CLASH OF THE CONSOLES

A COMPETITIVE ANALYSIS OF THE CONSOLE GAMING INDUSTRY

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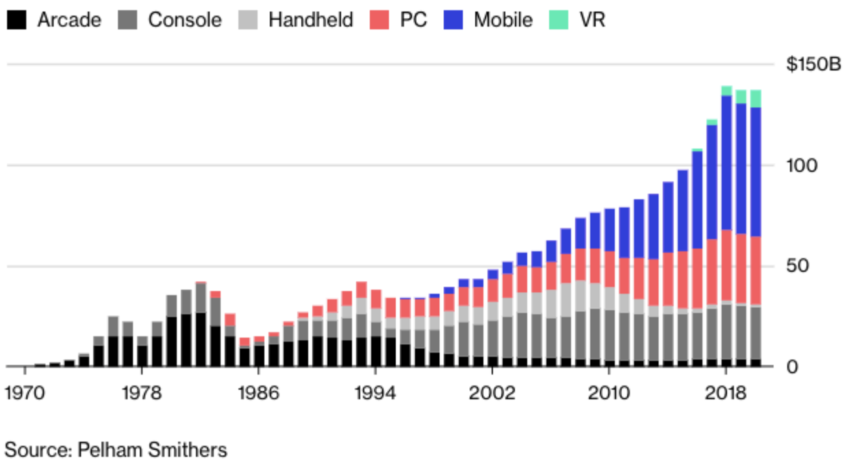
INTRODUCTION

The video game industry has been at the centre of major changes in the competitive landscape, as well as the technological shift that has made games more enjoyable. This term paper discusses how, across nine generations, from 1975 to 2024 primarily focusing on the competitive dynamics between market stalwarts from the fifth to the ninth generations. Video games transitioned from serving as a replacement for arcades to becoming a $347 billion industry. It also serves as an example of how the competitive nature of industries has evolved and how different key stakeholders dictated the dynamics in an **oligopolistic market**. The discussion includes how pitfalls and various competitive strategies enabled them to develop key core competencies that differentiated them in the market. We also see how the industry changed with different technological adoption over the different generation occurred.



Distribution of video gaming technologies used over the decades

WHERE DID IT ALL START?

Games have been at the crux of our civilization since man discovered how to play with sticks and stones. Video games in particular have been an essential part of many childhoods, making it a generational phenomenon that has been alive for decades since the first Atari consoles were launched back in 1975.

This **First-mover advantage** had given Atari a competitive edge by tapping into a market that had not been looked into before. Some may even call it disruption. This move helped bring significant value, and apart from defining standards in the video game industry, it helped shape market expectations and gaming experiences for consumers.

Before this period, the video gaming industry was a '**Blue Ocean**'. Akin to a vast expanse of water, it had little competition and boundaries that were not visible. But this was exactly the kind of environment that would soon grow to become a multibillion-dollar industry in the decades to come. During this period the generation shifted from seeing video games in the arcades to having these games at their fingertips.

With its introduction to the market, Atari was like a storm taking over the Blue Ocean. Along with offering popular arcade titles such as "Space Invaders" and "Pac-Man", it was able to bring something that we to this day 2024 have come to like, 'convenience'.

A **SWOT analysis** of Atari highlights several key points about the company. Among its strengths, Atari was recognized for its innovation and strong brand recognition, establishing itself as a pioneer in the industry. However, the company's weaknesses were visible in its rapid expansion, which brought forth looming quality issues. On the opportunity front, Atari had the potential to expand its presence in home markets across the US. Despite these prospects, Atari faced significant threats, including emerging competition, customer fatigue, and regulatory challenges, all of which made the company vulnerable to disruption.

By shifting away the stage of entertainment from the arcades that ran on parents' pennies, children and game enthusiasts alike could convert their living rooms into an additional unit on top of the setup box. They were also able to control their value chain by integrating the software and hardware connect by developing different aspects of this new industry. Economies of scale, licensing and partnerships, and brand leverage—everything seemed to be going great for Atari.

With over a decade of succeeding in positioning themselves as the monopoly in the industry, the clear skies above the ocean seemed to be on the forecast. The 1980's signalled the collapse of the industry. From market saturation in the hopes of riding on the Atari train, lack of quality control during game production, or even Atari's disaster during the production of the game E.T.[1], the market began looking at this industry as a passing fad.

Atari's failure to produce high quality games in the 1980's

In retrospect, under the **Resource-Based View framework**, Atari had the potential to leverage its existing momentum to turn this situation upside down. They had significant capabilities in their portfolio. However, by incorporating heterogeneous advantages, they could have achieved a competitive advantage and sustained it over time. By creating new gaming technologies, something Unity and others have done in the current era, investing in proprietary game development tools, and even focusing on securing patents that were inimitable, they could have built a durable advantage that would have lasted them during this period. Furthermore, embracing a strategy of continuous innovation and adaptation could have allowed Atari to predict the shifts in the market and consumer demands, similar to how today's gaming giants anticipate and shape consumer preferences.

THE RESURECTION OF THE INDUSTRY BY NINTENDO

External market forces also had a big part in the collapse; internal issues were not the only cause. Consoles were unable to meet the new forms of entertainment and useful applications that personal computer devices brought about. This change encouraged customers to spend money on personal computers, which provided both gaming and useful features. Furthermore, Atari found it difficult to compete with the introduction of superior games and cutting-edge technology brought about by new market entrants like Nintendo in 1983.

What Atari, Mattel, Coleco, and other companies at the time failed to do, Nintendo did better. They carved out a niche by focusing on differentiation, which allowed them to increase value for customers rather than just competing with half-baked products. This strategy was essential to revive the falling interests of consumer segments. By launching the Famicom, Nintendo also adopted a cost-focus approach, effectively targeting both sides of the focus strategy coin.

Nintendo maintained tight control over its process, ensuring that only games vetted by Nintendo could be played on its systems. This control extended to manufacturing, which they subcontracted out to multiple companies. This strategy not only reduced the bargaining power of suppliers but also kept assembly in-house to prevent replication of their technology. Such measures further strengthened Nintendo's position within the **VRIO framework (Refer to Exhibit 1)**, enhancing its competitive advantage by making it difficult for competitors to imitate their business model and maintaining the rarity of their gaming experience.

