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SONY PLAYSTATION 4: AIM AND FIRE

Kazuo Hirai, president and group CEO of Sony Computer Entertainment Inc. (Sony), makers of the Sony PlayStation (PS), stepped off the Tokyo street into the crowded public arcade. He watched children, with their parents' help, plug in handheld adapters and begin swooping their arms to move characters on large displays—and he berated himself again about why he had not invested more resources in developing this type of technology before Nintendo had debuted the Wii. Sony had dominated the previous two generations of gaming systems with the PS and PS2, but was late to the game in incorporating comprehensive motion technology into its user experience. PS Move was introduced well after the Wii—with its family-oriented sporting and arcade-style action games—had already grabbed market share Hirai thought should belong to Sony. And Microsoft's Xbox Kinect had snatched up a portion of "his" customer base with its groundbreaking, full-body motion-sensor camera that allowed users to animate their own gaming characters using their bodies—sometimes in lieu of any controller at all.

Hirai began feeling anxious. What was Sony doing to innovate? Not only did he have to worry about Nintendo and Microsoft, but he also had the constant feeling that a newcomer could arise in the gaming sector at almost any time. Sony had *itself* sprung onto the scene as a newcomer in the mid-1990s and had been the clear winner in both the fourth and fifth generations of gaming systems. So why couldn't another player with a winning strategy and some new application of technology pull out ahead next? The first generation had been led by Atari; Nintendo had dominated the second generation; Sega and Nintendo battled for supremacy during the third generation, only to be upstaged by Sony in the next two generations. The latest generation, the sixth, had seen Nintendo retake first place—the Xbox and the PS3 trailed behind.

There were more changes on the horizon, too. Given the rise of online gaming and mobile computing, it wasn't even clear that the future of gaming platforms was a game console in the living room—or that the "game box" next to the TV would come to represent something completely different. Hirai was determined not to let Sony drift out of the gaming industry, yet he wasn't clear about which direction he ought to push his engineers. This question hung in the

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This case was prepared by Rebecca Goldberg (MBA '03), case writer, Michael Lenox, Samuel L. Slover Research Professor of Business Administration, and Jared D. Harris, Assistant Professor of Business Administration. It was written as a basis for class discussion rather than to illustrate effective or ineffective handling of an administrative situation. While Kazuo Hirai is a real person, this case is derived exclusively from publicly available sources and his thoughts, actions, and words herein are fictionalized.

air unresolved as he walked out of the bright and noisy arcade and back into the busy Tokyo street.

Structure of the Gaming Industry

The gaming industry had always been fraught with competitive battles and short technology life cycles, with new generations appearing roughly every five to seven years. For game console makers, each generation entailed a large capital investment in console development and production. Early production costs often outstripped the price per unit, making early losses inevitable. Only after a significant number of consoles had been sold would a console maker drive down production costs and begin to earn a profit on each machine. High fixed development costs were another factor. Several years often had to elapse after a launch before a new generation of consoles turned a profit. A second important industry dynamic was a normal, sequential reduction in price—a higher initial price point attracted hard-core gamers who couldn't wait for the next advancements in technology, then the price point was lowered over time to attract other market segments such as new or casual gamers. In fact, while the selling price might drop over time, the company's profit margins might actually increase as it captured economies of scale.[1]

Another factor of importance in interpreting the lifetime success of a given console was the *attach rate*—the number of software titles, or games, owned by the average console owner. The video gaming console system could be thought of as just that: a system. Both hardware and software were needed to play a game. For each software title sold for a given console platform, the console maker received a royalty payment of upwards of 20% of the price of the game. Software titles retailed for an average of $50 and varied depending on the popularity of the game. Some games, such as *Super Mario Brothers* or *Sonic*, were developed internally by the console maker. Typically, these titles would only be available on that console maker's systems. Other software titles were developed by external software houses and were exclusive to a particular hardware platform for a period of time, but might later also be developed for another platform—albeit possibly with different release dates, content, and/or functionality. Some games were developed for multiple platforms at the same time. The effect of "superstar" games such as *Super Mario Brothers* or *Grand Theft Auto* could not only launch entire software franchises but also help to boost sales of the hardware associated with that game:

> The introduction of a superstar increases video game console sales by an average of 14% (167,000 units) over a period of five months…Hardware firms should maintain a steady flow of superstar introductions because the positive effect of a superstar lasts only five months and, if need be, make side payments to software

[1] Hongju Liu, "Dynamics of Pricing in the Video Game Console Market: Skimming or Penetration?," *Journal of Marketing Research* 47, no. 3 (June 2010): 429.

> firms because superstars dramatically increase hardware sales. Hardware firms' exclusivity over superstars does not provide an extra boost to their own sales, but it takes away an opportunity for competing systems to increase their sales.[2]

Over the years, the quest for the next blockbuster game had become more and more expensive for software developers. In 2005, the cost ranged from $3 million to $6 million,[3] and by 2010, a next-generation, multiplatform game could require up to $28 million to bring to market.[4] Many development efforts rivaled or exceeded the cost of making a blockbuster movie. The popular game *Grand Theft Auto 4* by Rockstar Games required three years and over $100 million to develop.[5] With games as with movies, the distribution of sales figures across all games in a category was highly skewed. The big hits could bring in billions of dollars. *Grand Theft Auto 4* grossed more than $500 million *in its first week* and went on to sell over 22 million copies.[6] But most games were not so successful, and it was not uncommon for development studios to post high losses. Game development studios frequently employed full-time developers, unlike movie studios, which tended to hire temporary workers as needed to help stay profitable.[7]

With such large investments at stake, the choice of which platform or platforms to develop a game for was critical. Research showed that, in the decision by software developers to align with one platform or another, the attractiveness of a given platform was highly correlated with four variables:

- Developers were more likely to release titles for the dominant platform in a market.
- Developers were more likely to release a title for a newer platform.
- Developers were less likely to launch products on a platform in which other developers and titles had strong presences.

