

PLAYSTATION 3

Damage Control: How Sony Can Regain the Lead

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Console gaming is currently entering a new generation with the introduction of the Sony PlayStation 3 (PS3), Microsoft Xbox 360, and Nintendo Wii. Sony, with its PlayStation 2, was the market leader in the previous generation with an estimated share of 70%, while Microsoft and Nintendo split the rest of the market^{1,2,3}. However, Sony is in danger of losing market share with the PS3, mainly due to the PS3's significantly higher cost.

The reason cost is so crucial is because it is one of the two most important attributes of a game console; the other attribute is game selection. Nintendo has differentiated its game selection enough that it is not in direct competition with Sony and Microsoft. On the other hand, the PS3 and Xbox 360 offer a similar collection of games. With the exception being for consumers who display franchise loyalty (such as die-hard Halo fans), there existed comparable substitutes between PlayStation 2 and Xbox games, and there have been no signs that things will be any different for the PS3 and Xbox 360. While the PS3 and Xbox 360 are comparable in relation to game selection, the basic model PS3 is 66% more expensive than the basic model Xbox 360 (\$499.99 vs. \$299.99)⁴. The price difference can be traced to the inclusion of a Blu-ray drive in every PS3. Sony has given Microsoft a major advantage in hopes that the PS3 will help it win a format war.

Due to the PS3's significant cost disadvantage, Sony's main strategic focus should be convincing consumers that the PS3 is worth the higher price tag. We will focus on strategies they can employ to do so.

A main point of competition in the video game industry is product differentiation. This differentiation occurs in two categories: price and customers. How a console is positioned in these areas is determined by its hardware and software; therefore, we will begin our analysis by highlighting the differences between the three systems.

Nintendo Wii

Both the central processing unit (CPU) and graphics processing unit (GPU) of the Wii are less specialized and lower performance than the PS3 or Xbox 360. Nintendo opted out of including a DVD player in the Wii in order to lower costs and uses a Secure Digital (SD) flash card slot for transferring some types of data, but it does not rely on an external hard drive or other peripherals to function fully. These factors help to give the Wii the lowest price of the new consoles, \$249.99⁴.

The standard Wii controller is the Wiimote, which is noticeably different from the controllers for the competition, both in form and function; it looks like a simple remote control, and it makes use of motion-sensor technology to create a radically different style of play from other video game consoles. While the PS3 controller also has motion sensors, the design of the Wii controller gives more focus to the motion sensing capabilities, as do a few of the early Wii games such as WiiSports.

Nintendo equipped the Wii with 802.11b/g wireless as well as universal serial bus (USB) ports for USB-to-Ethernet connections for online capability⁵. Nintendo also offers free online service called the Nintendo Wi-Fi Connection. Beyond online gaming, the Wii has several varieties of chat, message boards, sending photos, e-mail, online shopping, and firmware updates⁵; these capabilities are shared by both the PS2 and Xbox 360 online services. Nintendo promotes its multiplayer focus with easy creation of local area networks (LANs) – multiple Wiis will automatically create their own LAN through wireless when put close together⁵.

Perhaps mimicking the PlayStation 2's backwards compatibility, the Wii can play GameCube games without additional equipment. The Wii can also play games from much older systems which can be downloaded for a price on the Wii Shopping Channel. These will include licensed games from the Nintendo Entertainment System (NES), Super Nintendo Entertainment System (SNES), Nintendo 64, Sega Genesis, and TurboGrafx-16⁵.

The Nintendo DS, Nintendo's newest portable game console, can connect to the Wii and serve multiple functions as an interface. For example, it will act as a controller in the games Pokémon Diamond and Pearl⁶.

Microsoft Xbox 360

The Xbox 360 uses a CPU and GPU which have much higher clock speeds (3.2 GHz and 500 MHz respectively)⁷ than those installed in the Wii, but are comparable to the PS3. The Xbox 360 comes ready to play DVDs and supports high definition (HD) televisions. These extra capabilities give the Xbox 360 a higher base price than the Nintendo Wii, \$299.99⁴. Optional add-ons are a memory card essential for saving games for \$39.99, an external twenty gigabyte hard disk drive (HDD) for \$99.99, an external high-definition DVD drive with the HD DVD standard for \$199.99, and a package that includes wireless controllers and other extras for \$399.99⁴.