During this period Nintendo leveraged its position and created exclusive contracts to prevent the licenses from producing games for Nintendo's competitors. They created barriers to entry for potential competitors as well. Nintendo adopted competitive methods that are commonly linked with monopolies. These strategies included price discrimination, market scarcity, hurdles to entry, and market power. By using these tactics, Nintendo was able to repel rivals such as Atari and hold onto its leading position in the video game industry, thus solidifying its position as the only player with a monopoly.

Nintendo improved its capacity for quick innovation while simultaneously reducing costs by taking more control over every aspect of its supply chain, from manufacturing to distribution. Ensuring that all organizational efforts were directed toward the goal of controlling the video game business, Nintendo's concentrated mission statement was supported by this strategic control.

SONY'S PLAY WITH ITS PLAYSTATIONS

Sony had one main objective in mind when breaking into the console industry: **Product Differentiation.** Sony created the Sony PlayStation in 1994 that facilitated 3D games. This allowed them to increase their willingness to pay for the consumers, for the games produced by this console. They were also able to tap into **value innovation** by utilizing CD's[2] that allowed for larger content storage, essentially increasing the quality of the game content. This additionally helped them decrease manufacturing costs as compared to cartridges used by Nintendo, allowing them to increase the consumer surplus given to the video game fans. Sony believed in variation, giving a wider variety of game options to feed into the different niches of consumer segments, such as action, adventure, sports, and RPG, thereby capturing a broad market base and appealing to diverse gaming preferences.

Through these processes, they were able to develop strategic alliances by partnering with game developers for exclusive titles while enhancing the PlayStation's game library. These partnerships were crucial in securing a competitive edge, as exclusive titles like "Final Fantasy VII" and "Metal

Gear Solid" became associated with the PlayStation brand, drawing in gamers who sought these unique experiences.

This strategic approach allowed Sony to dominate the US market, achieving a record **60%** market share followed by the former champion Nintendo at **30%** and Sega at **5%**[3]. Although Sega had made its introduction with the Genesis console and entered a few years before the PlayStation, the Japanese company had set its sights on becoming the market leader by leveraging these competitive strategies.

SONY's FORRAY WITH PS2 (Price Skimming)

Sony with its PlayStation 2 hit all the right buttons that the predecessor did. Complementing the former console with revolutionary graphics and advancing game studios with higher budgets due to the growing demand for video games from all the different customer demographics. They were also able to grow their target market by incorporating the ability of the PS2 (PlayStation 2) to play DVD's. With this consumers looking to buy DVD players could get the added benefits of a gaming console, thus allowing an entryway into a new generation of gamers.

Sony's entrant into the video game industry at the start of a new era

Sony entered the market with a deliberate approach, entering at a low price of $299 and swiftly securing a significant market share through price skimming. Later, the price was steadily lowered to appeal to a wider spectrum of customers. Together with strong marketing efforts that highlighted the console's multimedia features and excellent gaming experience, this strategy helped to further establish the console's attractiveness to a wide range of consumers.

This key event heralded a new era and a new century of video game competition. It pushed competitors to start to innovate and diversify their offerings allowing for a push for the higher quality games we see today. As 2000 was around the corner, the nature of the market was about to change from singular large entities to a more oligopoly nature.

NEW GENERATION GAMING HARDWARE

The decade of the 2000's witnessed a dynamic and transformative change in the gaming industry, marked by strong competition among console manufacturers battling for market dominance. The 5th generation between 2000 and 2006 had gaming companies releasing new technologies reshaping how games were played. During this time, consoles were beyond simple devices with buttons – incorporating multimedia entertainment changing consumer perceptions. Some key players in this **oligopolistic market** like Sony, Nintendo and Microsoft had fierce competition, incorporating innovative technologies, strategic alliances with software companies, aggressive marketing plans and focused efforts on software development.

A NEW WAY OF MONEY MAKING

Right after the Y2K bug with software developing at a rapid pace, many industries saw widespread adoption of computers and related software. This had a major impact on the gaming industry, altering the money-making strategy for big giants in this space. At the starting of 2001, gaming manufactures made money on software rather than the consoles which were sold below cost **(Refer to Exhibit 2).** Such a move indicated the shift in business models towards software rather than the traditional hardware. This reflected a broader industry trend where financial gains were realized through software or games.

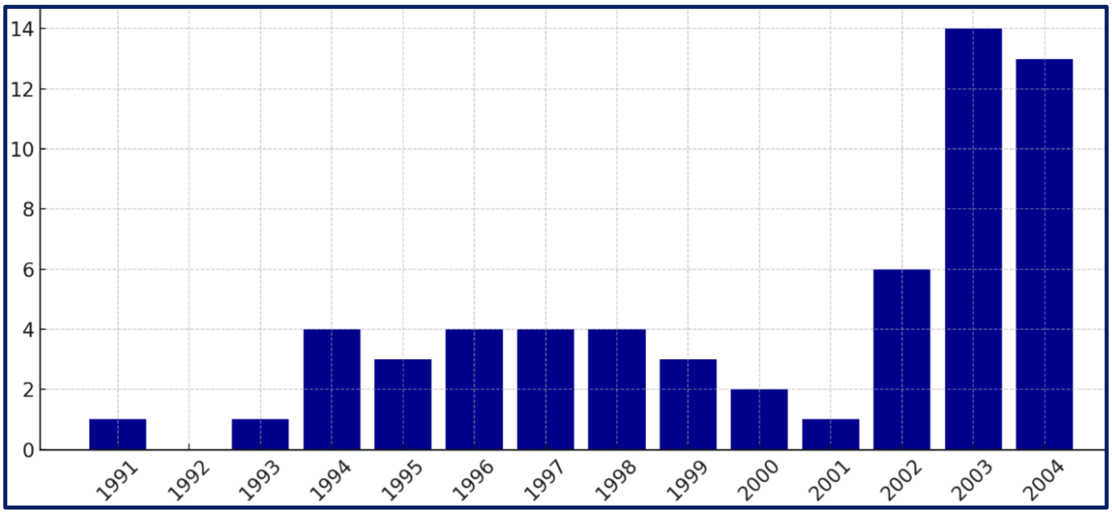
During this period, console manufacturers also played a crucial role as **gatekeepers**. They not only controlled access to their platforms but also managed which games could be developed and sold on their systems. This gatekeeping allowed them to collect royalties on each game sold, compensating for the losses incurred from console sales. Typically, these royalties ranged anywhere from $5 to $7 for every unit sold[4]. This control was crucial in maintaining a steady revenue stream and ensuring quality and compatibility of games offered on their platforms.