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[2] Jeroen L.G. Binken and Stefan Stremersch, "The Effect of Superstar Software on Hardware Sales in System Markets," *Journal of Marketing* 73, no. 2 (March 2009): 88.

[3] "Cost of Making Games Set To Soar," *BBC News*, November 17, 2005, http://news.bbc.co.uk/2/hi/technology/4442346.stm (accessed October 5, 2011).

[4] Rob Crossley, "Study: Average Dev Costs as High as $28M," *Develop*, January 11, 2010, http://www.develop-online.net/news/33625/Study-Average-dev-cost-as-high-as-28m (accessed October 11, 2011).

[5] Mark Briggs, "Top 10 Most Expensive Video Game Budgets Ever," *Digital Battle*, February 20, 2010, http://www.digitalbattle.com/2010/02/20/top-10-most-expensive-video-games-budgets-ever/ (accessed October 5, 2011).

[6] Kyle Orland, "Grand Theft Auto IV Passes 22M Shipped, Franchise Above 114M," *Gamasutra*, September 14, 2011, http://www.gamasutra.com/view/news/37228/Grand_Theft_Auto_IV_Passes_22M_Shipped_Franchise_Above_114M.php (accessed October 5, 2011).

[7] N. Evan Van Zelfden, "What's Killing the Video Game Business?," *Slate*, February 16, 2009, http://www.slate.com/articles/technology/gaming/2009/02/whats_killing_the_videogame_business.html (accessed October 5, 2011).

- Developers were less likely to release titles for a platform that was already tightly connected to only a few developers.[8]

History of the Gaming Industry

The first commercially successful game console player in the United States was the Atari Video Computer System (VCS), later known as the Atari 2600. Released in 1977, the Atari consisted of a box and a controller and used a TV as the display device. It featured cartridge-based games such as *Pac-Man*, *Frogger*, and *Pole Position*, and cost $199. The Atari VCS inspired a rash of entrants into the game console market, including the Magnavox Odyssey, Intellivision, and Colecovision. By 1983, Atari was the clear market leader.

A year later, however, the U.S. market collapsed.[9] Dismissed as a fad, the market became saturated and that year's total industry sales plummeted to under $100 million. Meanwhile, two Japanese companies, Sega and Nintendo, were developing a new generation of machines using 8-bit processors. Sega was historically a pinball machine and jukebox manufacturer. Nintendo had entered the coin-operated video game market with its debut of the wildly popular *Donkey Kong* in 1981, in which the character Mario first appeared. In 1983, Nintendo and Sega introduced their first home gaming consoles, the Famicom and the SG-100, respectively, in the Japanese market at an introductory price of $199.[10] The Famicom was a huge success, based largely on the popularity of its *Super Mario Brothers* game, a *Donkey Kong* spin-off, so Nintendo released the Famicom in the United States in 1986 under the name Nintendo Entertainment System (NES).[11] The NES quickly became a U.S. cult phenomenon with exclusive or internally developed blockbuster titles such as *Super Mario Brothers, The Legend of Zelda*, and *Metroid*. By 1988, Nintendo was the dominant force in the growing gaming industry.

Meanwhile, the competition was eagerly working on new third-generation systems. These machines were heralded by NEC's 1987 release of the first 16-bit system, the TurboGrafx-16, and were defined by new standards in graphics. Video graphics now operated at increased resolution, which made new imaging possibilities available to game software developers. This new technology invigorated the stalled, over-inventoried 8-bit gaming industry and opened the way for Nintendo and Sega to each introduce a 16-bit system of their own: the Superfamicom and the Mega Drive, respectively. Sega's Mega Drive was the first to market, debuting in 1988

[8] N. Venkatraman and Chi-Hyon Lee, "Preferential Linkage and Network Evolution: A Conceptual Model and Empirical Test in the U.S. Video Game Sector," *Academy of Management Journal* 47, no. 6 (Dec. 2004): 876–892.

[9] "Atari 2600," ClassicGaming.com Museum, http://classicgaming.gamespy.com/View.php?view=ConsoleMuseum.Detail&id=8&game=4

[10] Travis Fahs, "IGN Presents the History of Sega," http://uk.retro.ign.com/articles/974/974695p3.html (accessed October 5, 2011).

[11] Ray Barnholdt, "Purple Reign: 15 Years of the Super NES," August 4, 2006, http://www.1up.com/features/15-years-snes?pager.offset=0 (accessed October 5, 2011).

in Japan and in 1989 in the United States and Europe under the name Genesis. (The Super Nintendo Entertainment System [SNES] was not released in the United States until 1991.) Sega's console was a steep competitor for the SNES—due in part to *Sonic the Hedgehog*, a game intended to compete with the family-oriented *Super Mario Brothers*, and *Mortal Kombat I* and *II*, which sparked a congressional hearing on the censorship of violence in games marketed to children.[12] Peripherals came into focus as an area of competition in this generation as well; CD (optical media port) and memory add-ons that boosted performance but required separate game purchases were introduced, as well as a varied selection of controllers.[13] By 1993, Sega and Nintendo were still fighting for market dominance, with Sega controlling roughly 60% of the U.S. market. Nintendo didn't edge out ahead of Sega until 1995[14]—by some standards, after the generation was effectively over. The entire time, the gaming market continued to expand.

