2021). The industry has faced many issues developing new games. Garnett (2020) noted that many conventions like E3, Gamescom, Tokyo Game Show, etc. have been cancelled due to the pandemic and drove to major losses in the industry.

2.1 THE BUSINESS MODELS IN THE VIDEO GAME INDUSTRY

The videogame industry throughout its lifetime has had a huge shift into different business models when it comes to companies generating their revenues through the games. The basic model is used to include just a simple “Develop-Produce-Distribute-Sales” earning method whilst now with the different channels of distribution it has largely evolved. Lapas (2020) divided them into these main business models:

- **Advertising Model**
  Advertising model is widely used and employed by most games. To earn money, games in this format show Display commercials, interstitial and incentivized ads, among others.

- **Upfront Payment Model**
  This model is a business model in which games charge a one-time price to download the game. This model is used by several well-known major games.

- **Subscription Model**
  In subscription model, the games charge a small price regularly. The majority that use massively multiplayer online games follow this approach. The reason for collecting recurring fees is that games have substantial maintenance costs, not covered by advertising or upfront payments.

**Free 2 Play- Next**
Games are free to download, but many upgrades demand fees, and some players are put at a higher advantage regarding other players when they purchase upgrades.

- **Freemium Business Model**
  Another common business model utilized by games is the freemium model. Games are free to download and play in this format, but there are a variety of purchases known as micro-transactions.

- **Hybrid Model**
  Another business model employed by games is a hybrid model, in which three different business models are combined. For example, they used advertising model that display ads, but also apply a hybrid one if players desire an ad-free experience.

3. METHODOLOGY

The main purpose of this research study is to find out the effect that the COVID 19 pandemic had on the video games industry, in particular on financial position and performance of Activision-Blizzard, Electronic Arts and Konami. In order to analyze how these companies were financially handling the pandemic, a handful of
ratios are selected from three different ratio categories. In addition, the business models pursued are examined to find out any differences in the results. Since these companies are some of the largest in the videogame industry and exert most of the business models mentioned before, the study is concentrated to them as the results are more significant.

3.1 RESEARCH DESIGN

For research purposes, we mainly used secondary data. We refer to the annual statistics published by the companies respectively, whereas the data from the financial statements, were collected from the companies’ annual reports. The financial statements used, were the consolidated balance sheet of each company and the consolidated statement of operations (income statement). A major aspect that makes this research more effective, is that Electronic Arts and Konami end their fiscal years on the 31st of March, which perfectly aligns with the period that most of the world started enforcing quarantine laws.

3.1.1 TARGET POPULATION

The target population for this research is video game development companies. The reason behind concentrating on developers rather than other forms of entertainment, such as eSports organizers, was that developers are the front line of handling and reflecting the state of videogame industry.

3.1.2 SAMPLING DESIGN

The sampling method used in this research paper was Purposive Sampling. The chosen firms are three of the largest in the game industry, exert different business methods, and operate on the global market but in different countries. The chosen firms are Activision-Blizzard, Electronic Arts, and Konami. Activision-Blizzard and Electronic Arts are the biggest gaming companies, whilst Konami is the biggest Japanese developer and merchandise producer regarding videogames.

3.1.3 FINANCIAL RATIO CATEGORIES

The financial ratios used in this research fall under three categories: Profitability Ratios, Liquidity Ratios, and Asset & Debt Utilization Ratios.

- **Profitability Ratios** are a type of financial indicators that assess a company’s ability to create earnings compared to its sales, operational costs, assets, or shareholders’ equity over time. These ratios assisted in determining the companies’ potential to create revenues while also managing costs and expenses during the pandemic. The chosen Profitability Ratios are Gross Profit Margin, Net Profit Margin (Operating Margin in the case of EA) Return on Assets, and Return on Equity (Activision-Blizzard and Konami only).

- **Liquidity ratios** are another type of financial indicators that assess companies’ capacity to satisfy debt commitments and margin of safety. The Liquidity Ratios used in the analysis are: Current Ratio and Cash-Asset Ratio.

- **Asset and debt utilization ratios** are those ratios that assess companies’ capacity to manage its assets and debt successfully. A rise in asset utilization suggests that the organization is making better use of its assets. The asset and debt utilization ratios used in the analysis are Total Asset Turnover and Debt Ratio.