The evolution of game development during these years marked a shift from the previous model where companies like Atari handled almost all development internally. By the 1980s, a more **fragmented landscape** emerged with numerous independent developers and publishers entering the scene. This fragmentation was driven by developers desiring more control over their creative projects and financial returns, leading to the rise of third-party publishers and independent studios. This era also saw cycles of fragmentation followed by consolidation, where larger publishers acquired successful studios to secure popular game franchises and talent, thereby blocking competitors from gaining these valuable assets.

Franchise development became a critical strategy for success and revenue generation within the industry. Iconic series like Capcom's Street Fighter demonstrated the profitability of this approach by selling over 24 million console games worldwide[4]. Such franchises not only ensured continual revenue through game sales but also opened avenues for cross-marketing and adaptations, including merchandising and films.

Additionally, the control over **intellectual property** (IP) rights became standard practice, with publishers insisting on owning the IPs to fully capitalize on these assets across various markets. This approach helped diversify revenue streams and maximize the profitability of successful game concepts, ensuring long-term financial benefits for the holders of these rights. Through these strategic adjustments, the video game industry not only expanded its economic footprint but also set the stage for future innovations and market dynamics.

Video game sales by the year 2001, were off the charts when it hit $6 billion. At this point, competition for IP got so strong where gaming companies to avoid paying royalties to independent game developers, started to acquire development studios. These acquisitions peaked by 2003 and by 2006 publishers had acquired and owned several of these studios.



Source: Dan Lee Rogers, "How Top Developers Sold Their Studios," *Game Developers*, March 2, 2004
https://www.gamedeveloper.com/business/the-end-game-how-top-developers-sold-their-studios---part-one

SONY' DISRUPTION IN THE EARLY 2000's

In the period spanning from 2000 – 2006, The Sony Corporation strategically steered through the dynamic landscape of the gaming industry, revamping the entire space by innovative product launches that were critical to the company and consumers. The centerpiece of this era was the release of a groundbreaking box with technology like never before. The PlayStation 2, an unparalleled gaming technology, was one of the biggest hits of Sony' products with record sales of 160 million units worldwide. The CEO Jim Ryan, when asked about what the 2000s brought to mind, said "The 2000s? That would be, I would say, 160 million, which is the number of PS2s that we sold. A high watermark."[5]. This truly showcases how Sony beat competition and created one of the most successful products.

Backward Integration (Disruptive Innovation)

The PlayStation 2 revolutionized hardware and software in consoles with the integration of a DVD player and complete backward compatibility with PlayStation 1 games. This move by Sony helped retain customers and increased brand recognition. As a part of their **strategy of disruption through innovation**, Sony integrated memory cards into their PS2 model[6]. This add-on to the console provided users to expand their game logs, changed how games could be paused and played at any time, increasing consumer satisfaction.

PlayStation Network Adaptor (Value-based Business Strategy)

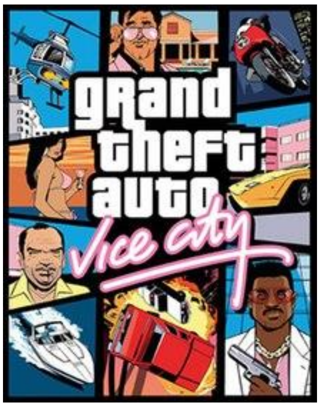
Sony's approach, as a company sought to deliver unmatched value to customers through the PS2's innovative features and entertainment offerings. One of the biggest challenge for gamers in 2000's was playing multiplayer games at their comfort. People had to come together to play on a single console. The advent of internet truly changed the gaming landscape, and monetizing on this aspect - Sony developed an accessory to the PS2 known as a Network Adapter enabling online connectivity. This move by Sony paved the way for multiplayer experiences and this indeed created value to customers. Moreover, independent game developers saw this opportunity to create games that could be played online.

Acquisitions (Strategic Factor Markets)

Sony's strategic maneuvers were greatly influenced by consumer expectations and a business strategy aligned to innovate gaming, delivering value to customers. The company never focused on operational efficiency since their efforts were concentrated on modernization. One way it was disciplined in **operational effectiveness and resource utilization** was by acquiring experts in the dedicated space **(See Exhibit 3)**. An example of this would be Sony's acquisition of Guerrilla Games which was a leader in the game development sector, creating famous games like Killhouse. Additionally, the company leveraged its global presence to gather resources and insights across various regions to craft a perfect product suiting a wide range of consumers across the globe.

HD Graphics (Differentiation & Focus Strategy)

With the growing maturity of the consumers, Sony concentrated its efforts on high-definition graphics and complex game mechanics to cater to adult gamers. By investing in advanced technological hardware, Sony positioned the PS2 as a product creating immersive gaming experiences. The company focused on building strategic partnerships to make it a "Sony" experience. As an example, the famous GTA Vice City was first released on the PS2 in the year 2002 developed by Rockstar games. This game became a major hit among adult gamers around the world selling over 17 million copies over time[7]. This differentiation strategy made Sony carve a niche in the industry attracting many adults to its gaming console.



Grand Theft Auto: Vice City was released in October 2002 for the PlayStation 2, Source: Wikipedia

OTHER GIANTS IN THE OLIGOPOLISTIC MARKET DYNAMIC

Nintendo

While other players like Sony and Microsoft focused on advanced hardware and high graphics, Nintendo took a different approach. The company utilized **Judo Strategy** by emphasizing on innovation and creation. Positioned as an underdog in the industry, it recognized a niche in the industry of handheld gaming devices. Nintendo starting in 2001 released various products like the GameCube, Game Boy Advance SP, and the famous Nintendo DS.[8] Moreover, Nintendo tapped into a market beyond hardcore gamers by venturing into family-friendly games capturing a wider audience.

Microsoft

During the period from 2000 - 2006, Microsoft stepped into this industry with the introduction of the Xbox in 2001. By using several different strategies Microsoft stood as a formidable competitor in the dynamic gaming space. Xbox created much value to its consumers utilizing a **value-based**

business strategy, differentiating itself from other competitors. Xbox through its innovation and a strong online platform with the use of internet connected many users across the world enabling multiplayer features. In 2003, with the launch of Xbox Live Microsoft disrupted the market, stealing market share from competition. With its use of **disruptive innovation**, this online platform had unique features such as game matchmaking and voice chat. This created brand loyalty and created a positive perception of the brand among consumers across the globe. Additionally, value among Xbox users was developed through aggressive pricing tactics.