This time period also saw the emergence of a related gaming industry trend—handheld game players. The first commercially successful handheld gaming device, Nintendo's Game Boy ($99), was introduced in 1989 and may have been a supporting factor in Nintendo's resilience during the third-generation scramble.[15] Some observers attributed the long 35-hour battery life and the included game *Tetris* to the Game Boy's success.[16] Other handhelds followed, but none had achieved the following and success of the Game Boy and Game Boy Advance, which together sold close to 200 million units worldwide. That number had not been approached since by any other producer, although successors Nintendo DS and DS Lite came closest, with a combined 120 million units sold after their 2006 release.[17]

By 1994, attention shifted to fourth-generation machines based on 32-bit processors. Sega was the first to market with the Sega Saturn. For the first time, a CD-ROM drive was used instead of the cartridge-based systems of the previous two decades.[18] In a surprise move, consumer electronics giant Sony entered the market with the PlayStation a year later, also using CD-ROM technology. Nintendo, scrambling, decided to jump a generation, releasing the Nintendo 64, a 64-bit machine using cartridges, in 1996. By 1999, despite the technological advantages of the Nintendo system, Sony took control, with a 43% market share compared with Nintendo (28.4%) and Sega (28.6%). See **Figure 1** for market share data from 1995 to 2000. In contrast to Nintendo and Sega, which had emphasized internally developed software titles, Sony

[12] "Sonic the Hedgehog GameTap Retrospective Pt.3/4," YouTube video, 5:42, produced and uploaded by "GameTap," February 2009, http://www.youtube.com/watch?v=7mFs2v7XM4o (accessed October 5, 2011).

[13] Barnholdt, 2.

[14] Barnholdt, 3.

[15] "Nintendo Game Boy," VidGame.net, http://web.archive.org/web/20080211181421/http://www.vidgame.net/NINTENDO/GB.html (accessed October 5, 2011).

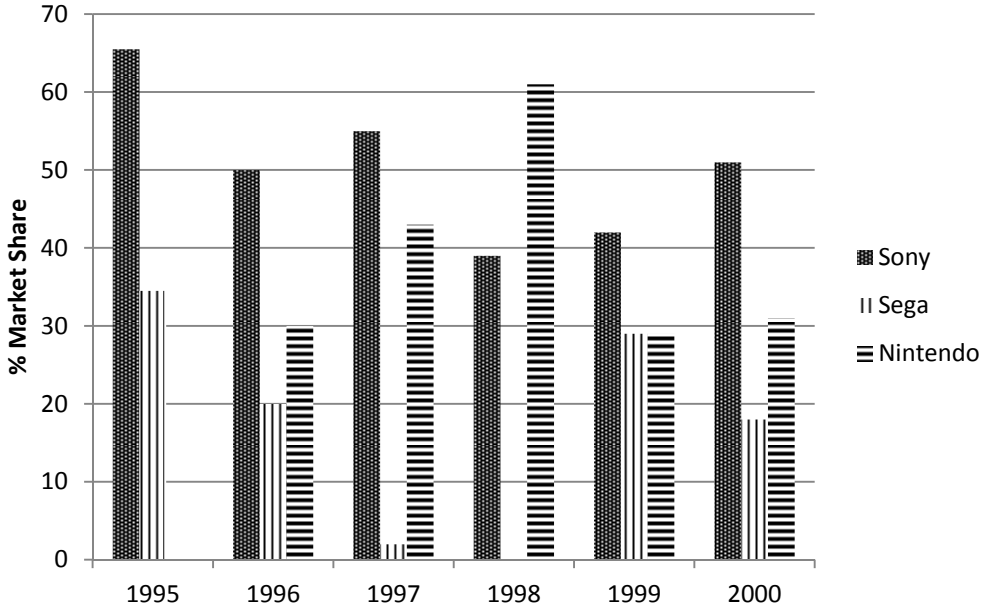
[16] Damien McFerran, "Game Boy," *Retro Gamer Magazine*, 42–47.

[17] Nintendo historical sales figures from "Consolidated Sales Transition by Region," Nintendo Co., Ltd., http://www.webcitation.org/5nXieXX2B (accessed October 11, 2011).

[18] Barnholdt, 3.

aimed to attract third-party game developers, offering to take reduced royalties and placing fewer restrictions on content and quality.

Figure 1. Market share by major console manufacturer (32-bit consoles), 1995–2000.[19]



In attempts to challenge Sony's supremacy, Nintendo launched the GameCube and Sega the Dreamcast. The new fifth generation was transformed and defined yet again by new graphics capability—this time a leap to 128 bits. Sega entered the U.S. market first in 1999 with the Dreamcast. Sony followed in 2000 with the Sony PlayStation 2 (PS2). Nintendo's GameCube debuted a year later for the holiday season of 2001. In another surprise to the industry, software giant Microsoft entered the fray with the Xbox. It was originally intended to be available for the 2001 holiday season, but production delays led to a January 2002 launch. The Sony PS2 and the Xbox were offered at $299, while the Dreamcast and GameCube went for a more modest $199. See **Figure 2** for approximate unit sales for the three major console manufacturers for all consoles (all generations) from 2000 to 2006 and **Figure 3** for total home video game sales from 1977 to 2000. Major games were Sega's *Sonic Adventure*, Sony's *Grand Theft Auto: San Andreas*, Nintendo's *Super Smash Bros. Melee,* and Microsoft's *Halo.*

[19] Graphic created by case writer using data from Dmitri Williams, "Structure and Competition in the U.S. Home Video Game Industry," *International Journal on Media Management* 4, no. 1 (2002): 44.

