

Original Article

Studying the Factors Leading to Revenue and Profitability Growth in the Toy, and Gaming and Esports Sectors

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Abstract - The paper will look into two important global industries: the toy industry and the gaming and esport industry. The paper will study the reasons for revenue growth and profitability growth in both industries, analyzing a total of 16 firms over a period of 10 years, from 2014 to 2024, by studying, studying various factors such as consumer demand, climate change, land and labour costs, costs of designing and production, new age marketing techniques, impact of child-protection laws and agencies, cost of raw materials, digitization and artificial intelligence. The research found global issues impacting firms globally, as well as internally, leading to slow revenue growth and decreased profitability growth in toy firms while exponentially increasing growth and slowly increasing profits in gaming firms. As a whole, the paper will study the future of both the industries and the global lasting impact they have on the economy and commerce. This paper serves as a compendium on both of these industries.

Keywords - Toy, Gaming, Profitability, Growth, Revenue.

1. Introduction

The traditional definition of the word ‘toy’ given by the University of Oxford is “an object for a child to play with, typically a model or miniature replica of something.” [1] Toys have played an essential role with mankind and commerce over the last 23,000 years since the Indus Valley Civilization.

[2] However, in today’s day and age, toys have expanded from an object to a global industry worth around 305 Billion USD as of 2022. It has expanded to digital toys, multi-sensory experiences, educational toys, puzzles, outdoor toys, STEM toys and so on. This rate of increase of growth in the toy industry has been decreasing over the years due to the rise of online gaming, social media, film and digitization. On the other hand, online games are new compared to traditional toys, established around the 1970s.

The form of the market it operates in is not researched, yet it is dominated by a few firms. Retail has always been the main growth driver of the toy industry. However, the collapse of the retail industry across the US and Europe (particularly Toys R Us, Intertoys, and Bart Smit in reference to the toy industry) has severely affected the toy industry, allowing them to try different methods to appeal to the masses, especially their new target audience, parents, more efficiently to increase CAGR for their firms again. Conversely, online gaming is dependent on software development, designing, bug removals,

and so on, which has lesser internal costs but a larger marketing budget. The toy industry has historically been focused on America and Europe for their growth; however, over the last decade, China, India and Indonesia have been the new leaders in growth. Conversely, the online gaming industry is spread out globally.

Most toy companies are private or subsidiaries. The majority of listed toy companies, including Mattel Inc. and Hasbro Inc., are listed on NASDAQ. Prominent toy sellers like Lego, MGA, Playmobil, and Funschool are either acquired, or are private. This is one of the prominent reasons for the lack of literature. Contrarily, esports and gaming companies are public and listed, including some like Tencent, Electronic Arts, and Roblox, while some are private, like Activision-Blizzard and Epic Games.

Most companies of both industries list to promote a new line or boost M&A activity (For example - Mattel’s IPO to promote its M&As and Barbie line in the 1960s) [3]. The toy manufacturing sector is mainly impacted by retail revenues, trends in the modern day, cost of inputs and transportation, collaboration and so on. Retail is a major factor for the toy industry. The introduction of selling toys on e-commerce like Amazon.com and department stores like Walmart and Target led to the revival of the growth of the industry. For



manufacturing as a whole, not just the toy manufacturing industry, the costs of inputs and transportation, including increases in the price of labour in China, oil prices, and suffocation of global trade routes, have led to a rise in transportation costs, along with the rise in domestic transportation costs has significantly decreased profits and increased input and variable costs.

The bankruptcy of Toys R Us, the Gulf War, COVID-19 and the Great Recession all led to major problems in the global toy industry. Conversely, the gaming industry is increasingly becoming more profitable.

As the global cost of operating and producing technology and software is decreasing, gaming and esports companies are making increasing profits. Similarly, increasing conflicts, free time and gaming addictions are leading to more growth in this industry. Demand for digital currencies on games (for example Robux for Roblox) has increased greatly post the COVID-19 pandemic, also bolstering growth.

Also, social media and box office presence have engendered growth (Barbie Movie, Lego Movie, GI Jones, Troll Doll, My Little Pony, Pixels, Jumanji). Despite it being a centi-billion dollar industry, not much cumulative research has been done on the toy and gaming industry, especially on the manufacturing and growth side, and a knowledge gap has been found.

Hence, this study aims to bridge this gap. The paper will use research techniques, along with qualitative assessment, to identify key growth factors in the industry.

2. Methodology

2.1. Research Aim

To understand the factors leading to revenue and profitability-including digitalization, production, cost of inputs, and marketing top toy and gaming companies listed on any United States of America Stock Exchanges (New York Stock Exchange, NASDAQ, NYSE Arca) and also understanding the future of both sectors.

2.2. Data Collection

This study employed a Systematic Literature Review (SLR) as a research approach to collect, synthesize, and appraise the findings of all available evidence on the topic to provide a comprehensive overview of the current state of knowledge on this topic.

This process involved using a systematic and transparent approach to identify, evaluate, and synthesize all relevant studies to minimize bias and ensure the reliability and validity of the review.

An online search was conducted on various databases such as Google Scholar, ResearchGate, and JSTOR to discern

the most relevant literature published in English ever on this topic. This led to the discovery that there is a lack of relevant journal papers, articles, and published reports linked to the toy industry. On the other hand, there was a mediocre availability of papers available about the gaming industry.

2.3. Data Analysis

Originally, the paper was choosing all firms listed on NYSE and Nasdaq, however, after research and tapping of datasets, it was found out that there is minimal data available on relatively smaller firms.

Hence, the selected companies are those that have been listed for more than 5 years (before 2024) for both types. For gaming companies, companies with a revenue of more than 3 billion dollars are selected. This is done because there is a lack of available data on both industries and for newer, smaller firms, the data is extremely less and hence limited.

Hence, larger firms that have been in the market for a long time have been selected. Data was henceforth analyzed from annual reports of firms under study, and revenues and profits were graphed with the help of Google Sheets. The graphed data was then analyzed to create conclusive results, observations and discussion.

The articles, reports and papers have been taken between the years 2013 to 2024 (if data is available) or 2023 (where most firms' data is available), and based on that data, results and discussions have been compiled. The paper has not taken data prior to 2013, though some critical aspects have been analyzed for a historical analysis of the firms.

2.4. Ethics

This project was done with secondary data. Everything was appropriately referenced, and there was no AI-generated content.

3. Results and Discussion

3.1. Results

The following section illustrates the revenues and net income graphs for the top 7 publicly listed toy firms and 14 gaming firms. Observations have been noted from this and qualitative and quantitative analysis in the discussion has been done on the basis of it.

3.2. Toy Firms

3.2.1. FUNKO

Revenue of FUNKO increased till 2022, then a dip in revenue was observed. The dip in profits, however, started from 2021 and led to a rapid decline in 2022.

The massive increase in revenue is due to a large focus on diversity and online retail. There was a fall in profits in 2018 and 2021-22 due to increased marketing costs due to Toys-R-Us and COVID-19, respectively.