THE FIGHT IN THE EARLY 2000'S

By the end of 2005, gaming manufacturers engaged in strong competition to gain market dominance with their products. Sony' PlayStation 2 emerged as a strong competitor in this dynamic field with its product innovation, wide variety of games and its global reach. While Microsoft with the Xbox made significant steps towards become a dominant leader in the market through its unique feature offerings and Xbox Live. Meanwhile, Nintendo pursued a strategy to provide a unique experience to customers with handheld products like Game Boy and Nintendo DS.

One example of Nintendo' strategy was the way Nintendo approached handheld gaming with the 2004 release of the Nintendo DS. Sony with its PlayStation Portable, made an attempt to compete in this space, but Nintendo realized it couldn't match Sony's superior hardware capabilities. As a result, Nintendo launched the DS, a portable gaming device with two screens and a touchscreen interface that provided a distinct and user-friendly gaming experience.

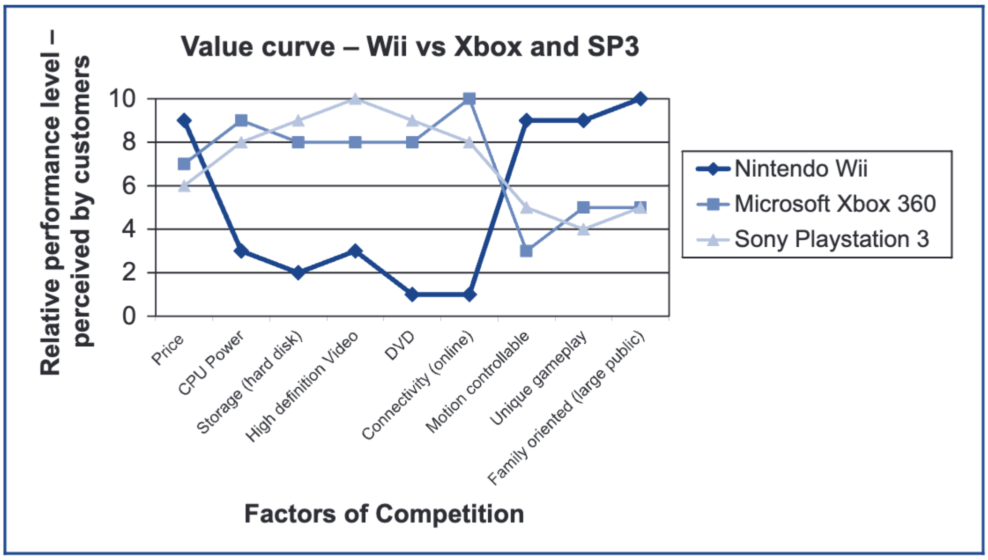
By the start of 2006, Sony came out on top being a market leader with its success of the PlayStation 2, while Microsoft established a presence in the market. Nintendo facing stiff competition from other companies remained strong through its loyal customer base. The battle still continued into the next era of technological advancements.

PLAYSTATION 3 (Strategic Factor Markets)

In November 2006, the PS3 or PlayStation 3 was launched by Sony. It was expected to take over the market, given the success of its predecessor, the PlayStation 2. Sony used its technological expertise and existing brand strength to develop this PlayStation, which incorporated modern technologies such as the Blu-ray player[10] to offer high-definition visuals and a bigger storage capacity aimed at both gamers and multimedia fans. However, Sony's pricing strategy presented a serious issue. Taking a look at the pricing points of the PS3: $499 for the 20GB model and $599 for the 60GB model. These prices put the PS3 in a high-end market compared to its competitors, indicating Sony's confidence in its advanced technology but at the same time, it meant not all segments of the consumer base could afford it.

XBOX 360 (Value-Based Business Strategy)

The Xbox 360 was released in November of 2005, which gave it a year-long head start. To maintain its market position, Microsoft continued to upgrade the Xbox 360, focusing on operational improvements. By 2006, Microsoft had established a strong market presence and was further strengthened by an excellent line-up of games and the strong performance of its online service platform, the Xbox Live. The Xbox 360 was not only more affordable, with prices starting at around $399, but it also offered a gaming experience that attracted hardcore gamers.



Strategy canvas for Nintendo Wii's Original Introduction in 2006, Source: Svend Hollensen, The Blue Ocean that disappeared - the case of Nintendo Wii

MOTION-SENSING TECHNOLOGY, NINTENTDO (Disruptive Innovation)

In the same year, 2006, Nintendo released the Wii[14]. The Wii shifted the market dynamics through its disruptive innovation in gaming. The price of the Wii was $250, which was much cheaper than both the PS3 and the Xbox 360. The **disruptive innovation** was the motion-sensing remote controller which created a new type of interactive gaming experience. This console was no longer just for kids or hardcore gamers, but also to families and casual gamers who were not usually targeted by Sony or Microsoft. The launch of the Wii not only created a new segment in the gaming market, creating a blue ocean[15], but also challenged the existing norms of gaming, focusing on fun and accessibility over high-end graphics and performance.

MOTION-SENSING TECHNOLOGY, MICROSOFT & SONY (sustainable innovation)

Both Microsoft and Sony did sustainable innovation by using motion-sensing technologies that were added on existing console capabilities. Microsoft's Kinect and Sony's PlayStation Move reached new demographics while retaining their current user base by extending their functionalities without disrupting their respective ecosystems.

Microsoft released the Kinect for Xbox 360 in 2010. Its price was $15. Unlike the Wii, Kinect didn't need handheld controllers and captured the entire body's movements, which was a big advantage over the Wii. Similar to Nintendo's strategy, Microsoft also tried to expand its demographic to families and casual gamers. This was done not just to compete but also to expand its existing market share.

Sony also responded by launching the PlayStation Move in September of 2010. The PSMove combined a handheld motion controller with a camera to track its position, providing a different type of motion gaming experience with more precision. Sony's approach was to integrate the PSMove into the existing PlayStation ecosystem, enhancing games that appealed to both casual and hardcore gamers. This strategy tried to blend the successful aspects of Nintendo's accessibility with the advanced gaming experience that PlayStation users were used to.