Figure 2. Game console unit sales (including handhelds), 2000–06.[20]

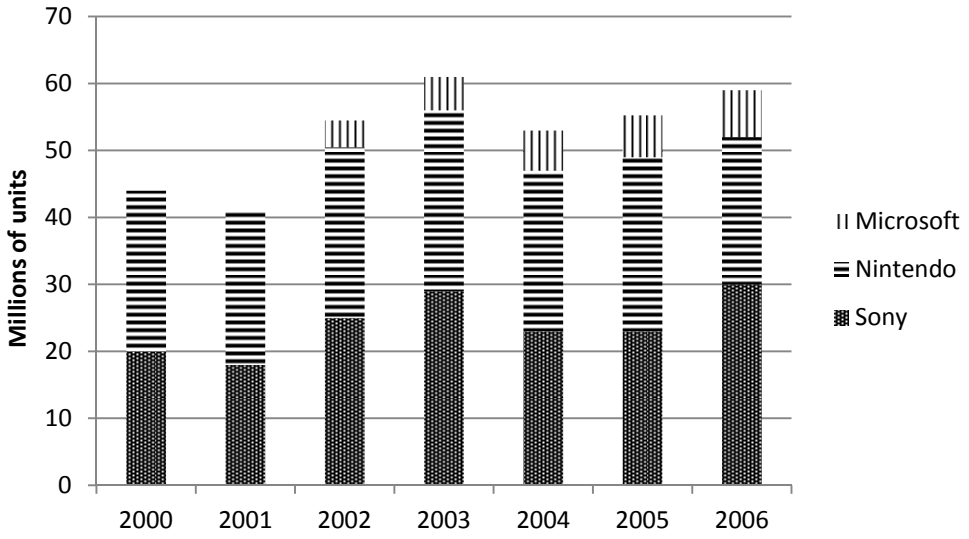
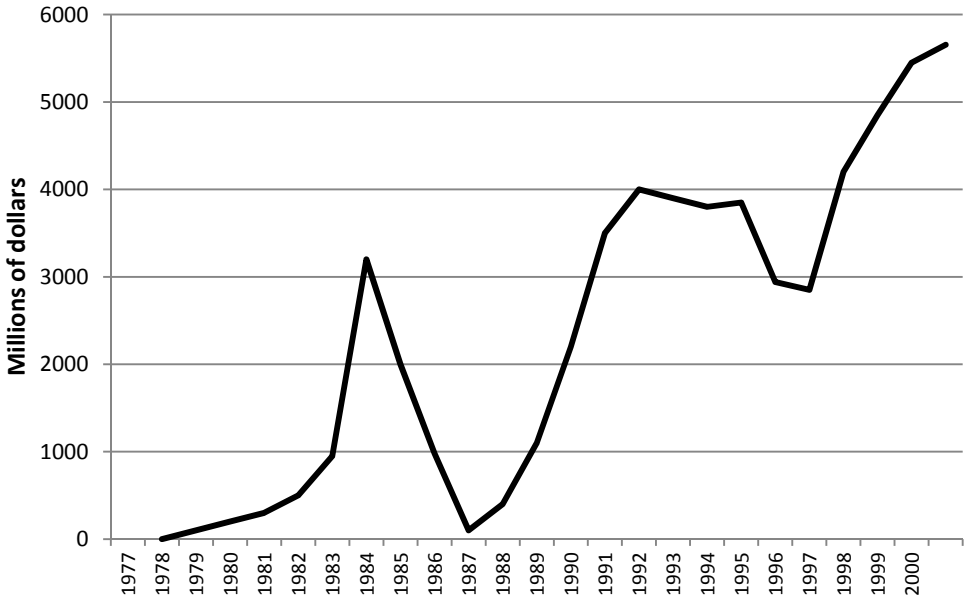


Figure 3: U.S. home video game sales, 1977–2000.[21]



[20] Graphic created by case writer using data from "Seventh Generation Gaming Consoles: Thinking Outside the Box," *Seeking Alpha*, December 11, 2006, http://seekingalpha.com/article/22075-seventh-generation-gaming-consoles-thinking-outside-the-box (accessed October 5, 2011).

[21] Graphic created by case writer using data from Dmitri Williams, "Structure and Competition in the U.S. Home Video Game Industry."

By 2003, the market share of all homes with fifth-generation machines was 60% for Sony's PS2, 21% for Microsoft's Xbox, and 17% for Nintendo's GameCube. Sega, which failed to capture customers' imagination with the Dreamcast, exited the game console market altogether, instead focusing on developing software titles. For the first time, a new game player was backward-compatible—able to play last-generation console games—allowing owners of Sony PlayStation to upgrade to PS2 but still play all their old games.

Generation six

Microsoft: Xbox 360

The sixth generation was, interestingly, not defined by a jump in bit-category—the norm remained 128 bits, which continued to offer game and console developers an optimal price/performance tradeoff given emerging high-definition (HD) technology. Determined not to be late to the game, Microsoft was the first mover with the launch of the Xbox 360 in 2005, which sold for $299 (base unit only). Among the top exclusive Xbox 360 games were those targeted to hard-core gamers and adults, with titles like *Halo 3, Gears of War,* and *Mass Effect.* These were well received and considered to be solid game offerings. They tended to skew toward more mature audiences (21 years and older), a growing segment of the game player market. One coup for Microsoft was the Xbox version of *Grand Theft Auto*, which had until then been exclusive to Sony's PlayStation.