4. DATA ANALYSIS

In the following, we have conducted a comparative ratio analysis using financial statements to see how the results have evolved in the latter stages as gone through the pandemic. The data represented are for illustration purposes only and should not be considered by individuals or businesses when they select the products/services of those companies.

- **Gross Profit Margin**

  Figure 1: Gross Profit Margin (Activision-Blizzard)

  **Comment:** The results show a slight increase from 2019 to 2020. Referring to Consolidated Statement of Operations, we notice an increase on COGS, but even higher increase on revenues. A GPM by 91%
could be considered high for any other industry, but here the product costs are minimal and most of the expenses go towards operating expenses.

**Figure 2: Gross Profit Margin (Electronic Arts)**

*Comment:* Figure 2 conveys the 2% decrease of GPM for EA from 2020 to 2021. This resulted as the company had an increase in their production costs by 125$ million. This increase was caused by a surge in royalty costs driven by higher sales of the FIFA and Madden franchises and a rise in the platform and hosting fees for their servers of Star Wars.

**Figure 3: Gross Profit Margin (Konami)**

*Comment:* In the Figure 3, we see a 4% increase in Konami's GPM ratio. This indicates that company generated more earnings over and above its costs. The main increase in revenues was caused by rendering services, that means that the mainstream was from Subscription Based games and less from trading card games.

- **Net Profit Margin**

**Figure 4: Net Profit Margin (Activision-Blizzard)**

*Comment:* The NPM, a very important indicator, has considerably increased at 4% during the pandemic; the ability to turn net sales into net profit has improved. The higher net income is derived from its business model. This corporate, duo of giants, uses a mix of business models in their games. Mainly the Freemium and Subscription models are applied, which require higher operating costs for the maintenance of servers and game updates but generate much higher revenues than the regular upfront payment model.

**Figure 5: Operating Margin1 (Electronic Arts)**

*Comment:* As conveyed, we see an 8% decrease in the Operating Margin of EA. Hence, the more we dive into Operating Expenses we notice they are higher compared to last year. EA has allocated more funds into R&D, Marketing & Sales, and General & Administrative costs. These costs were mostly increased by pandemic-related causes such as improvement of working conditions in the R&D or increase in marketing costs to make up for the lack of physical retail sales, since most physical video game stores were closed.

**Figure 6: Net Profit Margin (Konami)**

*Comment:* In a noticeable pattern we see a 4% increase in the NMP of Konami, which reflects a better performance of the company to produce profits from their revenues. If compared side by side with the other companies, we see that Konami has lower profitability margins, but this comes from its different revenue streams including Trading Card Games which require physical production. This also led to increasing operating expenses.

- **Return on Assets**

**Figure 7: Return on Assets (Activision-Blizzard)**

*Comment:* As displayed in the Figure 7, we see around 1.9% increase in the company’s ROA caused by an increase in their Net Income, but also their Total Assets (mainly short-term assets). This indicates that Activision-Blizzard has used their assets more effectively to generate profit, comparing to the previous fiscal year.

**Figure 8: Return on Assets (Electronic Arts)**

*Comment:* As it is obvious from the figure displayed, we see a huge decrease in EA’s ROA. However, this is not necessarily a bad sign or impacted by the pandemic. The huge decrease comes from aforementioned Net Income increase in 2020, caused by income tax provisions. As it is also...
explained in the annual reports, negative income tax results from the sale of intellectual property to EA Swiss subsidiary. However, a 6% ROA is still considered a good figure in the video games industry, since it is very heavy on assets where goodwill is one of the worthiest assets.

Figure 9: Return on Assets (Konami)

Comment: The slight increase by 2% from the 2020 to the 2021 fiscal year indicates a better use of Konami’s assets to generate revenues. This has concurred from an increase in net income and a decrease in long term assets.

• Return on Equity

Figure 10: Return on Equity (Activision-Blizzard)

Comment: The increase of ROE by 2.8% shows that the company’s management was able to generate more profits with the net assets available. By looking at the Cons. Balance Sheet, we notice an increase in equity, caused mainly by the increase in the retained earnings and no offsets caused by dividends since they were the same for both years.

Figure 11: Return on Equity (Konami)

Comment: ROE also indicates a better performance of Konami during 2020-2021 fiscal year showing an increase by 4%. Hence, we notice an equity growth due to the increase in the retained earnings and with barely any difference in dividends distributed.