SONY's RESPONE & PSN (Operational Excellence and Online Expansion)

After PS3's launch in 2006, it received mixed responses mainly due to its high pricing. In response, Sony implemented a series of price cuts starting in 2007 to make the PS3 more competitive against the less expensive Xbox 360 and Wii. These price reductions were done to better the PS3's appeal and improve sales, which had been poor, compared to its competitors. Sony also focused on differentiating the PS3 through its multimedia capabilities, emphasizing the console's built-in Blu-ray player and its role as a home entertainment center, not just a gaming console.

Another important move by Sony during this era was the expansion of the PlayStation Network (PSN). Better online services and a growing library of digital games became crucial as Sony aimed to match the online experience that Xbox Live offered. The PSN started to offer downloadable games, movies, and other content, aiming to create a more integrated entertainment experience.

	2005		2006		2007		2008		2009		2010		2011		2012	
	Mill units	%	Mill units	%	Mill units	%	Mill units	%	Mill units	%	Mill units	%	Mill units	%	Mill units	%
Sony PS 3 (+earlier versions)	16.8	69	12.9	53	15.8	40	17.7	33	17.5	35	17.4	35	14.1	36	11.9	40
Microsoft Xbox 360 (+ earlier versions)	4.8	20	7.5	31	7.8	20	11.2	21	10.2	21	13.6	28	13.8	35	10.5	35
Nintendo Wii + 'U' (+earlier version – GameCube)	2.7	11	4.0	16	15.5	40	24.8	46	21.8	44	18.1	37	11.6	29	5.1 + 2.4 = 7.5	25
Total	24.3	100	24.4	100	39.1	100	53.7	100	49.5	100	49.2	100	39.5	100	30.0	100

Source: Author's own creation, based on www.vgchartz.com, n.d.

World-wide sales of games consoles (units) and market share (%) 2005-2012, Source: Source: Svend Hollensen, The Blue Ocean that disappeared - the case of Nintendo Wii

THE PLAYSTATION SLIMS (first-order fit and third-order fit)

Sony's iterative console releases (PS3 Slim and Super Slim) and network enhancements demonstrated a strong first-order fit by aligning improvements directly with consumer feedback on pricing and functionality.

Sony made several updates to the PlayStation 3 to keep it competitive as new gaming consoles were released and consumer expectations changed. In September 2009, Sony launched the PlayStation 3 Slim, which was lighter and more energy-efficient than the original PS3. This version was not only slimmer but also cheaper, addressing one of the main problems about the original PS3's high price. It also featured a new logo and a matte finish, which made it more visually appealing.

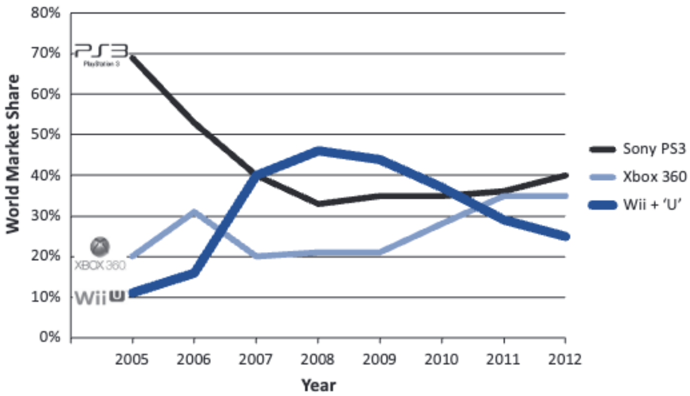
In late 2012, Sony released an even more compact and thinner version called the PlayStation 3 Super Slim[11]. This model was 20% smaller and 25% lighter than the Slim version and replaced the motorized disc-loading tray with a simpler sliding disc cover. This reduced production costs and allowed Sony to sell it at an even lower price. The Super Slim model came with different storage options and was packaged with popular games like "Uncharted 3: Drake's Deception" and "Assassin's Creed III," which made it very attractive for gift-shoppers during the holiday season.

Additionally, Sony entered the mobile gaming market with the PlayStation Vita in December 2011. The PS Vita delivered high-quality visuals[12] and was designed to work smoothly with the PS3, supporting game streaming between the handheld device and the console. This feature was meant to merge the experiences of mobile and console gaming, appealing to gamers who liked playing on the go.

The introduction of the PS Vita represented a third-order fit by integrating mobile gaming with console gaming, although the full potential of this integration (synergy across platforms) was not completely realized during this period.

PS3's CHALLENGES (Judo economics)

Initially, Sony's high pricing strategy for the PlayStation 3[13] was meant to show superior quality and advanced technology. However, this strategy initially backfired, as it limited broader market adoption. Sony avoided a direct price war initially but later made price cuts as a way to "grip the opponent" — in this case, to regain market share from Microsoft and Nintendo without participating in a destructive price war. Instead it expanded game library, and bettered its online service which was the PlayStation Network. By integrating multimedia capabilities and improving its value proposition, the PS3 saw improved sales figures over time. However, Sony could not surpass the market penetration achieved by the Xbox 360 and the Wii in the same generation, although it maintained strong loyalty among its user base, particularly among those who valued its high-performance hardware and exclusive game franchises.



Development of world market shares for SP3 (Move), Xbox 360 (Kinect) and Wii ("U"), Source: Source: Svend Hollensen, The Blue Ocean that disappeared - the case of Nintendo Wii

Nintendo released the Wii U in 2012, hoping to capitalise on the success of the Wii. The Wii U was sold at two price points: Basic ($300 in the USA) and Deluxe ($350 in the USA). The Wii U had a unique tablet-like controller with a built-in touchscreen, which offered new gameplay possibilities such as dual-screen gaming and off-TV play. However, the Wii U saw poor sales due to consumer confusion about its new features, a lack of good games at launch, and competition from both traditional consoles and the increasing popularity of mobile gaming. The Wii U had sold only 3.6 million instead of the predicted 5.5 million by the end of July of 2013.[15]

BEFORE THE RELEASE OF PS4

By the time the next generation of consoles had arrived in 2013, Microsoft's Xbox 360 had captured a huge share of the market, particularly in North America. It was recognized for its strong online gaming community and extensive multimedia capabilities, which made it a popular entertainment hub beyond just gaming. Nintendo, while still performing well due to the past popularity of the Wii and its strong line-up of first-party titles, was seeing smaller returns, especially as it faced challenges launching its next-generation console, the Wii U. Sony was preparing for a comeback with the PlayStation 4, learning from the shortcomings of the PS3 era and planning to address them with more competitive pricing, powerful hardware, and a strong focus on gamer-centric features. Nintendo emphasized on its unique Joy Con controller that can be detached and used independently or shared.