The Xbox 360 was the first console to natively render in high definition (HD)—a technology that produced clearer graphics and more lifelike motion than had consoles from previous generations. Consumers had the option to purchase the machine with an HD-DVD drive for $399. HD-DVD was a new standard developed by a consortium led by Toshiba for high-definition movies. At the time of the Xbox 360's launch, HD-DVD was in a battle for supremacy against Sony's Blu-ray standard. Movie executives were wary of a repeat of the VHS–Betamax standards battle in videocassette tapes in the 1980s that forced them to produce media in two formats (until the VHS standard won). Shane Kim, general manager of Microsoft Game Studios, said in mid-2006, "I understand why Blu-ray is good for Sony. I'm not sure yet why Blu-ray is good for gamers and for customers…We're completely behind HD-DVD. We're going to do everything we can as a company to establish HD-DVD as the standard."[22]

Sony: PS3

The PS3 was Sony's answer to the Xbox 360. Released a year later in late 2006, it was significantly more expensive out of the box at $499 for a 20GB hard drive and $599 for 60GB, but that included a Blu-ray disc player, a built-in broadband Internet connection, and a lifetime membership in the PlayStation Network (PSN) online gaming community. Microsoft charged

[22] Michael Donahoe and Shane Bettenhausen, "War of the Words," *Electronic Gaming Monthly*, July 2006, 30.

extra for a high-speed network connection hardware upgrade and a monthly fee for online gaming access through its Xbox Live platform. The PS3 was clearly the more powerful system. Its cell microprocessor was the most advanced on the market—more so even than those available in PCs. Available games were considered a mixed bag, with *Grand Theft Auto* no longer an exclusive offering, but instead containing exclusive content and functionality specific to the PS3. The third-party software lineup included such popular offerings as *Sonic the Hedgehog* and *Call of Duty 3* as well as *Tiger Woods PGA Tour 07* and *Madden NFL 07*.[23]

Sony modified the existing PS controller to incorporate motion sensing. A rumble function was developed but didn't make it into the PS3 controller; however, a motion-sensing function and pressure-sensitive buttons were included—albeit without a cadre of popular sporting games and other software that fully leveraged these capabilities. Hirai said when asked about the lack of PS3 games taking full advantage of the new functions: "We wanted to keep [the motion sensor in our controller] under wraps as long as possible. We limited it to one internal studio…to incorporate [the new functions] into *Warhawk*."[24]

Industry analysts and correspondents did predict some pushback for Sony based on the price. Per-unit manufacturing costs alone were between $800 and $850 when the PS3 was released in 2006—so even at the $599 fully loaded price tag, Sony was losing money on each console sale.[25] Merrill Lynch technology analysts pegged the cost tail like this: "In particular we think the problem points are the Sony Cell processor and the Blu-ray drive. Our updated analysis indicates that the initial bill of materials for PS3 could approach $800, falling to $320 three years from launch."[26] Hirai said of the PS3, its price point, and functionality:

> In absolute dollar terms, is it higher than [the PS2's] $300? Yes, it is. But I also think that we have a history of making sure that our consoles have a 10-year life cycle….The console is designed to play videogames, watch Blu-ray movies, and also download content from the Internet.
>
> …Blu-ray, given the fact that if you have two layers you can go with 50 gigabytes, is just leaps and bounds beyond what DVD or HD-DVD brings to the table. I think HD-DVD happens to be just a marginal improvement over conventional DVDs.
>
> …I have bigger fish to fry [than worrying about Microsoft's one-year head start on the release of the Xbox]. We've never launched a system first, and we've

[23] James Clement, "Sony Lets Rip with New PS3 Games." VNUNet United Kingdom, October 23, 2006.
[24] Donahoe and Bettenhausen, 20.
[25] Anton Shilov, "PlayStation 3 Costs $800 to Manufacture After All," *XBit Laboratories*, November 17, 2006.
[26] "PlayStation 3 Slippage Looking More Likely: Implications," Merrill Lynch Analysts, February 17, 2006. Technology section.

> always managed to overtake those consoles…it is what it is. It's not too much of a concern for me.[27]

Sony's advertising budget for the PS3 launch was $150 million, and the marketing campaign faced several hurdles:

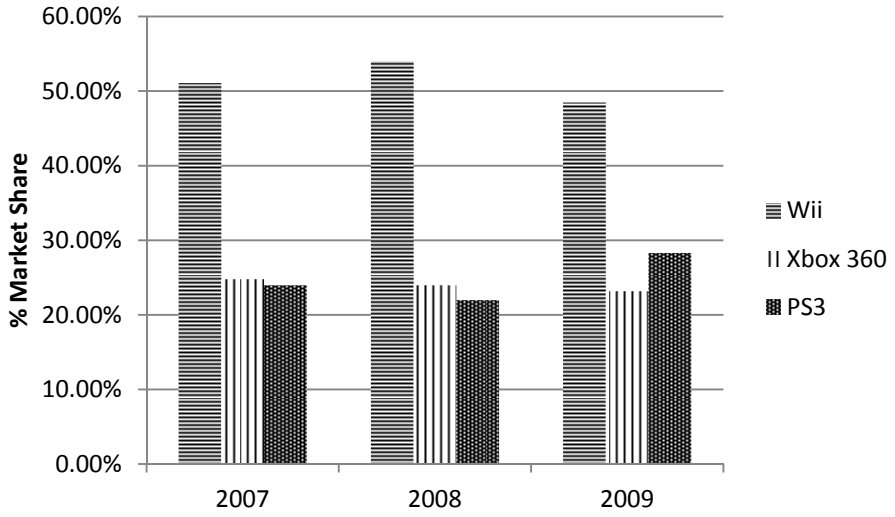
> …The high price could be a boon to Sony's chief gaming competitors, Microsoft and Nintendo. Microsoft points out that for the price of the PS3, you could almost buy the most expensive Microsoft Xbox 360 ($399) plus the Nintendo Wii ($249), which hits the stores two days after Sony's new console.
>
> That presents a huge challenge for TBWA [Sony's advertising agency for the PS3] going into the Christmas season. The goal isn't to sell the PS3 on the first day of the launch—PlayStation fans will probably grab every one of the 400,000 units off the shelves. The agency's job is to persuade those who leave the store empty-handed to wait—to not buy Xbox or Wii—even if it means holding off until after Christmas before Sony can ramp up its manufacturing enough to satisfy the demand.[28]