The Xbox 360 comes with an Ethernet port and can use wireless with a separate network adapter. Every Xbox 360 owner receives Xbox Live Silver, the basic online service, which has several components: Xbox Live Arcade, Marketplace, and Video. The Xbox Live Arcade has many old arcade games, from Galaga to Street Fighter, which can be downloaded for a price⁸. The Xbox Live Marketplace not only allows the download of game-specific extras, demos, and trailers, but movie trailers as well. Xbox Live introduced downloadable TV episodes and movies (for sale and for rent)⁸. In order to download media, the Xbox 360 must have an external HDD. Finally, there is a premium service, Xbox Live Gold, which is required to play most Xbox 360 games online. It costs \$59.99 per year and appeals to competitive gamers by having rankings and gaming history⁸.

Sony PlayStation 3

The PS3 uses the Cell microprocessor as its CPU. The Cell has been under development by Sony, IBM, and Toshiba since 2001, costing the consortium an estimated \$400 million⁹. Sony executives have claimed superior computing performance over the Wii and Xbox 360¹⁰. The GPU, the NVIDIA RSX “Reality Synthesizer,” operates at 550 MHz and has 256 MB of memory¹¹. Combined with the GPU, the PS3 is theoretically capable of performance up to 2 teraflops¹². As of yet no game developers have taken full advantage of the PS3’s processing capabilities.

The PS3 supports online connectivity through any existing broadband connection. It can connect through Ethernet or a USB wireless adapter. Currently, Sony does not charge users to play games online¹⁹. The PS3 is also backwards compatible with PS2 and PSX games²⁰.

In addition to playing DVDs, the PS3 has a built-in high-definition DVD drive that uses the Blu-ray standard. Sony’s Blu-ray format is competing against Toshiba’s HD DVD. The PS3’s controller is known as the SIXAXIS. While the SIXAXIS offers motion-sensing capability like the Nintendo Wiimote, it shares a nearly identical shape with the PS2 controller.

We will go into further detail about the PS3 in our following discussion.

Analysis

It is clear from a comparison of the consoles’ capabilities – specifically, computing and graphics performance and extra media functionality – that the Wii is outclassed by the PS3 and

Xbox 360. This is not necessarily a disadvantage for Nintendo, since they are able to price their product at a lower cost through lower performance chips and exclusion of a DVD drive. Furthermore, the game genres Nintendo focuses on are not as graphics intensive. Nintendo continues to follow its tradition of family-friendly games, such as the Mario series, which avoid the typical graphic violence of the other consoles' popular games; such graphically violent games attempt to look as realistic as possible, and thus are better suited to the more powerful GPUs of the PS3 and Xbox 360. Therefore, the Wii is in a different price position than the other consoles and targets a different market segment, and so the Wii is not in direct competition with the PS3 and Xbox 360.

Both the Xbox 360 and the PS3 attempt to be home media centers with their expanded capabilities, particularly high-definition DVDs. Moreover, the game genres available on the PS2 and Xbox were very similar, and there are no signs that things are about to change for the PS3 and Xbox 360. Hence, Sony's main competitor is Microsoft.

Strategies: Price Reduction

As previously mentioned, the main disadvantage the PS3 faces in comparison to the Xbox 360 is its price. The premium package price for the PS3 is \$599.99 and the basic package is \$499.99⁴. This price compares poorly with the Xbox 360's \$299.99⁴. One way to soften the price of the PS3 is to offer a rebate deal for turning in old PS2s. Since the PS3 is backwards-compatible, the PS2 becomes obsolete as soon as one purchases a PS3. A rebate is essentially a reward for Sony's past customers, so it would help maintain their previous market share. One issue to consider though is what to do with all the turned-in PS2s. They could cannibalize the parts or use them in some sort of publicity stunt. However, Sony probably cannot avoid losing more consumers, so they may just have to take this revenue loss in exchange for increased PS3 market penetration. They can also consider the gains in reputation with their past customers from such a deal since their relationship with consumers has been hurt by the viral marketing of the PSP¹³ and their music copyrighting¹⁴. If one considers the \$99.99 hard drive and \$199.99 HD DVD drive that are required for playing HD DVD movies on the Xbox 360^{4,8}, the prices of the two consoles become more comparable. Consumers, however, do not tend to think of these comparisons. Furthermore, if Sony wants to target gamers, it must consider those gamers who do not care about Blu-ray and will be put off by the high price. While the PS3 is probably being