PLAY STATION 4

Sony Entertainment introduced the PlayStation 4 in November 2013. It was the next generation gaming console, developed to fix the flaws of the PS3. Even though the sales were not as much as PS3, the main aim to develop PS4 was on social gameplay, enhanced graphics capabilities and an improved user experience. Sony aimed to rectify its mistakes with the PS3 by making the PS4 more user friendly. [17]

The PlayStation 4 Console

The PS4 had a high processing CPU which was more compatible with high quality games. The PS4 was practically silent when playing for long hours for a high-quality game [17]. The main addition was that PS4 now came with DualShock 4 controller, a major development from the previous controller [16]. The console with a removable 500 GB hard disk helped to expand storage as required, which was missing in the previous generation. Also, now the PS4 came with media streaming services like Blu-ray, Netflix etc. It supported USB 3.0 which offered unique features which were not present in computers or tablets.

PS4's SUCCESS

Sony's strategy revolved around building brand loyalty and aggressive promotion. Sony used to under commit and over deliver to its customers. It understood that strong social media presence was important in today's world and actively used online platforms such as Facebook, Twitter, Instagram to promote PS4 and other gaming experiences. It provided content related to game highlights, special discounts and behind-the-scenes insights [19].

Influencer marketing done by Sony was another key marketing strategy they used where they collaborated with influential individuals or content creators to promote their product and build brand loyalty. Additionally, Sony employed Search Engine Optimization (SEO) to enhance visibility and drove traffic to its website. Sony wanted to reach a wide range of customers, so they focused on utilizing online platforms and partnership with retail stores giving them a seamless shopping experience [19].

THE BATTLE BETWEEN PS4 AND XBOX ONE

XBOX

Microsoft launched Xbox One in November 2013 which was the direct competitor to PS4 and had some new addition to its gaming console. Microsoft launched the ID@Xbox which lowered the barriers for independent video game makers to penetrate the market. This platform let registered creators distribute games digitally via Xbox Live while also providing free programming tools and full console capabilities, including the usage of Kinect [20].

LAUNCH & GAME TITLES

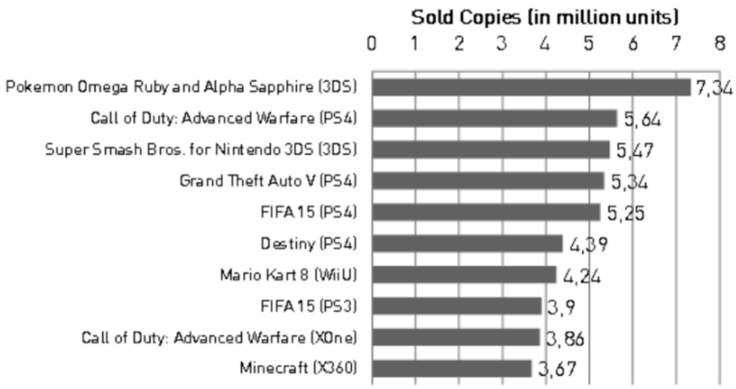
The Xbox One launched with eleven disk-based multiplatform titles and six exclusive titles. However, the console was not backward compatible with Xbox 360 games, which marked a significant break from prior console generations.

CUSTOMER AND CONNECTIVITY CONCERNS

Some customers viewed cloud connectivity unfavorably owing to possible broadband concerns. For example, if the console failed to authenticate via the internet, offline gaming was limited to 24 hours. There was also concern that Internet Service Providers may throttle internet speed, which could impact games quality due to increased latency [20].

PS4

Sony's launch plan for the PS4 was partially structured in response to the Xbox One's early DRM rules and always-online necessity, which were met with criticism. Sony emphasized the convenience of sharing games via physical discs, which contrasted with the Xbox One's more restricted Digital Rights Management (DRM) system. Sony even published a video ridiculing Xbox One's complex game-sharing process. The plan looked to be effective, as seen by sales data. In 2014, four of the top ten video games were on the PS4, with only one for the Xbox One. This shows that Sony's approach was highly received by the gaming community, which helped the system succeed in the market [20].



Four of the top ten games in 2014 were on the PS4 [20]

There were many reasons why the PS4 beat Xbox One in the gaming industry. First, the PS4 launched in major cities and territories, which means customers had more opportunities to buy the new gaming console while the hype was at its peak. The Xbox One's release was heavily criticized and was widely seen as a blunder for Microsoft. Consumers were particularly concerned about the console's emphasis on live TV features, the requirement of the always-on Kinect camera, the near-constant connection requirements, and stringent restrictions regarding the resale of used games. These factors contributed to a sense of diminished consumer freedom, prompting a preference for the PlayStation 4, which provided a more familiar gaming experience with improved graphics and less restrictions.

Lastly the PS4 was $100 cheaper than Xbox One on launch day. This factor swayed many customers towards Sony. Xbox was keen on selling Xbox One with Bundling with Kinect, the in-box camera that created the immediate difference. The PS4 also offered video camera but was a choice for consumers.

Phil Spencer was appointed as the Head of the Xbox domain in May 2014. He took serious steps to clean up the mess. He unbundled the Kinect camera resulting in lowering the price of the Xbox One console and introduced backward compatibility.

PRODUCT DIFFERENTIATION

The Play Station 4 effectively differentiated itself by focusing itself as a 'high-power' gaming console whereas Xbox One's had a broader, more integrated media approach. The PS4 gaming philosophy from the start was to focus on traditional consumers whose primary interest was in a console that could deliver high-quality gaming experience.

Sony leveraged their acquired gaming studios to differentiate from other players in the market. They offered exclusive games such as: "The Last of Us", "Marvel's Spider Man", "God of War" to consumers. These came out be very popular games that resulted in increased sales of the console by providing the consumers a unique gaming experience [21].

The continuity of the PlayStation brand, with incremental improvement helped gain customers trust and build brand loyalty in the product quality's and performance. Sony also gained advantage from exclusive short time deals like with the 'Final Fantasy VII Remake', which temporarily offered games only for PS4, enhancing its appeal [21].

In 2016, Sony launched the PS4 Pro and Slim that was 40% slimmer and lighter and was designed for better graphics, gaming experience and enjoyment. It could handle 4k media giving better resolution and gameplay [17].