Nintendo: Wii

Within two weeks of the PS3 release, Nintendo's new Wii arrived in stores at $250—soon to drop closer to $200—and with it came the game-changing technology boost of game-integrated motion. (See **Figure 4** for market share data for 2006 to 2009.) Ironically, the decision to not compete in the "arms race" of processing power and realistic, immersive games that Microsoft and Sony were involved in proved to be an unlikely path to success for Nintendo, which instead placed its bet on something altogether different: a system of simpler games that relied on actual physical movements—not just the pressing of buttons—to play. Wii controllers used pioneering motion-sensing controllers whose movements could be interpreted by the Wii console and integrated into on-screen play. Nintendo chose to prioritize the lower price point and innovative controlling devices (which included up to four paired, or "leashed" devices, including primary controllers, nunchucks, and/or a balance board with four weight sensors) over higher-end graphics capability.

[27] Donahoe and Bettenhausen, 20-22.
[28] Leonard Devin, "The Big Game," *Fortune*, November 13, 2006, 57–62.

Figure 4. Estimated video console market share, 2007–09.[29]



Nintendo's game lineup still included *Super Mario Brothers* and *Metroid*, and third-party software development support soon followed. Some analysts observed that the Wii, because it relied on older graphics capability, presented fewer hurdles to potential developers and made this platform attractive and potentially more lucrative than the higher-end games demanded by PS and Xbox players.[30] Some gamers and analysts speculated that in making this tradeoff, Nintendo was building on its position in the family-friendly market. Reggie Fils-Aime, Nintendo's executive vice president of sales and marketing, said of Nintendo's design process that the firm considered the consumer's needs first when making decisions about resource allocation in the development process. He also defined Nintendo's target consumer. He said:

> "Will this remote feel good in my hand?" "What types of games can I play?" and "What can I envision Nintendo doing with this?" That's step one….Step two is beginning to appeal to the more rational side, in terms of what's the pricing and what's the launch date. Step three will be truly exciting the customer by detailing the specific launch titles.
>
> We will have games and experiences for the core gamer [even without HD or Blu-ray graphics] that look great, play great, and have tremendous fun factor…The Wii will also bring the mass market. It'll bring in both younger and older consumers. That's our strategy. We want both parts of the customer base.[31]

[29] Graphic created by case writer using data from *Market Share Reporter* 2010, 571; and Greyian Storm, "Home Console Market Share (2010)," *Gameolosophy*, June 1, 2010.

[30] Donahoe and Bettenhausen, 25.

[31] Donahoe and Bettenhausen, 25.

Nintendo, which had more recently occupied the third-place position in the market—albeit a profitable third place[32]—instigated nothing short of a revolution in the gaming industry. Soon after its release, the Wii became a cult phenomenon. The innovative controller and simple family-friendly games expanded the market to young and old alike. Grandparents and their grandchildren could be found sharing in the gaming experience. By 2010, Nintendo had taken a commanding lead in the sixth-generation race, capturing close to 50% of all unit sales and relegating the PS3 and Xbox 360 to a battle over second place. By June 2011, over 87 million Wiis had been purchased worldwide.

PS3 Struggles

The PS3 led off with great numbers in late 2006 and early 2007, but the feedback online and in the press was almost always mixed, if not overtly negative. Sales began to lag. *Electronic Gaming Monthly* featured a cover story that tried to uncover the reasons why:

> Everyone from hardcore gamers to the mainstream press was dogging on the newest console in the PS family. What happened?
>
> …Grumbling about the PS3's high price, lack of controller rumble, and spotty launch lineup [games] became commonplace on Internet message boards…Plus, the decision to make PS3 a Trojan horse for Sony's high-def Blu-ray disc technology could be backfiring—unless you convince consumers that this extra feature is something they truly want, they'll only view it as an added expense. And although the PlayStation Network offers an online solution far beyond what we saw on the PS2, the premium functionality of Xbox Live Gold still outclasses Sony's offering. Finally, an exodus of exclusives [gaming titles that could only be played on one console] could be the most dangerous problem currently facing the PS3.[33]

In January 2008, one industry analyst estimated that the PS3 per-unit cost could have dropped to around $400: "Costs per machine [have been cut] to around $400 now, from above $800 just before it went on sale in November, 2006."[34]

Forbes said of the PS3 and the problems industry pundits had observed with its launch:

> High development costs and missed deadlines have always plagued the PlayStation business as Sony's engineers tinker endlessly with each model. The

[32] James Suroweicki, "In Praise of Third Place," *New Yorker*, December 4, 2006, 44.
[33] Dan "Shoe" Hsu and Shane Bettenhausen, "BattleStation!" *Electronic Gaming Monthly*, March 2007, 60–72.
[34] Kenji Hall, "Sony's Blu-Ray Breakthrough," *Bloomberg BusinessWeek*, January 8, 2008.