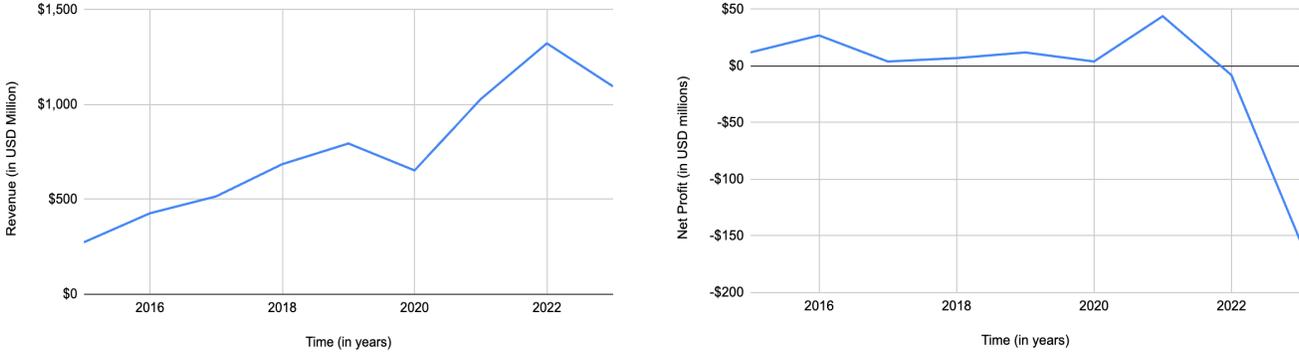


Fig. 1 (a)Revenue (2015-2024), FUNKO (b)Net Profit (2015-2024), Funko

3.2.2. Hasbro

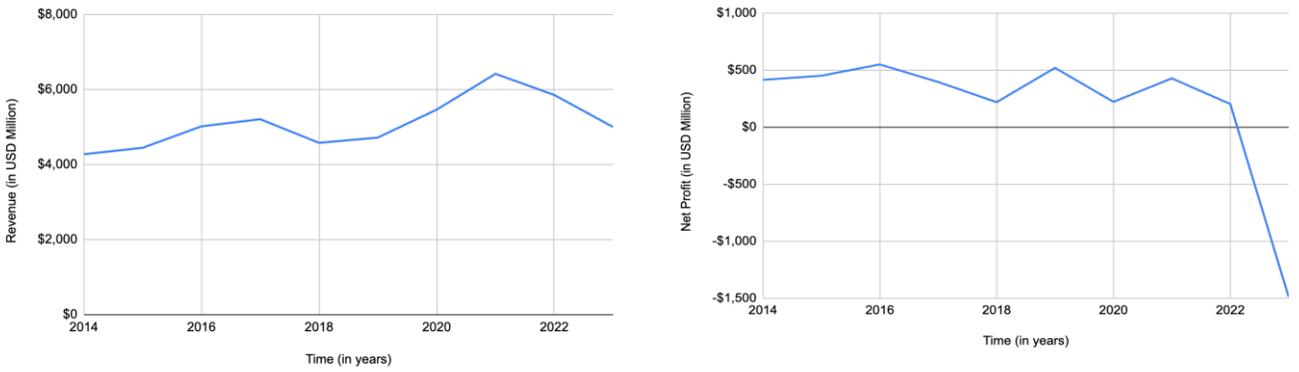


Fig. 2 (a)Revenue (2014-2024), Hasbro (b)Net Profit (2014-2024), Hasbro

Revenue of Hasbro increased till 2017, then a dip in revenue was observed, but increased till 2021 and again fell till 2023. The net profit decreased slowly over time till a massive fall in 2022 onwards, where a net loss was reflected.

The fall in revenue and profit in 2017-18 is associated with the bankruptcy of major retailer Toys-R-Us. The fall in 2023 was associated with weaker toy demand and the WTA protests, which weakened sales due to films and other associated media.

3.2.3. Mattel

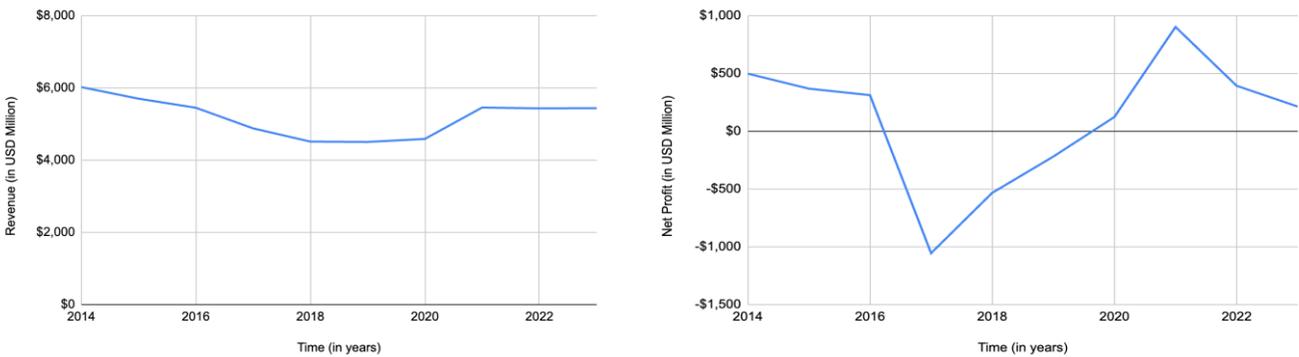


Fig. 3 (a)Revenue (2014-2024), Mattel (b)Net Profit (2014-2024), Mattel

The revenue of Mattel has slowly decreased over the years, even though there was a slight increase in 2021. The profit saw a massive dip in 2016, which continued to be a loss till mid-2019, then it increased till 2021 and dipped

massively till 2023. The fall in revenue in 2017-19 and profitability was due to the bankruptcy of Toys-R-Us. The fall in profitability from 2021 to 2023 was due to weaker Barbie demand (which was reversed later) and higher margins.

3.2.4. JAKKS Pacific

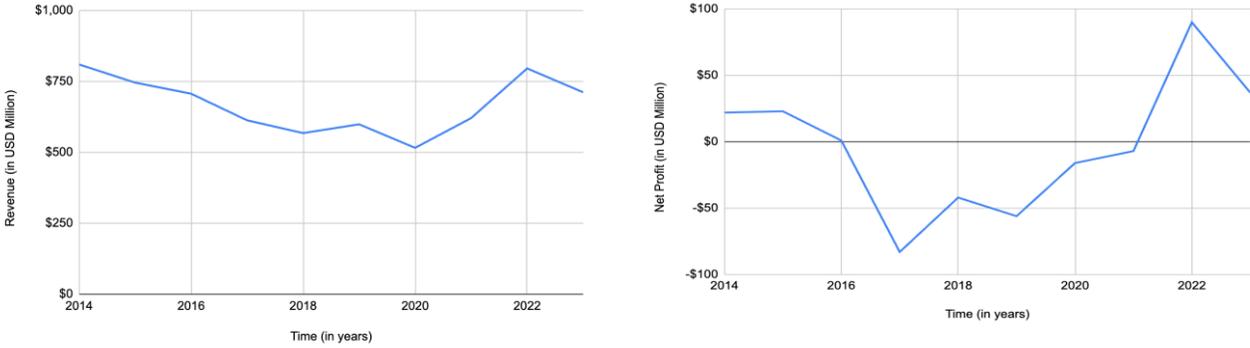


Fig. 4 (a)Revenue (2014-2024), JAKKS Pacific (b)Net Profit (2014-2024), JAKKS Pacific

Revenue of JAKKS Pacific decreased till 2020, and then it increased till 2022 and then again decreased. The profit saw a massive dip in 2017, which continued to be a

loss till mid-2021, and then fell to 2023. The fall in revenue is due to tighter deadlines and overstocking.