To conclude, we can state that, the financial metrics (profitability ratios) used to assess the three giants’ ability to generate earnings relative to their revenues, operating costs, assets, or shareholders’ equity over time, shown that they have performed better during pandemic than before.

• Current Ratio

Figure 12: Current Ratio (Activision-Blizzard)

Comment: A Current Ratio at two (2) is usually considered a good indicator, while in our case Activision-Blizzard has increased their ability to pay their short-term debts up to 3.4 by liquefying its short-term assets. The increase in this ratio has happened mostly from a notable rise in the companies’ cash and cash equivalent whilst no significant increase in its short-term debts comparing to last year.

Figure 13: Current Ratio (Electronic Arts)

Comment: The current ratio shows us how many times a company can pay off its short-term debts using only its current assets. In our case Electronic Arts is able to pay off its short-term debts more than twice (2.43 times) using only its short-term assets. This means that despite the slight decrease, its liquidity is being handled in a good manner and well over the industry standard.

Figure 14: Current Ratio (Konami)

Comment: The increase shown in the Figure 14 indicates the capacity of the company to have enough resources to meet its short-term obligations or those due within one year. The growth in this metric measured, is caused by an expansion in the short-term assets and a further decrease in the short-term liabilities.

• Cash-Asset Ratio

Figure 15: Cash-Asset Ratio (Activision-Blizzard)

Comment: The cash-asset ratio is a more stringent measure and gives us an in-depth look at a company’s short-term liquidity by removing just those current assets such inventories or receivables that are not immediately convertible into cash. While considering only the most liquid assets, cash and cash equivalents, and marketable
securities, we see that Activision-Blizzard has a higher capability during 2020 to pay off and settle its short-term debts. In particular, the companies’ cash and cash equivalents had a significant increase from 2019 to 2020 fiscal year and an insignificant increase in short-term debts.

**Figure 16: Cash-Asset Ratio (Electronic Arts)**

*Comment:* As it is obvious, there is no difference from the 2020 to the 2021 fiscal year. However, we notice a 40% increase in cash and cash equivalents and a decrease in short-term investments by 44%, whereas the change of current liabilities is barely noticeable. Comparing also to the CR, it is still above 2, which shows us yet again EA's high liquidity and ability to pay off its short-term obligations.

**Figure 17: Cash-Asset Ratio (Konami)**

*Comment:* As overviewed by previous ratios as well, we have concluded that the corporate has an expansion in their short-term assets. The Cash Asset Ratio shows us that even if they use only their cash and cash equivalents, their ability to settle the short-term debts has increased, by 1.17 times more.

- **Total Asset Turnover**

**Figure 18: Total Asset Turnover (Activision-Blizzard)**

*Comment:* As stated in the Figure 18, we see a 2% increase in TAT ratio, conveying that net sales are increase more than the total assets growth. This is an indicator that shows how efficiently the company has used their assets to generate revenues.

**Figure 19: Total Asset Turnover (Electronic Arts)**

*Comment:* As displayed we see a 9% decrease in EA's total asset turnover which shows us that the efficacy of them using their assets to generate revenues has fallen. Generally, the higher the ratio, the better the company is utilizing their assets, in this case, we notice a deficiency.

**Figure 20: Total Asset Turnover (Konami)**

*Comment:* We also see a 7% decrease in this ratio during pandemic, caused by an increase in total assets and considering Konami’s products, this depicts a decrease in the efficiency of the assets use.

- **Debt Ratio**

**Figure 21: Debt Ratio (Activision-Blizzard)**

*Comment:* This ratio shows us how much of the company’s assets are financed by debt. We see a slight 0.6% decrease from 2019 to 2020. A high Debt Ratio is worrisome, which is here not the case, comparing also with industry levels.

**Figure 22: Debt Ratio (Electronic Arts)**

*Comment:* The ratio shows that during the pandemic, 41% of EA's assets are financed by debt whilst before it was only 33%. This has occurred due to the increase of almost 50% of liabilities, despite the 20% increase in the total assets. The growth in the level of company’s leverage by 8% might be a bit worrisome from potential and existing investors point of view, but keeping in mind the previous results from the “Current Ratio” analysis, we state that the company is doing a good job managing current obligations.