sold below cost¹⁵, consumers generally do not consider inflation adjustments and will already be comparing the price unfavorably with previous generations of gaming consoles. One option for Sony is to create a version of the PS3 without Blu-ray which would enable them to lower the price of the console. The reasoning behind this is that they need to gain a larger market share so they can profit in the games market. Currently, Sony is behind the other two consoles in units sold¹⁶. While removing Blu-ray from the PS3 will definitely incur a one-time cost for figuring out the new design, the resulting sales will probably be worth the sacrifice.

Strategies: Blu-ray Content

Blu-ray is simply not a major selling point for the PS3 currently as there are not many games or other media that take full advantage of the format. Blu-ray stores more information than traditional DVDs and has more storage capacity than HD DVD (50 GB vs. 30 GB on a dual-layer disc). Unfortunately, Blu-ray does not offer much for games. The extra storage capacity is not needed since Xbox 360 games come on traditional DVDs. The PS3 Blu-ray drive also has a slower read speed than a standard DVD drive, causing longer game load times¹⁸. Furthermore, there are less than 300 movies currently out in the Blu-ray format¹⁷. If Sony wants the PS3 to succeed with Blu-ray, it must capitalize on Blu-ray content.

As the resolution of games increases, the full increased storage capacity of Blu-ray will inevitably be utilized by developers. For example, the highest-resolution games of today and some role-playing games have reached the upper limit of the storage capacity of traditional DVDs. Games coded onto Blu-ray discs can resolve this issue, just as with television shows. In addition, this advantage cannot be easily imitated by either Nintendo or Microsoft. Nintendo has no plans to incorporate a high-definition DVD drive with its Wii console, as it is not compatible with its current strategy of competing on cost and developing innovative, but not necessarily graphically intensive games. Microsoft, in releasing a high-definition DVD player attachment, is in a difficult situation. While Microsoft would like to compete with Sony on graphics quality, it risks public backlash for forcing consumers to buy its attachment, currently priced at \$199.99⁴, to continue playing games for its console. Releasing two versions of games – one for consoles without the attachment and another for those with the attachment – would cause confusion for consumers. Although this would not be an ideal strategy, Microsoft might be forced into doing so for the sake of keeping up with Sony in graphics innovation. In this case, it would be best for

Sony to push game developers to push the boundaries of graphics realism and in doing so utilize the full storage capacity of Blu-ray.

The demand for high-definition DVD players is currently very low. This stems from a lack of movies and low market penetration of high-definition televisions. Right now, the main benefit of Blu-ray discs is their increased storage capacity. With the extra storage capacity of Blu-ray, it is feasible to fit entire seasons of television shows onto one or two discs while at the same time retaining higher picture quality. Furthermore, Sony is releasing a standalone Blu-Ray player that will cost the same price as the premium PS3 console, \$599.99²¹. If Sony pushes this player aggressively, it may increase the value of Blu-ray, but it would more likely compete with PS3 sales.

Strategies: Sony Product Synergies

However, there are other Sony products which can better synergize with the PS3. The PS3 is actually less expensive than many Blu-ray players. Making use of the higher resolution available on a Blu-ray disc requires a high end TV. Sony could bundle the PS3 with some of their high definition TVs. A high definition TV cannot be fully utilized without equipment to take advantage of its features, and if consumers buy such a bundle they would be more likely to purchase PS3 games since they already have a PS3.

Sony can potentially draw on their success in other markets to help sell the PS3. Currently, their digital cameras and camcorders are selling well^{22,23}. The USB ports on the PS3 allow for the same connectivity and interfacing with cameras and camcorders that normal computers enjoy. However, Sony has not advertised any kind of these synergies with the console. As sites like MySpace and YouTube are immensely popular, being able to easily upload and edit videos and pictures to websites can be an immensely attractive draw. Since the PS3 does not really offer any advantages over a personal computer when it comes to uploading, Sony must produce some sort of incentive. One possible incentive would be quality video and picture editing software which would take full advantage of the PS3's processing power. This kind of software would add another incentive to buying the PS3 for those who already own some Sony products. A rumor which has turned out to be very credible²⁴ indicates that Sony is planning to launch a program called the PlayStation Home. The basic concept of the PlayStation Home is a sort of social networking online service²⁴. Notably, each user will have avatars

representing themselves, which encourages digital photos and editing. Furthermore, there will most likely be uploadable content so users can post videos²⁴. A service like PlayStation Home which emphasizes personalization can benefit from synergies with digital cameras and camcorders.