3.2.5. Build A Bear

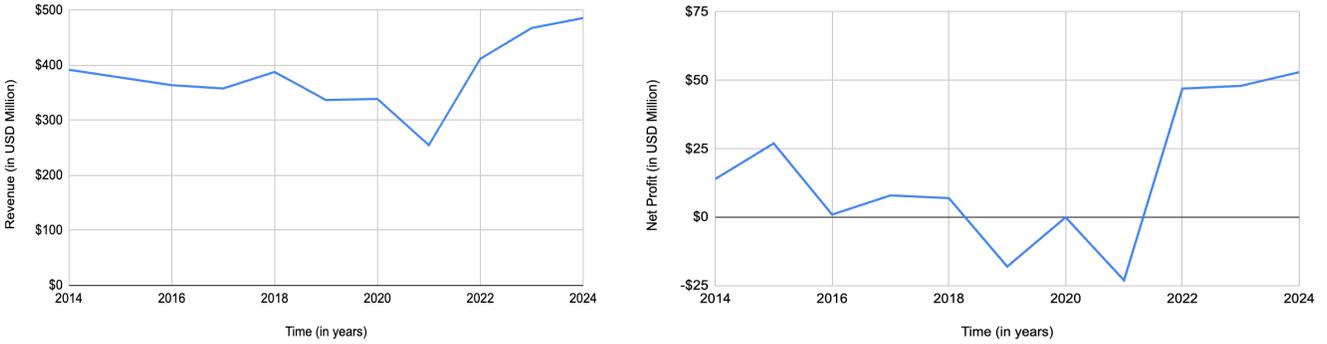


Fig. 5 (a)Revenue (2014-2024), Build-A-Bear (b)Net Profit (2014-2024), Build-A-Bear

Revenue of Build-A-Bear decreased till 2021, and then it increased till 2024. The profit fell till 2021 and then sharply increased till 2024. The fall in revenues and profits till 2021 was due to weakened demand for malls (where it

generated major revenues). The boost in 2021 onwards was due to increased investment in its online platforms and the Bear Builder.

3.2.6. Spin Master

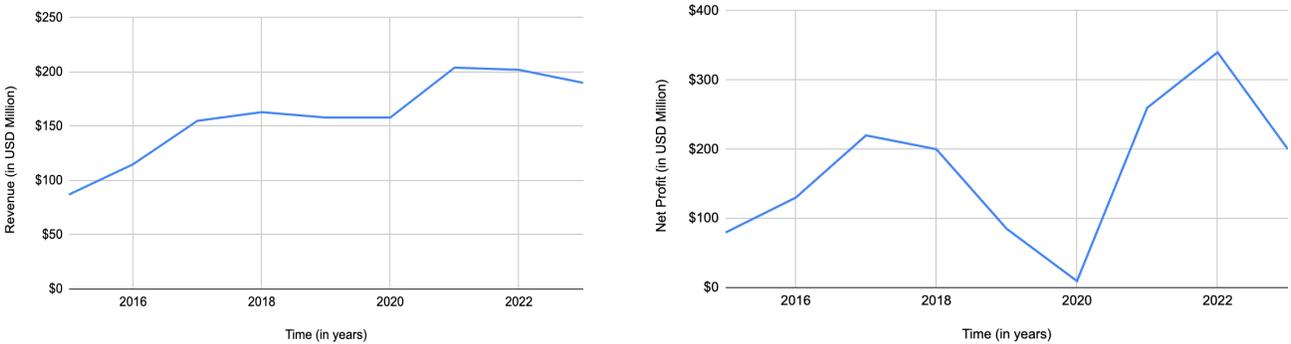


Fig. 6 (a)Revenue (2015-2024), Spin Master (b)Net Profit (2015-2024), Spin Master

Revenue of Spin Master has increased all over till 2024. The profit increased till 2017 and then fell straight till 2020, and then again shot up to 2022.

The decrease in profits was due to increased investment in digital gaming and entertainment, diversifying the firm's interests.

3.2.7. Bandai Namco

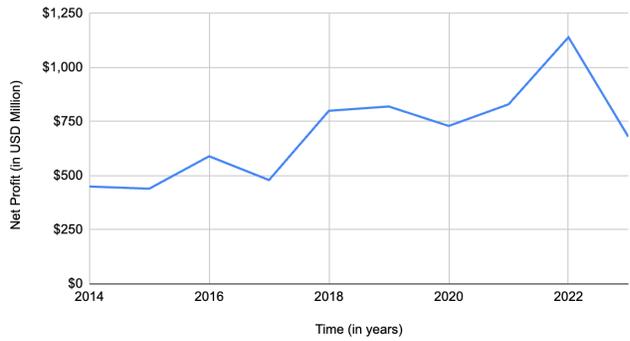
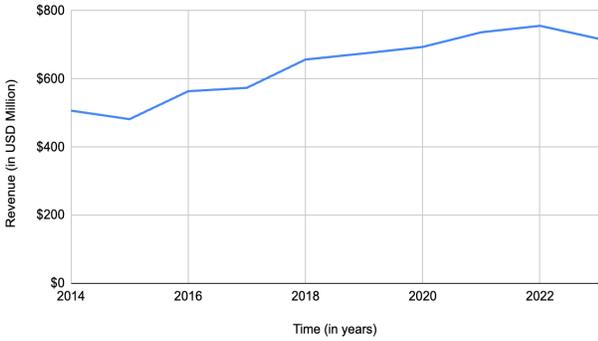


Fig. 7 (a)Revenue (2014-2024), Bandai Namco (b)Net Profit (2014-2024), Bandai Namco

Revenue of Spin Master has increased all over till 2024. The profit increased till 2022 and then fell straight in 2023. The revenue growth has been promoted by stronger

consumer demand in Asia. The profits saw a significant drop in 2023 due to a lack of new content from all their major streams over the year.

3.3. Gaming Firms

3.3.1. Tencent Holdings

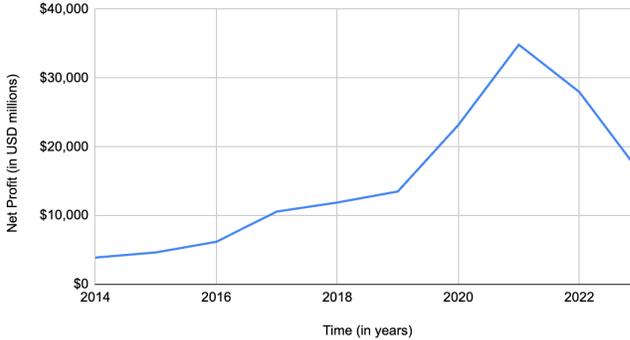
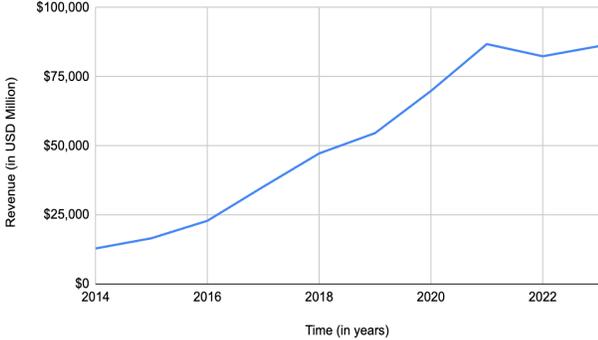


Fig. 8 (a)Revenue (2014-2024), Tencent Holdings (b)Net Profit (2014-2024), Tencent Holdings

The revenue of Tencent Holdings has increased all over till 2024. The profit increased till 2021 and then fell straight till 2023. The revenue has increased due to stronger demand for gaming globally. The fall in revenue in 2022 was due to

a massive fall in the number of players after post relaxation of the COVID-19 pandemic. The profit drop was again due to excess marketing and stricter regulations for Chinese developers in China itself.