**Figure 23: Debt Ratio (Konami)**

*Comment:* This ratio is used to measure the extent of Konami’s leverage. Generally, an increase in the Debt Ratio is not a good sign, but referring also to the previously analysed data, this may not be considered an issue.
5. CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUDING REMARKS

This research study aimed to identify the effect that the COVID-19 pandemic had on the video games industry throughout the first year. Based on a quantitative analysis including three categories of ratios, Profitability, Liquidity, and Asset and Debt Utilization ratios, we can conclude that the video game industry has seen a noticeable growth during the Covid-19 outbreak. Like many other industries, initially it faced troubles while adjusting to the new working conditions and other circumstances, but the facts gathered and analysed shown a quick adaptation, which is also reflected in the main findings with regard to the growth in the companies’ revenues.

Based on the different business models that these companies follow through, they had different ratio thresholds even though they are in the same industry. In Activision-Blizzard and Electronic Arts’s cases, we saw a high Gross Profit Margin, 91%, and 73% respectively, while in Konami’s case we have a lower rate by 42%. This mainly comes from Konami’s production costs being higher, since they are the only one out of the three companies that allocate many of their capital in the manufacturing of the products. While examine the profitability ratios, we see a decrease in Electronic Arts overall results, which depicts an increase in their overall costs caused by barriers created during the pandemic and higher marketing costs to compensate for the lack of physical stores to sell their games. On the other hand, the other two companies have faced small increases in their profitability ratios caused by increase in net sales and lower costs mostly. Activision-Blizzard has and upward trend regarding profitability since it resulted with the highest increases out of the three companies on focus, caused by its consistent business model of subscription-based digital payments and lack of physical production.

On regard to liquidity ratios, it is observed a stability as well from all three companies, with slight decreases seen on Electronic Arts. The findings show that companies are highly liquid, compared also to industry standards. All three of the companies are capable to pay off their short-term debts twice or more times using their short-term assets, even using their most liquid assets such as cash and cash equivalents and marketable securities.

Asset Utilization Ratios on the other hand indicate the companies are not being as effective while using their assets during the pandemic. In particular, we see a 9% decrease in asset turnover ratio of Electronic Arts, that shows that the company was less efficient using their assets to turn profits. Also, we noticed an increase in Electronic Arts and Konami's debt ratios, which shows us they were funding a larger portion of their assets through debt. Activision-Blizzard on the other hand saw a decrease in their Debt Ratio and an increase in Total Asset Turnover. However, the Debt Ratio increases in the two aforementioned companies are not much to worry about since they are easily hedging from their debts through their high liquidity. The decrease in their total asset turnovers is not a good sign though, they need to recover from these reductions and do a better job to utilize their assets since it might highly affect their revenues.

5.2 RECOMMENDATIONS

Based on the main findings and the conclusions, we would highly recommend for Electronic Arts and Konami to start utilizing their assets more effectively stretching their revenue streams gain. Considering that we are still under a pandemic and maybe some of their assets were unusable, they still managed to do a good job, but they need to avoid turning these reductions into a yearly trend.

Another thought that occurred was the unexpected high liquidity ratio results for all three companies, they had a high count of cash and cash equivalents, which is not always a good sign. Even though they can pay off their debts with facing no issue, they could or might also invest that money in the well-being of the company in other projects or improve a certain work factor that might lead to higher employee satisfaction and inevitably to better job
conditions and more revenues. This also might better improve other aspects of the companies and maybe lead to more revenue streams or new franchises.

The data analysis of this study has been conducted through comparative ratio analysis of the three companies but there are other perspectives that may be considered for a more in-depth analysis of the industry. There are events or other news which have not been taken into consideration that might have happened during this time frame. They might include important aspects that explain furthermore why these changes in ratios or generally in financial reports have occurred. A further empirical research will be conducted adding more factors, in addition to a final study after the pandemic ends to have a full quote on it.

The last recommendation is that the gaming industry needs to broaden more in Albania. While there is a considerable high demand for video games, there is a lacklustre delivery from Albanian companies. The only existent provider of videogames is a merchandising company that sells video games mainly from the aforementioned companies, but barely any development studios exist. The growth of the video games markets worldwide, especially after having mostly a positive effect on the users during pandemic, may have a long-lasting macro-economic impact for our country as well.

To conclude, the popularity of the video game usage during the first year of pandemic was very crucial, which in overall, has been also translated into a better financial situation of the companies within this industry.

REFERENCES
17. Who we are: Activision-Blizzard. (2021). Retrieved from Activision-Blizzard: https://www.activisionblizzard.com/who-we-are