Disruptive Innovation with the DualShock Controller

The DualShock 4 controller introduced with PS4 had several major innovations which set the standard of expectations in terms of connectivity, ease of use, and multimedia integration.

The DualShock 4's main advantage was that the center of the controller was replaced with a touchscreen that was used to perform various activities in-game. Also, another major development was to add a light bar at the front of the remote. This helped combine Sixth Axis motion sensors to make motion gaming more possible and fun. Lastly the bar also changes color according to the user choice. The console was not just a remote, it could connect to smartphones, tablets, and PlayStation Vita to talk to the PS4 console and control a wide variety of features [16].

Incorporating a speaker and a headphone port directly into the controller provided a more personalized audio experience during games. Players may hear sounds from the gamepad, giving a degree of immersion, or they could put in headphones to listen privately.

Gaming Controllers for PS3 and PS4 indicating product enhancement.

No other console was able to incorporate all these features in one offering. It had combined the ergonomic and higher quality elements that the Xbox One controller possessed and also integrated the mobility and versatility of the Nintendo Switch controllers. This helped Sony to set the industry standard of any future controller.

JUDO STRATEGY USED BY NINTENDO SWITCH

Nintendo launched a new gaming console which was smaller and portable called Nintendo Switch. To begin, the PS4 needs a location equipped with all necessary components, such as a display. The Switch provides a more varied gaming experience while being affordable. We can connect switch with our phones, tablets or TV, making it more flexible in terms of accessibility. Even though the price of PS4 and Nintendo Switch was the same, the gaming experience was very different. PS4 offers better display, resolution and performance. Nintendo targeted a broader demographic, including younger individuals, families and casual gamers, with games being more user friendly and less graphically intense. But they did not go for head on collision, each found a niche market within the broader gaming industry. This was the trade-off that Nintendo used by giving up gaming experience with portability [22].

CONSOLE WARS RESUME IN THE NINTH GENERATION

The ninth generation of gaming consoles was characterised by several key differentiating factors that set it apart from the previous ones especially advanced hardware and performance, a strong focus on digital and subscription services and enhanced backwards compatibility to name a few. This was focused on not just enhancing the gaming experience from the previous generation but to make gaming more accessible and integrating it into a digital lifestyle.

As we have seen so far, we can clearly conclude that Sony and Microsoft operated in a state of strategic interdependence, where the decisions of one significantly impacted the outcomes of the other. This relationship was evident in their pricing strategies, technological advancements, and timing of product releases. The previous generation was a significant win for Sony with the PS4 essentially selling nearly double the number of units compared to the Xbox One.

However, there were significant developments made by each company in specific sectors which the other company lacked and they chose to work on these weaknesses. Sony realized that the concept of backwards compatibility introduced by Xbox across all their consoles was a revolutionary concept in retaining customers. Coupled with the advantage of the large user base they gained through the previous generation of gaming, offering backwards compatibility to their entire library of PS4 games would reinforce their primary customer base. Sony outlined three pillars to use as its foundation for growth for the future, namely, console growth through sales, portfolio expansion centred around first-party gaming studios, and collaboration across Sony Group to turn its IP into TV shows and movies. Clearly redefining their strategy for the future after coming off a significantly successful previous generation of console gaming helped them focus on their strengths. It also equipped them with the necessary vision to build for the future.

Coming to Microsoft, the huge strategic missteps by the then head of Microsoft's Interactive entertainment business, Don Mattrick, needed to be fixed by Microsoft in the current generation. With a significant restructuring and assignment of Phil Spencer as CEO of Xbox gaming, a review at the long- and short-term strategies of the company needed to be done. Additionally, the huge advantage that Sony had accumulated through their greater IP library with brilliant console exclusives had to be countered[23][24].

THE GAME PASS & CLOUD GAMING (Judo Strategy)

Xbox knew that they could not require quickly in the short term by directly engaging with Sony or replicating their strategies. Sony was reaping the benefits of their investments into independent gaming studios nearly a decade ago. They had to take a step back and relook at the product that they were offering and change its perception in the eyes of the public. Without directly engaging with their competitor, they leveraged the teachings of **Judo strategy** and pivoted into a different area to get back into the game. Preparing and planning to pivot from a judo perspective means using situational and spatial awareness to think through where and when to alter offensive moves. This allowed Microsoft to take advantage of a new opportunity to attack. This is where they leveraged the game pass and the onset of cloud gaming. Xbox president Sarah Bond attributed the success of Microsoft's Game Pass service to thorough research inspired by platforms like Netflix and Spotify. By studying consumer demand and preferences for subscription-based content consumption, the team ensured Game Pass's appeal. Unlike traditional gaming consoles products, Xbox would now be viewed as a platform offering various products, accommodating different consumer behaviours rather than just a gaming console. Game Pass catered to both players who prefer immersive narratives and those who enjoy multiplayer experiences, fostering a diverse gaming ecosystem. Unlike Netflix, Game Pass doesn't limit the types of games that can thrive, promoting business model diversity and maximizing gaming options for users. This significantly helped Xbox get back a huge share of their user base back that they had lost out due to the strategic missteps of the past.

Additionally, interest in "Cloud Gaming" had grown by 1,900% over the last 5 years. In theory, buying a game online should be an amazing experience. Consumers can browse thousands of titles and purchase a game instantly without needing to leave your house. But in practice, buying a game online had its problems. First off, downloading the game could take hours. This meant that it was often faster to drive to the store and buy a physical copy of the game. Cloud Gaming bypassed all these the issues that caused troubles for the users. Instead of buying and downloading a game, users could stream it in real time. That way, users could use the latest and greatest hardware without needing to invest in it. Moreover, there was no need to download the software, one could start playing right away.

Microsoft leveraged Cloud Gaming as a key component of its gaming subscription service, Xbox Game Pass, gained a strategic advantage in what analysts anticipated as a pivotal complementary offering. This move allowed Microsoft to supplement its unprofitable console business while appealing to more entry-level players with better accessibility at a lower price. Phil Spencer, of Microsoft, acknowledged the competitive challenges in the console hardware space against Sony and Nintendo, prompting a strategic shift towards Xbox Game Pass and cloud gaming. Integrating Cloud Gaming features into Xbox Game Pass, Microsoft established an extensive library of games, including new releases available on launch day. The service provided various perks and bonuses, such as Discord Nitro subscriptions and integration with EA Play, enriching the gaming experience. With cross-platform compatibility, there was a seamless gaming experience across

Xbox consoles, PC, and mobile devices enabled through cloud streaming. All in all, the Xbox gaming pass offered cost-effective pricing options as compared to its competitors especially with the Ultimate tier providing access to a comprehensive library of games and online multiplayer at a reasonable monthly fee [25].