3.3.2. Nintendo

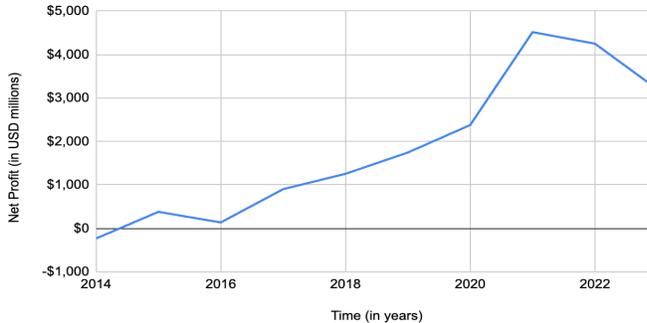
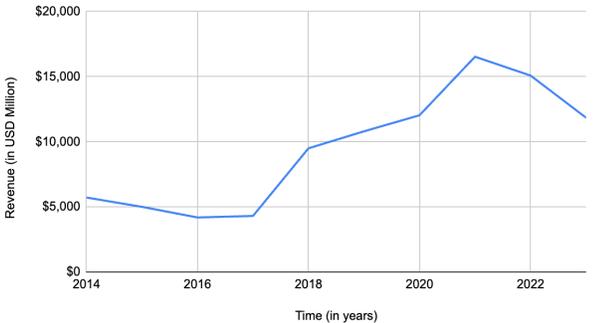


Fig. 9 (a)Revenue (2014-2024), Nintendo (b)Net Profit (2014-2024), Nintendo

The revenue of Nintendo has increased all over till 2021 and then fell till 2024. The profit increased till 2021 and then fell straight in 2023.

The fall in revenue was due to no major updates or releases in the flagship Mario franchise, which also decreased profits.

3.3.3. Netease

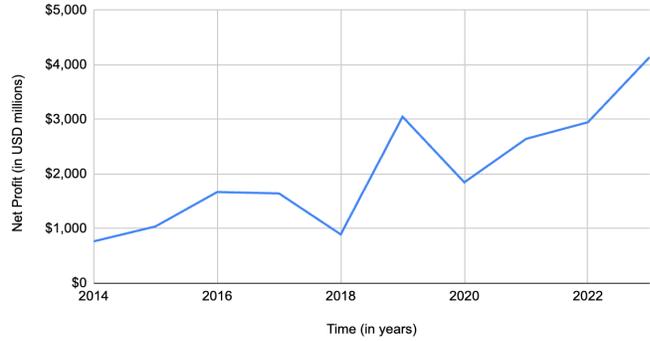
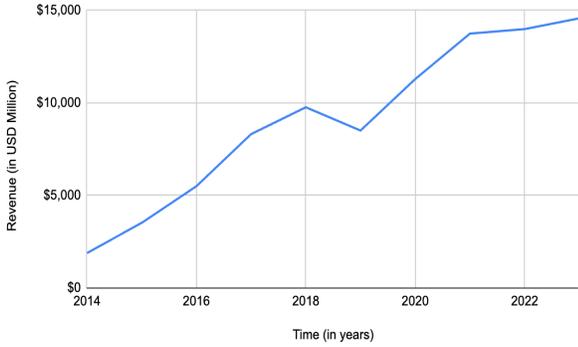


Fig. 10 (a)Revenue (2014-2024), Netease (b)Net Profit (2014-2024), Netease

Revenue of Netease has increased all over till 2023. The profit increased till 2023. The revenue and profitability growth was boosted by stronger demand.

The dips were due to stronger Chinese regulations on Chinese firms and gaming in China.

3.3.4. Sea Limited

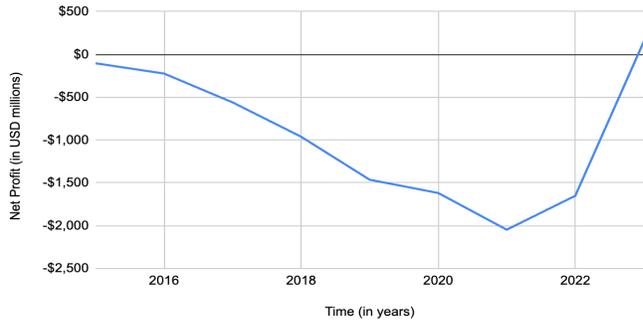
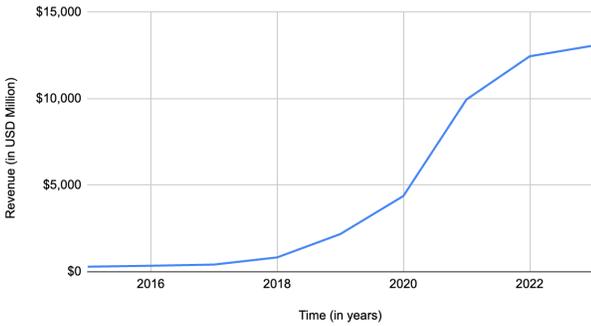


Fig. 11 (a)Revenue (2015-2024), Sea Limited (b)Net Profit (2015-2024), Sea Limited

Revenue of Sea Limited has increased all over till 2024. The profit decreased till 2021 and then increased to 2023. Revenue has increased exponentially due to increased

demand, profits fell, and loss increased due to increased marketing costs, but this was reversed in 2022-24 due to a reduction in marketing budgets.

3.3.5. Electronic Arts

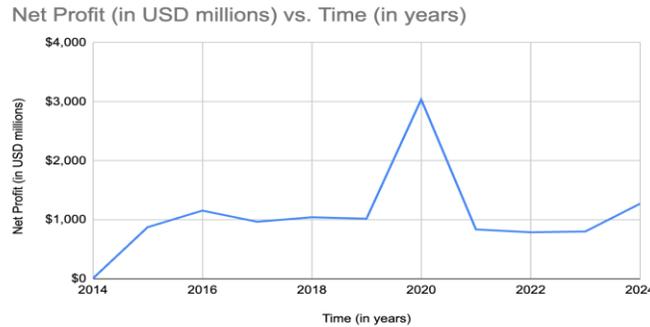
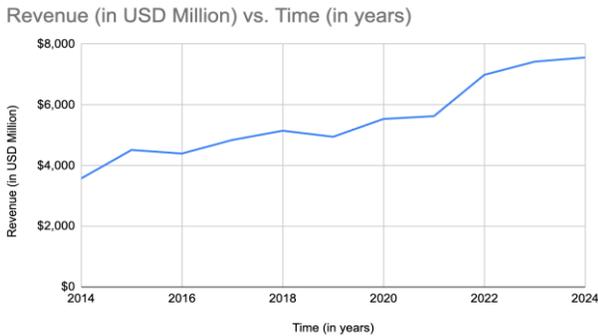


Fig. 12 (a)Revenue (2014-2024), Electronic Arts (b)Net Profit (2014-2024), Electronic Arts

Revenue of Electronic Arts has increased all over till 2024. The profit increased till 2020 and then decreased till 2023, with a slight increase in 2024. The revenue has increased due to stronger demand and has exceptionally

increased in the years when the FIFA World Cup matches happened. Profits collapsed in 2024 due to a lack of new content post-Doha 2022.

3.3.6. Take-Two Interactive Software

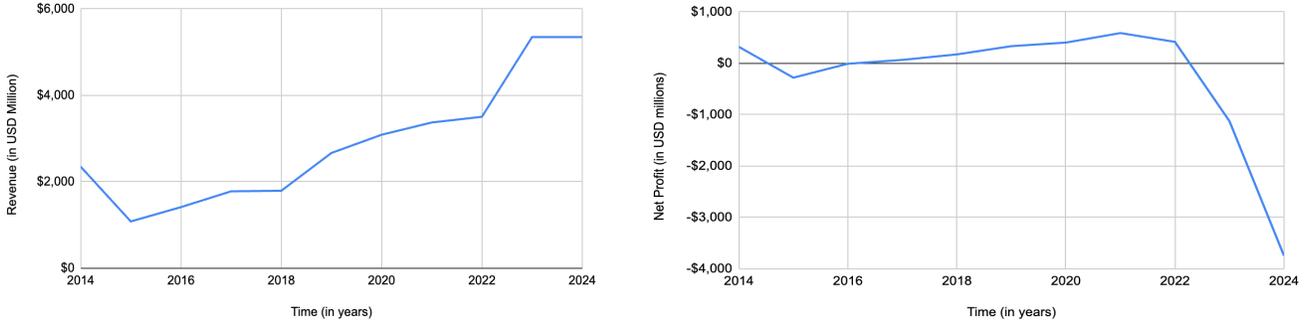


Fig. 13 (a)Revenue (2014-2024), Take-Two Interactive Software (b)Net Profit (2014-2024), Take-Two Interactive Software

Revenue of Take-Two Interactive Software has increased all over till 2024. The profit has decreased all over till 2024.