> powerful PlayStation 3, which uses an IBM-Toshiba-Sony chip that can do 256 billion calculations a second, costs $400 and was late coming to market. Outside videogame outfits have still designed only a limited number of games for it. But one PlayStation-only game released in June [2008], *Metal Gear Solid 4*, has been driving sales of the machine. Sony expects to sell 10 million in this fiscal year, while holding prices steady, enough to put that business into the black. Morgan Stanley says Sony might easily sell 14.5 million.[35]

Sony's response to this early, shaky performance was twofold. First, it further reduced the retail price of the PS3, moving down from $400 to $299—possibly still losing money on each console.[36] Second, Sony had a much stronger market position internationally than it did in the United States, especially in Japan, where the Xbox had sold less than 250,000 units by 2008,[37] so, building on the strength in this market, Sony released *Final Fantasy XIII*—in Japan first, then in the U.S. and European markets. "Make no mistake, this should help lift sales of the PlayStation," said Yusuke Tsunoda, an analyst at Tokai Tokyo Securities Co. "The Wii has peaked out, but PlayStation is still on the upswing."[38] *BusinessWeek* reported of Sony's strategy to boost sales in Japan by releasing the next version of a popular game title:

> Sony may prolong the rise in PlayStation 3 sales and chip away at Nintendo's lead in the console market should the title's popularity in the U.S. and Europe mirror Japan's when the game goes on sale in the world's two biggest markets in March. Yoichi Wada, president of franchise creator Square Enix Holdings Co. forecast it will sell at least 2 million *Final Fantasy XIII* copies in Japan.
>
> …Yuka Izawa, a 22-year-old college student from Tokyo, lined up from 3:00 a.m. to get her copy of the new game. "The story is so deep and so immersing that it makes you feel like you are growing together with the characters," she said. "It's an experience everyone should have. I cried playing *Final Fantasy X*."[39]

Meanwhile, Sony appeared to have won the Blu-ray–HD-DVD format war. In 2008, Warner Bros. announced it would switch over to the Blu-ray camp, leaving only Paramount and Universal still supporting HD-DVD—and rumor had it that Universal was planning to support both, while Paramount was seen as vacillating.[40]

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[35] Robyn Meredith, "It Takes a Crisis," *Forbes*, August 11, 2008, 96–102.

[36] Pavel Alpeyev and Jason Clenfield, "Final Fantasy Fans Bolster Sony PlayStation Sales," *BusinessWeek*, December 22, 2009, 14.

[37] Peter Dillie, "Revenge of the PlayStation 3," *Electronic Gaming Monthly*, March 2008, 50.

[38] Alpeyev and Clenfield, 14.

[39] Alpeyev and Clenfield, 14.

[40] Dillie, 55.

Sony and Microsoft Respond

In response to Nintendo's ascent, Sony and Microsoft engaged in a number of strategic actions to try to gain market dominance.

Fall 2010

Sony introduced the PS Move:

> The PlayStation Move motion controller is used in combination with the PlayStation Eye camera to detect the precise movement, angle, and absolute position in 3D space of the user, thereby allowing users to intuitively play as if they are within the game.[41]

November 4, 2010[42]

In time for holiday gift-giving, Microsoft "returned Nintendo's serve" by rallying with a second release of the Xbox in late 2010—this time featuring Kinect, a full-body motion-sensing camera that could detect and translate user movement without a handheld controller. *Forbes* wrote of Microsoft's move:

> Kinect is a major update to the Xbox 360 game console. Like the Nintendo Wii or PlayStation Move systems, Kinect lets you interact with games and menus via gestures instead of buttons. The difference with Kinect is that there is no controller. You select and play games using your hands, fingers, elbows and voice. An infrared laser, camera and microphone array tucked into a black oblong sensor can track up to six people.
>
> In June Microsoft said annual revenue from Live had topped $1 billion, most of which now comes from media, surpassing subscriber fees for the first time. Although games still occupy 60% of activity on Live network, the most common "first use" of the Xbox has shifted from playing a game to going to Netflix or another entertainment service. Peter Warman of research firm Newzoo found that in the U.S. last year two-thirds of Xbox 360 owners used Live to stream or download video content. Warman calls Xbox Live with Kinect "the improved Wii."
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> Nintendo had better watch its back.[43]

[41] "PlayStation 3 Sales Reach 50 Million Units Worldwide," *CD Computing News* 25, no. 5 (May 2011).
[42] Jason Chen, "Microsoft Xbox 360 Kinect Launches November 4," *GizModo.com*, http://gizmodo.com/5563148/microsoft-xbox-360-kinect-launches-november-4 (accessed March 2012).

January 2011

Sony partnered with the *Guinness Book of World Records* to verify the longest-running video game ever. Sony produced a three-day live webcast of the event that was almost Olympic-like in its sporting-event-style coverage. It included expert, real-time commentary and multiple frames of three top gamers battling out the pre-release version of *LittleBigPlanet II*. Viewers were able to pose questions, live, to the gamers—and game developers were also webcast as they produced additional plot twists for the gamers to solve on the fly. According to *Streaming Media*, the event had the following effects:

> Obviously, Sony did something right. *LittleBigPlanet 2* debuted atop the worldwide sales charts leading sales in North America, the UK and Europe in both multiplatform and PlayStation categories. The streams [webcasts] themselves delivered almost 2.9 million total sessions and almost 5 terabytes of data transferred over the 52 hours [of the event].[44]

March 2011

CD Computing News reported the following progress:

> The number of PlayStation Move supported/dedicated software titles has reached 155 as of March 24, 2011, including titles such as *Sports Champions*, *SingStar Dance* and *Killzone 3*.
>
> On March 29, 2011, Sony announced that it had (finally) achieved a milestone sales volume of 50 million PS3 units worldwide—and that furthermore, it had sold 8 million [PS Move consoles] by April. In addition, the PlayStation network service had reached a critical mass of more than 75 million registered online accounts in 59 countries and regions around the world.[45]

May/June 2011

Sony Ericsson released the Xperia PLAY, a smartphone that was PS-game compatible. The phones retailed at $49 with a contract. *Tech Trader* evaluated the PLAY positively as compared to the Nintendo 3DS: "[The PLAY] is a must-buy for any gamer."[46] Analyst Michael Pachter of Web Securities said of the smartphone gaming market:

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[43] Oliver Chiang, "The Xbox Moves In," *Forbes*, December 20, 2010, 34.

[44] Kevin Shively, Case Study. "Sony Sets Video Game World Records During Marathon Webcast," Streaming Media, August/September 2011, 12–16.

[45] "Playstation 3 Sales Reach 50 Million Units Worldwide."

[46] "Head to Head," *Tech Trader* 3, no. 4 (May 2011): 20–21

> I think that the market for handheld dedicated game devices is shrinking in relation to the growth of the smartphone market. While the games are completely different, a substantial minority of handheld gamers [30% estimated] play casual games like *Tetris* on their devices, and smartphone *Tetris* for $1 is an acceptable substitute for $20 *Tetris* on the DS.[47]

Mid-August 2011

Sony cut the PS3 by another $50 globally to boost sales, and might finally have begun to make a profit on each console sale. By the August 18, the PS3 had become (finally) the best-selling gaming console on Amazon.com.[48]

Late August 2011

Sony announced the release dates of several new games that were available via download from the PlayStation Network (PSN). Chris Sturr, executive director of business development and corporate strategy at Sony Online Entertainment said:

> We are seeing increased growth and popularity in the digital distribution of premium console games and therefore are delivering new AAA-quality titles like *Rochard, PAYDAY: The Heist,* and *Sideway: New York* that address this trend head on.
>
> …As one of the largest third-party publishers on PlayStationNetwork with 9.7 million downloads to date, we continue to raise the bar for players with the introduction of three new original games that further complement our existing portfolio including *Plants vs. Zombies, DC Universe Online, Slam Bolt Scrappers, Free Realms, Akimi Village,* and *Acceleration of Suguri X Edition*.[49]

The Seventh Generation

Hirai knew a bit about what the seventh generation would look like, although it had not yet arrived. The Wii U had been announced as Nintendo's planned offering for 2012. Of course, he mused, no one knew for sure what the U would consist of, but he had heard that the set of controllers would include one with an embedded touch screen that could also be used as a mobile handheld gaming unit, just like a DS. And what about Microsoft? Would it release a next-

[47] Tate Steinlage, "Exclusive Michael Pachter Interview," *Beta GameZone*, August 31, 2011, http://www.gamezone.com/editorials/exclusive_michael_pachter_interview (accessed October 5, 2011).

[48] Shane McGlaun, "Sony's $50 Price Cut on the Ps3 Is Paying Off," *SlashGear.com*, August 18, 2011.

[49] "Sony Online Entertainment Announces Launch Dates for Highly Anticipated PlayStation Network Titles Payday: The Heist, Rochard and Sideway: New York," PR Newswire, August 18, 2011.

generation Xbox or would it focus on online delivery of games through its Xbox Live platform? What would become of the gaming console box, with its Internet connectivity and ability to download, store, and play back content? It was already possible for users to access their Netflix or Hulu subscriptions via the PS3. What would this next generation of gaming consoles actually be *about*?

Trends in computing and consumer electronics worried Hirai. Some of the most popular games were being played on entirely new platforms: Rovio's *Angry Birds* for iPhone and Android smartphones and Zynga's *FarmVille* on Facebook. The North American tablet market ($16.5 billion in 2011, compared with $6.1 billion in 2010) was going gangbusters—and both tablets and smartphones would make Apple and other manufacturers Sony's direct competitors in the gaming world for the first time. Hirai was keenly aware of his company's foray into the tablet market with the Sony S1 and S2, which ran on Google's tablet version of the Android OS and were developed in conjunction with Hirai and his group.[50] Since Apple's iPad and other tablets supported gaming and even social, online gaming, Apple would represent direct competition in the game console market for the first time.

In addition, the financial stakes for hardware manufacturers were increasingly high and were linked more closely to consumers' changing preferences regarding content, game capabilities, and connection to other media and entertainment sources. The releases of large studio movies, such as 2010's *Tron: Legacy* and 2011's *Cars 2*, were timed to coincide with the release of their associated video games on multiple platforms. With the amount of revenue up for grabs from best-selling games, having a platform that developers could design for became a vitally important piece of the interconnected consumer entertainment world.

There also seemed to be more technological developments on the horizon. Hirai had gotten wind of a $25 computer the size of a thumbnail called the Raspberry Pi, which could output games in HD and was set to hit the market late in 2011.[51] What was this world coming to—and what should he do next? He needed to make some decisions about what to prioritize with the PS4, and he needed to do it now.

[50] Joseph Palenchar, "Sony Tablets Face Crowded Market," *TWICE* 26, no. 10 (May 2, 2011): 4–8.
[51] Matthew Lynley, "This $25 Computer (Yes, Computer!) Also Runs Quake 3," *GamesBeat*, August 29, 2011.