SONY's RESPONSE

In response to the changes implemented by Microsoft and having recognised the potential of Cloud Gaming, Sony in turn responded by overhauling its PlayStation Plus subscription in mid-2022. This included integrating PlayStation Now (Sony's cloud-based service for games from past PS generations) into a higher subscription tier of the PlayStation Plus subscription. Unlike Xbox Game Pass, Sony's PlayStation Plus prioritized delivering high-quality games, including acclaimed first-party titles such as Spider-Man: Miles Morales and God of War. With multiple subscription tiers catering to diverse needs and budgets, players gained access to libraries encompassing PS4, PS5, and legacy titles. Exclusive bonuses and discounts further enhanced the gaming experience for subscribers. However, PlayStation Plus faced limitations in cross-platform compatibility, primarily tailored to PlayStation consoles, with streaming options available for PCs but lacking direct downloads. Despite offering slightly higher pricing compared to Xbox Game Pass, particularly for premium tiers with additional features like streaming services for older games, PlayStation Plus aimed to provide a premium gaming experience tailored to Sony's ecosystem.

THE PLAYSTATION PORTAL

Sony realized how their subscription service was not as appealing to users as the Xbox Game Pass and chose to respond in a different way. They chose to leverage their experience in handheld gaming devices like the PSP and PS Vita to develop the PlayStation Portal. It allowed players to connect to their PS5 console over Wi-Fi, providing console-quality gaming controls without the need for a TV. This was achieved through cloud computing where the device would stream the game which was being run on the PS5. With this device, players could enjoy gaming anywhere enhancing flexibility and convenience. Thus, leveraging cloud computing through their PS plus Game Pass, PS now streaming services and new console accessory the PS Portal Sony gained valuable recurring revenue streams.

THE ACTIVISION BLIZZARD TAKEOVER

Microsoft knew that the Xbox game pass while being a step in the right direction was not enough to sustain a long-term advantage. Their main disadvantage was still the lack of Xbox exclusive games. While Sony had cultivated independent game studios that they had bought over, Xbox did not have the luxury of time to execute a similar process. However, Microsoft was a much more capital-rich company than Sony and they used this to their advantage. While they used the game pass to fix their short-term problems. Microsoft started looking to takeover large existing gaming studios and developers with existing titles to build their library of Xbox exclusives and become competitive again within the console wars. This acquisition marked a pivotal moment in the gaming industry with far reaching implication.

The merger essentially consolidated a large amount of power for Microsoft, which raised concerns about potential market dominance especially by Sony. Microsoft gained a substantial advantage in the competitive landscape of games with Activision Blizzard's extensive portfolio of cult franchises, including but not limited to "Call of Duty" and "World of Warcraft". This could potentially reshape the competitive landscape, prompting other industry giants to reassess their respective strategies to still stay relevant in the industry.

One major implication was the potential emergence of “content silos”, which we observe in the streaming industry. A content silo essentially meant that a specific IP was siloed or limited to only a specific platform and not shared between them. Since console exclusive games became a key differentiator between platforms, companies could possibly gatekeep their exclusive titles to their console limiting access for players. This could lead to market fragmentation and heightened competition for consumer attention. Additionally, the incorporation of Activision Blizzard's vast IP library into the Game Pass could enable Microsoft to enhance the value proposition for their subscribers. The deal underscored a broader trend of industry consolidation, with major player seeking to bolster their positions through strategic acquisitions. This marked a clear departure of Microsoft from the 23 year old console war between Sony and Microsoft towards prioritizing games and software over the consoles and hardware [26].

TOWARDS THE FUTURE

The strategic shift of Microsoft from hardware competition with Sony and Nintendo sparked speculation about the future of the console gaming industry. Microsoft planned to release Xbox exclusive games on rival platforms with a growing focus on cloud-based gaming. This showed Microsoft's new direction prioritizing software over hardware. This move could potentially lead to the Sony's resurgence as the dominant force in console gaming reminiscent of the industry's golden age characterized by fierce clashes between Nintendo and Sega, and later, Nintendo and Sony.

While this transition may signal a significant victory for Japan, it also raises questions about the sustainability of dedicated gaming hardware. Sony, in particular, faces challenges as it grapples with the commercial viability of future PlayStation consoles amidst pressure from investors and shifting market dynamics. Nintendo, on the other hand, must navigate the timing and execution of its successor to the Switch console, balancing the need for innovation with the risk of repeating past missteps. As Microsoft embraces a multi-platform approach and invests heavily in game studios, it underscores a fundamental shift in the competitive dynamics of the industry. While this new direction may offer opportunities for collaboration and broader access to gaming titles, it also poses challenges in maintaining customer loyalty and engagement across diverse platforms. Ultimately, the future of console gaming hinges on how these industry giants adapt to evolving consumer preferences and technological advancements [27].

EXHIBITS

Exhibit 1: VRIO for Nintendo in the 90's

VALUE

- Introduced innovative gaming systems like Famicom.
- Focused on delivering games loved by the masses.

RARITY

- Exclusive and tightly controlled gaming environment.
- Preserved uniqueness for Nintendo-approved games.

IMITABILITY

- Difficult to replicate the business model.
- Subcontracted while controlling key components.

ORGANIZATION

- The effective organizational structure that organized resources.
- Maintained control over gaming licence and distribution.

Exhibit 2: Gaming Console' Estimated Losses Per Unit Sold

Year	Company	Console	Loss Per Unit
2001	Microsoft	Xbox	$100
2005	Microsoft	Xbox 360	$130
2006	Sony	PS3	$250

Source: John Sterman, "Sony's Battle for Video Game Supremacy," *MIT Sloan*, December 8, 2011

Exhibit 3: Sony' Strategic Acquisitions in the Gaming Industry till 2005

Year	Company	Business
2000	RTime	Broadband Networks
2000	Bend Studio	Video Game
2001	Naughty Dog	Video Game
2002	Incognito Entertainment	Video Game
2005	SN Systems	Game Development
2005	Guerilla Games	Video Game

Source: "List of acquisitions by Sony," Wikipedia,
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