The revenue has increased due to stronger demand, but the profit has decreased due to the higher cost of manpower and the closure of multiple studios.

3.3.7. Roblox

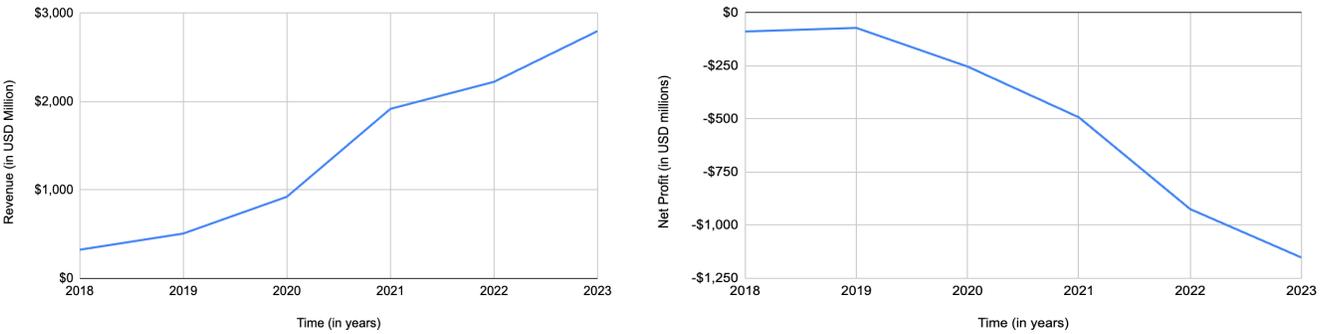


Fig. 14 (a)Revenue (2018-2024), Roblox (b)Net Profit (2018-2024), Roblox

Revenue of Roblox has increased all over till 2024. The profit has decreased all over till 2024. The increased revenue is due to increased demand for Roblox, and the

decreased profits, amounting to more than a billion USD, are due to decreased Roblox (in-game currency demand) and higher marketing budgets.

3.3.8. Gamestop

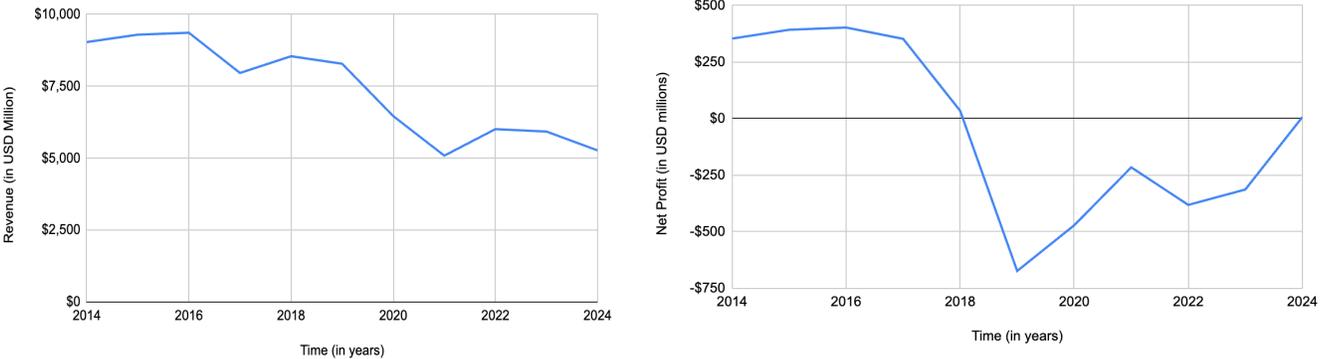


Fig. 15 (a)Revenue (2014-2024), Gamestop (b)Net Profit (2014-2024), Gametop

The revenue of Gamestop has decreased all over till 2024. The profit decreased all over till 2020, and then it increased to breakeven in 2024. The revenue and profit have

declined over the due to their reliance on brick-and-mortar stores in the US, which is a dying concept with a lack of interested clientele. (as discussed in the discussion section below).

3.3.9. Unity Software

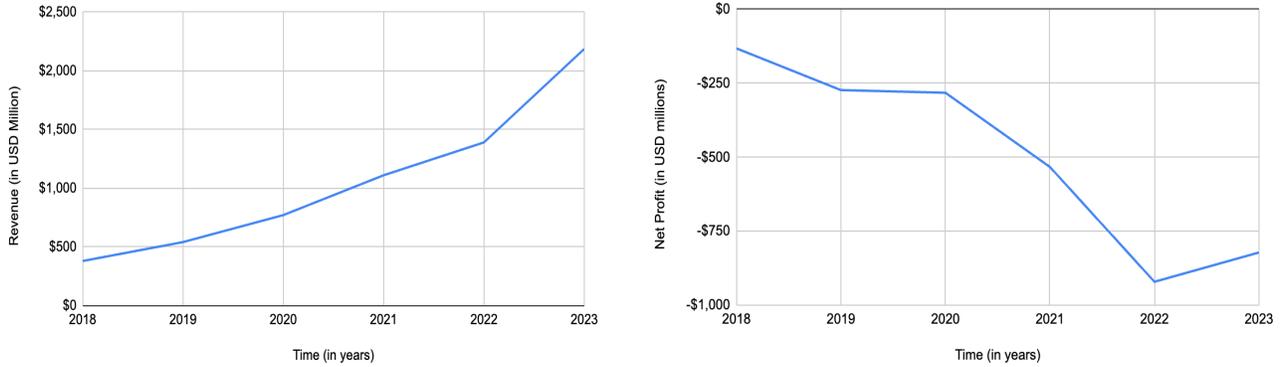


Fig. 16 (a)Revenue (2018-2024), Unity Software (b)Net Profit (2018-2024), Unity Software

Revenue has increased all over till 2024. The profit has decreased all over till 2024. At the same time, the profit increased in 2024. The increased revenue was due to increased demand for software, whereas profits diminished due to unsustainable spending endeavours. The growth of revenue has decreased or slowed down for all toy firms except FUNKO and Spin Master. Mattel and JAKKS Pacific have seen a decrease in revenues overall from 2014, while others have seen a gradual increase. If net profit has become negative - net loss - then the rate of increase of loss is increasing.

However, if profit is positive, the rate of increase of profit is decreasing, except in the case of Build-A-Bear, Spin Master and Mattel. Net profit is positive for all firms except for Hasbro, and FUNKO, who are witnessing net losses. The growth of revenue has been exponential rather than linear for all gaming firms. All firms have highly cyclical growth and decrease patterns in net profits, with exponential growth and decrease, except for Nintendo, Take-Two Interactive Software, Roblox, and Unity Software, which have seen an overall linear decrease or an overall linear increase. All firms have negative net profits, hence net losses, which have decreased at an increasing rate over the last 5 years, except for Tencent Holdings, Nintendo, Netease, and Electronic Arts, which have positive profits. Gamestop is the only firm currently at a breakeven, post a climatic decline in profits and a re-growth in a period of one year.

4. Discussion

4.1. Overproduction, Underproduction and Digitisation

Post-COVID-19 and the collapse of Toys-R-Us in 2017, the toy industry has faced significant challenges. The global supply chain crisis, coupled with the cost of living crisis in major countries like the UK, has diminished global demand for toys. This demand has become primarily seasonal, peaking in Q1 and Q4. Reports from companies like Mattel, Hasbro, and Build-A-Bear indicate that global retailers are tightening deadlines, often placing rushed

orders just weeks before peak seasons. This tight scheduling not only increases shipping costs but can result in empty shelves and delayed product availability, leading to financial losses and negative consumer perceptions. Additionally, rising labour costs in manufacturing countries such as China, Mexico, Thailand, Indonesia, and Vietnam [4], combined with geopolitical tensions in Eastern Europe and the Middle East, have exacerbated supply chain disruptions.

Conflicts like the Russia-Ukraine war and tensions in the South China Sea impact global shipping routes, increasing costs and affecting the timeliness of deliveries. Bulk ordering to mitigate costs often leads to overproduction and dead stock, as goods may suffer wear-and-tear during non-peak seasons, diminishing quality and brand perception. The increased inflationary pressures and macroeconomic challenges have also led retailers to charge more for prime shelf space, further straining toy companies [5].

Build-a-Bear, the first one affected by the zombie-ization of malls, launched The Bread Builder, an online customizer of the bear's children once used to build in malls, to capture the online segment, where transportation was easier, control of supply was relatively better. The reach of Build-a-Bear was limited to the Americas, but the launch of the Bear Builder helped it expand in other markets as well [6].

According to Funko's Q1 2023 financial report, DTC sales grew by 61% to US\$41 million compared to the same quarter last year. This accounts for 17% of Funko's total Q1 2023 net sales, beating out its biggest brick-and-mortar retail partner, Walmart (11%) [7]. Lego (a private toy firm based in Denmark) has undergone a huge change programme, moving to a MACH (microservices, API-led, cloud-based, headless) platform with vendor commerce tools. At the same time, the investments have helped the firm - For instance, LEGO introduced 100 new products on January 1, 2020, and it was able to log 35 orders per second, or 2,000 orders per minute. This led to increased revenue growth - 10.5% in 2019-2020 and approximately 21% in 2020-21 and 48.1% in 2021-22 - according to multiple reports [8].

4.2. Costs of Labour

China has always dominated global toy manufacturing and manufacturing in general. This is due to the abundance of cheap labour providing decent quality services less than its neighbouring countries and a fraction of the cost to produce in the Americas or Europe. However, according to the International Monetary Fund, the end of cheap labour in China has already come. This was promoted by the one-child policy, seeing an excess population. However, this policy became disastrous, leading to a decrease in population growth [9]. Since 2010, the cost of labour in China has increased by a staggering 120%, according to reports [10]. According to a report by the Ministry of Labour and Social Affairs of Vietnam, the cost of labour has increased by 450% in a period of 20 years, calculated in dong\$/labour/year [11]. In Korea, according to the CEIC, the cost of labour has increased by 12% [12]. As the stock is not selling and the cost of labour is increasing, with prices also increasing, companies are facing losses in multiple product categories. Labour and operational costs are leading multiple firms to discontinue manufacturing in countries.

4.3. Raw Materials Costs

4.3.1. Plastics

Polyethylene (PE), Polypropylene (PP), Polyvinyl Chloride (PVC), and Acrylonitrile Butadiene Styrene (ABS) are the major plastics used in the production of toys. However, major movements against plastics, along with an increase in taxes for plastics products in multiple countries, followed by the New Plastics Economy Global Commitment led by the Ellen MacArthur Foundation in collaboration with the UN Environment Programme, where multiple toy firms are signatories in, like Mattel, Hasbro, Spin Master, and so on [13]. However, companies are targeting to diminish the use of plastics, especially for packaging materials. According to the U. S. Bureau of Labour Statistics, the cost of producing plastics has increased by 127.761% from 2014 to 2024 [14]. The rising costs of plastics have profoundly impacted the toy industry, a sector heavily reliant on these materials for their production.

4.3.2. Cotton, Memory Foam, Fleece

The demand for stuffed toys has surged, with the industry growing at approximately 7.55% CAGR. This growth requires significant shelf space and has driven up the costs of synthetic materials like memory foam and fleece. As demand for synthetic goods rises, the demand for natural fibres such as cotton and wool has decreased, resulting in a 12.5% drop in cotton prices over the last 10-15 years [15]. This price decline benefits companies like Build-A-Bear, which has seen increased earnings despite other firms experiencing decreased or negative earnings. Conversely, the cost of plastics and synthetic materials continues to rise, exacerbated by upcoming carbon taxes in major producing nations and the World Bank's 2023-24 carbon credit [16]

and taxation legislation. While carbon taxes are being implemented more rapidly, the shift to renewable energy sources like solar and wind remains slow due to high capital costs and evolving consumer attitudes.

4.3.3. Alternative Materials

Despite their high production and purchase prices, alternative materials like wood, rubber, silicon, and bamboo have recently become popular in manufacturing toys. The finished products also happen to be more popular among well-off consumers - for example, John Lewis registered sales boosts relating to wooden toys [17]. Preferred due to, among other reasons, their durability and aesthetic value as well as the fact that they easily biodegrade; manufacturing wooden toys is expensive and laborious. The current problem with the market of wooden toys is that, after the Natural rubber recently became a popular substitute material for the toy industry due to increasing pressure on safety, flexibility, and environmental issues.

Having been influenced by active demand all over the world, the price of rubber was very high at the beginning of the 2010s, which then dropped abruptly after 2015 because of oversupply [18]. This decline in the price of rubber did have a positive impact on the toy industry in terms of production cost stabilization, along with innovation featuring rubber-based toys. The toy industry is moving to sustainable, non-plastic packaging materials. Though their costs are higher than plastic alternatives, the idea is to avoid any potential plastic tax that may be levied shortly and also to meet the rising consumer demand for a greener product [19] [20]. Companies such as Lego and Mattel have already invested large amounts in sustainable packaging initiatives; this trend toward sustainability not only benefits marketing and better ESG ratings but also saves from regressive taxation.

4.4. Cyclicity and Global Conflict and its Impact on the Gaming Industry

Even when compared to the toy industry, the gaming and esports industry is highly cyclical. Massive growth is seen in Quarter 3 and Quarter 4, with growth approximately 75% less in Quarter 1 and Quarter 2 [21]. This is due to the industry mainly being focused upon school and college holidays, which majorly happen during this season. At the same time, it is noticed that this industry focuses more on the youth (under 30), compared to the toy industry, which focuses on all ages for its games and toys.

The gaming industry often thrives during global conflicts and epidemics as more people stay home, making online games easily accessible. For instance, Roblox saw a 171% increase in bookings from 2019 to 2020 and a 23% increase from 2022 to 2023, driven by increased gaming during COVID-19 lockdowns [22]. According to Take-Two Interactive's annual report, companies can continue selling e-merchandise during conflicts, provided the nations involved are not sanctioned [23]. However, developers in conflict zones face significant challenges. For

example, the Ukraine conflict has caused delays and financial strain for developers like 4A and Kevaru. Sanctions and trade restrictions can limit access to essential technology, hindering development [24].

4.5. Cost of Developing Games

The increasing costs associated with hiring talent are due to larger economic issues. As inflation and the cost-of-living rise in many regions, employees expect higher salaries to maintain their standards of living. This creates additional pressure on game development studios to meet these expectations, potentially leading to further increases in labour costs. In response, studios may need to explore alternative approaches to talent acquisition and retention, such as offering comprehensive benefits packages, fostering inclusive work environments, or investing in employee development programs. Companies like Valve have created flat organizational structures that prioritize employee autonomy, which can help attract and retain talent without relying solely on financial incentives [25].

Also, the impact of rising talent costs extends beyond the immediate financial implications for game development studios. Increased labour expenses can lead to budget constraints, forcing companies to make changes regarding project scope, marketing, and post-launch support. Talent shortage globally in these fields is leading to excess costs. Though firms are organizing talent and skill development programmes, they will not help solve the long-run issue of lack of talent [26]. According to senior partners and analysts at Bain and Co., they expect the use of AI in the gaming industry to be more than 50% in the near future. Bain reviewed 21 industry specialists, finding that most see generative AI as improving quality and speeding up game development. Generative AI is expected to help create bigger, more immersive, and personalized experiences. However, only 20% of executives believe it will reduce costs despite high development expenses [27].

4.6. DLCs, In-Game Purchases, and In-Game Currency

Though companies can earn initial income from customers if they purchase the game, however in this case and the case of free games like Roblox, high levels of income and revenue can only be generated by producing newer buyable content and also by personal financing through in-game currency. This drives revenues in the games. Some famous ones include Robux (Roblox), CP (Call of Duty), V-bucks (Fortnite), Coins and Gems (Clash of Clans), and so on. These purchases happen through mediums like the App Store, the Play Store and so on. Purchases of DLCs and skins also promote growth, especially if this is done in some collaboration, which helps in-game marketing and also influences people to buy their favourite movie or characters in their favourite game. These boost the ARPU, and high-quality DLCs boost first-time game purchases in lieu of purchasing DLCs.

Psychologically, the use of virtual currency can create a perception of value and drive players to spend more [28]. In 2023, Roblox derived 30% of its revenue from Robux sales through the Apple App Store and 17% from the Google Play Store. Similarly, Fortnite generated over \$2 billion in revenue from V-Bucks in 2018 [29]. The gaming industry broadly relies on microtransactions, including but not limited to gacha systems, to drive revenue. The gacha model, prevalent in Japan, involves players spending in-game currency for a chance to receive random virtual items or enhancements. This system employs variable ratio reinforcement, where the unpredictability of rewards encourages players to spend repeatedly. Games like Genshin Impact, Fire Emblem Heroes, and Fate/Grand Order have successfully implemented this model [30, 31], also contributing to a significant \$90 billion increase in industry revenue overall from microtransactions in 2023.

4.7. Film and Brand Collaboration

Film and media collaboration is helping growth in the toy and gaming industries. In this new-age marketing strategy, by not focusing on advertisements and newspapers, the focus has shifted to media and film collaborations. Famous toy movie collaborations like the Barbie Movie, the Lego Movie, the upcoming UNO movie, the G. I. Joe Series, the Transformers Series, Trolls, My Little Pony and so on. The best example can be the Barbie movie. The Barbie movie generated 1.45 Billion USD in revenue and was an instant success lasting about a year of social media trends post its release. Out of this, Mattel, its licensing partner, received a 5% commission from the revenue generated, along with a percentage of profits, which, according to the CEO of Mattel, reached about 150 Million USD. Mattel credited the film with a 9% year-on-year increase in sales between July and September to \$1.9bn (£1.6bn). That included a 27% jump in doll sales, which was driven by demand for toys from its Barbie, Monster High, Disney Princess and Disney Frozen lines. Their results benefited from the success of the Barbie movie, which became a global cultural phenomenon and marked a key milestone for Mattel [32, 33, 34]. This proves the overall impact of movies on the toy industry. Similar cases include the Lego Movie. The release of the Lego movie raised the revenue of Lego by 25% in the year of release 2015 and also increased profits by 7%. This led to, for the first time, no product recalls of any line of brands under the Lego Group [35, 36]. Similarly, famous gaming movies and series include The Last of Us, Uncharted, Prince of Persia, the Angry Bird Movies, Resident Evil, Assassin's Creed, Sonic the Hedgehog and so on. The story play of Last of Us boosted Last of Us resales, and According to a new report from the NPD Group, *The Last of Us: Part I* jumped from number 36 on its best-seller chart in December to number 11 in January [37]. Similarly, for Angry Birds, First-half revenue rose to 152.6 million euros (\$179.7 million) from 78.5 million a year earlier, while adjusted EBITDA increased to 41.8 million euros from 11 million in just a year [38]. Films help generate not only profits for the producing companies and studios but also derive demand for other products, which is more long-term.

5. Conclusion

The gaming and toy industries are ones which are intermingled in human life. They not only impact human emotions and humanity's history but also tap into global economic conditions. The paper serves in helping to solve the knowledge gap and the novelty of information on this domain was found while conducting the research. With a total market capitalization of 1.5 Trillion USD, studying both industries is necessary to understand consumer demand and the consumer discretionary industry. With the gradual phasing out of the toy industry, the resurgence can be through alternative ways of selling and marketing through films and pictures. Climate change, cost of labour and shipping, and even education affect the minutes of the toy industry.

The newer 50-year-old gaming industry is slowly displacing this 50,000 year old industry. Gaming poses a future for a digital world, with fluctuating production costs, excessive marketing budgets, child privacy and protection, and also a future for cryptocurrency and digital currencies.

However, going back to humanity's roots in this fast-paced world is also important, and hence, keeping a hand in the toy industry is not only necessary but a requirement.

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References

- [1] Oxford Reference - Answers with Authority, Oxford Reference. [Online]. Available: <https://www.oxfordreference.com/>
- [2] Felicia McMahon, Toy | Definition, History, & Facts, Encyclopedia Britannica, July-20, 1998. [Online]. Available: <https://www.britannica.com/technology/toy#:~:text=History%20of%20toys,-clay%20model%20of&text=Objects%20with%20human%20and%20animal,%2C%20or%20painted%20terra%2Dcotta>
- [3] Jill Elikann Barad, American Businesswoman, Britannica Money. [Online]. Available: <https://www.britannica.com/money/Jill-E-Barad>
- [4] Chris Williamson, Labour Costs Keep Inflation Elevated Worldwide in June, Market Intelligence, 2023. [Online]. Available: <https://www.spglobal.com/marketintelligence/en/mi/research-analysis/labour-costs-keep-inflation-elevated-worldwide-in-june-jul23.html#:~:text=Persistent%20labour%20cost%20pressures&text=These%20data%20inform%20us%20that,run%20average%20again%20in%20June>
- [5] Mattel, Inc., Form 10-K 2022, Annual Report 2022. [Online]. Available: https://s201.q4cdn.com/696436908/files/doc_financials/2022/ar/Mattel-2022-Annual-Report-Web-Ready.pdf
- [6] Salesforce, Build-A-Bear Plans to Accelerate its Digital Transformation with Salesforce, 2020. [Online]. Available: <https://investor.salesforce.com/press-releases/press-release-details/2020/Build-A-Bear-Plans-to-Accelerate-its-Digital-Transformation-with-Salesforce/default.aspx>
- [7] Cole Watson, The Big Value in Building Alternative Retail Channels, Kidscreen, 2023. [Online]. Available: <https://kidscreen.com/2023/09/14/the-big-box-value-in-building-alternative-retail-channels/>
- [8] Derek du Preez, LEGO moves to Headless E-Commerce to Improve Customer Experience, Diginomica, 2021. [Online]. Available: <https://diginomica.com/lego-moves-headless-e-commerce-improve-customer-experience>
- [9] Mitali Das, and Papa N'Diaye, The End of Cheap Labor- Finance & Development, International Monetary Fund, 2013. [Online]. Available: <https://www.imf.org/external/pubs/ft/fandd/2013/06/das.htm>
- [10] The Economist, Global Firms are Eyeing Asian Alternatives to Chinese Manufacturing, The Economist, 2023. [Online]. Available: <https://www.economist.com/business/2023/02/20/global-firms-are-eyeing-asian-alternatives-to-chinese-manufacturing>
- [11] Nguyen Huu Cung, and Liu Hua, "Tax Burden and Foreign Direct Investment: Theory and Practice in Vietnam," *Advances in Management & Applied Economics*, vol. 3, no. 3, pp. 85-103, 2013. [Google Scholar] [Publisher Link]
- [12] South Korea Unit Labour Costs: OECD M Member: Annual, Unit Labour Costs: Index, CEIC. [Online]. Available: <https://www.ceicdata.com/en/korea/unit-labour-costs-oecd-member-annual>
- [13] UN Environment Programme, The New Plastics Economy Global Commitment. [Online]. Available: <https://www.unep.org/new-plastics-economy-global-commitment#:~:text=Launched%20in%20October%202018%20by,never%20becomes%20waste%20or%20pollution>
- [14] Annual Production of Plastics Worldwide from 1950 to 2022, Global Plastic Production, Statista, 2024. [Online]. Available: <https://www.statista.com/statistics/282732/global-production-of-plastics-since-1950/>
- [15] Fibre2Fashion, Cotton Costs May Drop 2% in 2024, Synthetic Fibres' May Rise: S&P GMI, Speakable Content, 2024. [Online]. Available: <https://www.fibre2fashion.com/news/textiles-logistics-news/cotton-costs-may-drop-2-in-2024-synthetic-fibres-may-rise-s-p-gmi-293451-newsdetails.htm>

- [16] World Bank Group, Global Carbon Pricing Revenues Top a Record \$100 Billion, World Bank, 2024. [Online]. Available: <https://www.worldbank.org/en/news/press-release/2024/05/21/global-carbon-pricing-revenues-top-a-record-100-billion>
- [17] John Lewis Partnership, John Lewis & Partners Announces Predicted Top Ten Toys for Christmas, 2019. [Online]. Available: <https://www.johnlewispartnership.co.uk/media/press/y2019/jl-and-p-predicts-top-ten-toys-for-christmas.html>
- [18] Global Rubber Prices Nosedive over Glut Scare, European Rubber Journal, 2014. [Online]. Available: <https://www.european-rubber-journal.com/article/2074344/global-rubber-prices-nosedive-over-glut-scare>
- [19] Talk is Cheap: How Much Will Consumers Really Pay For Green Products? McKinsey & Company, 2024. [Online]. Available: <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/talk-is-cheap-how-much-will-consumers-really-pay-for-green-products>
- [20] EY Global, Why tax and Finance Functions Must Pay Heed to Plastic Taxes, 2021. [Online]. Available: https://www.ey.com/en_gl/insights/tax/why-tax-and-finance-functions-must-pay-heed-to-plastic-taxes
- [21] Video Game Industry - Statistics & Facts, Statista, 2024. [Online]. Available: <https://www.statista.com/topics/868/video-games/#statisticChapter>
- [22] Roblox Corporation 2023 Proxy Statement and 2022 Annual Report, Roblox Corporation, 2023. [Online]. Available: https://s27.q4cdn.com/984876518/files/doc_financials/2022/ar/roblox_2023-proxy-and-2022-annual-report_web-ready.pdf
- [23] Take-Two Interactive Software, Inc., Annual Report, 2022. [Online]. Available: <https://taketwointeractivesoftwareinc.gcs-web.com/static-files/9aa44006-1d93-43cf-99f8-3763578e29f6>
- [24] Brendan Lowry, Metro Exodus dev Offers Update on the Next Game Amid Ukraine War, Releases Modding SDK, Windows Central, 2023. [Online]. Available: <https://www.windowscentral.com/gaming/4a-games-offers-update-on-the-next-metro-amid-ukraine-war-releases-sdk>
- [25] Cornerstone Editors, Flat-Structure Organizations: Realistic or Impossible? Cornerstone. [Online]. Available: <https://www.cornerstoneondemand.com/resources/article/flat-structure-organizations-realistic-or-impossible/>
- [26] Shannon Eustace, University of Suffolk to Run Esports Undergraduate Degree Course, BBC News, Suffolk, 2024. [Online]. Available: <https://www.bbc.com/news/uk-england-suffolk-68674140>
- [27] Anders Christofferson, Andre James, Tom Rowland, and Imogen Rey, How will Generative AI Change the Video Game Industry?, Bain and Company, 2023. [Online]. Available: <https://www.bain.com/insights/how-will-generative-ai-change-the-video-game-industry/>
- [28] Jon-Christian Pass, Why we spend: The Psychology of Virtual Currencies in Online Games, 2024. [Online]. Available: <https://www.linkedin.com/pulse/why-we-spend-psychology-virtual-currencies-online-games-pass-0t8ye>
- [29] Roblox Corporation 2024 Proxy Statement and 2023 Annual Report, pp. 1-238, 2024. [Online]. Available: https://s27.q4cdn.com/984876518/files/doc_financials/2023/ar/roblox-2024-proxy-and-2023-annual-report.pdf
- [30] Game Marketing Genie, The Impact of the Gacha Game System on Video Game Monetization, 2022. [Online]. Available: <https://www.gamemarketinggenie.com/blog/gacha-game-monetization>
- [31] Michigan Journal of Economics, Is Gacha Gaming a Profitable Strategy?, April-19, 2022. [Online]. Available: <https://sites.lsa.umich.edu/mje/2022/04/19/is-gacha-gaming-a-profitable-strategy/>
- [32] Joan Verdon, Barbie Movie Boosted Mattel's Sales, But Investors Held Their Applause, Forbes, October -26, 2023. [Online]. Available: <https://www.forbes.com/sites/joanverdon/2023/10/25/barbie-movie-boosted-mattels-sales-but-investors-held-their-applause/>
- [33] Sam Forsdick, Mattel's Brand Chief on Barbie's Impact and What's Next for the Toymaker, Raconteur, April-8, 2024. [Online]. Available: <https://www.raconteur.net/marketing-sales/mattel-brand-chief-barbie-movie-impact>
- [34] Danny Parisi, The 'Barbie' Movie's Impact on Culture and Mattel, Glossy, December-22, 2023. [Online]. Available: <https://www.glossy.co/fashion/the-barbie-movies-impact-on-culture-and-mattel/>
- [35] Erlisa Demneri, 'The LEGO Movie' 10-Year Retrospective: Building a Legacy of Creativity and Great Marketing, The Harvard Crimson, March-5, 2024. [Online]. Available: <https://www.thecrimson.com/article/2024/3/5/the-lego-movie-10-year-retrospective-legacy-creativity-marketing/>
- [36] 5 Reasons The LEGO Movie is the Greatest Branded Content Ever, More Awesome than an Awesome Possum, Medium, January-28, 2017. [Online]. Available: <https://medium.com/the-mission/5-reasons-the-lego-movie-is-the-greatest-branded-content-ever-f73fd444bb0e>
- [37] Jay Peters, HBO's The Last of Us TV show is pushing the Game up the Sales Charts, The Verge, February-13, 2023. [Online]. Available: <https://www.theverge.com/2023/2/13/23597863/hbo-the-last-of-us-tv-show-game-part-i-sales-npd-group>
- [38] Giancarlo Valdes, 'The Angry Birds Movie': How Rovio Turned its Hit Game into an Animated Film, GamesBeat, May-22, 2016. [Online]. Available: <https://venturebeat.com/games/the-angry-birds-movie-how-rovio-turned-its-hit-game-into-an-animated-film/>
- [39] Yahoo is Part of the Yahoo Family of Brands. [Online]. Available: <https://finance.yahoo.com/>