Strategies: Online Services

A key component to Sony's strategy must be online services. The online features for Xbox 360 include TV shows and movies for download⁸. This is a feature Sony should be able to improve on since Sony is already in the TV and movie industries. One strategy Sony could consider is a partnership with Netflix or Blockbuster for movie downloads. Sony could make use of these companies' reputation and infrastructure, at the same time staying out of an industry that may face a price war. For Netflix or Blockbuster, downloading onto a PS3 allows the consumer to easily watch the movie on a TV rather than a computer screen. Of course if Sony partners with one company Microsoft can partner with the other, but such an outcome would still improve the online features of both consoles.

Microsoft started the online console gaming trend with Xbox Live, while the PS2 was not designed to be an online machine. Sony is trying to fix that with the PS3, working to create a better interface for playing online games and offering the service for free¹⁹ (massively multiplayer online games may choose to charge subscribers, Xbox Live costs \$59.99 per year)⁸. Microsoft could choose to make its online play free, but for the time being the PS3's free multiplayer is an advantage that Sony should push. Sony should encourage developers to put more effort into the online portions of their games, which is in the developer's interest anyway since better online play gives their games more value. Console game genres such as sports, racing, and fighting games that lacked online play previously could now benefit greatly from the option to face human opponents. The ideal situation for Sony would be if the online portion of console gaming were as important to consumers as the single-player portion. If Sony can convince consumers that a great deal of a game's value comes from online play, it would greatly decrease the cost advantage of the Xbox 360 due to the subscription fee for Xbox Live. More marketing of the PS3's free online play is one way Sony could try to convince consumers that the PS3's higher cost is worth it.

Strategies: Games

By far the most important complement to gaming consoles are the games themselves. Consoles are usually sold at a loss when they are first introduced; profits are made on taking a cut of game sales. Every previous round of console gaming has been won by the quality of a console's game library, libraries that are small for all three consoles at this early point.

A quick review of the all time best selling games for each of the previous generation consoles reveals that there is one specific game type that sells the most: the popular and *exclusive* franchise game²⁵. One can go so far as to say that the defining characteristic of a gaming console are its exclusive franchises. Nintendo has its Mario, Pokemon, and Zelda series²⁵. Sony has Grand Theft Auto, Gran Turismo, Metal Gear Solid, and Final Fantasy²⁵. Microsoft has Halo²⁵. These highly popular and exclusive games are the main draw of the different consoles. More generic games such as sports series and movie spin-offs are available for all consoles, and because they are so similar across consoles they give a relative advantage to no one.

The exclusive games also build a customer base, so it is a good idea to aim for a collection of these games that are similar in order to increase the attractiveness of your console to a specific market segment. All three companies are well aware of this, with Nintendo's hits geared toward a younger audience, Sony's and Microsoft's targeting a more mature audience. Sony has done very well with their past exclusive games. Sony has more of these hit franchises than Microsoft, and Sony is not in direct competition with Nintendo because of their different target audiences. However, Sony must not become complacent, and already Microsoft has gained ground. The next Grand Theft Auto (GTA) installment will be released simultaneously on both the PS3 and Xbox 360. The last three GTA games were three of the top four best selling PS2 games, and each new installment outsold the last²⁵. With the Xbox 360 costing \$200 less than a PS3⁴, this may push a significant number of GTA fans to buy an Xbox 360 instead of a PS3.

The GTA issue highlights a concern that all three game console companies must deal with in relation to exclusive games. Some of these exclusive games are developed and/or published by outside companies. These outside companies may not always choose to work exclusively for one game console, and attempting to sign them to an exclusive contract may result in a bidding war. For a game series as important to Sony as GTA is, perhaps Sony should

have attempted to buy the developer of GTA. The desired solution to this problem is to have a hand in developing or publishing your most popular exclusive games. As evidenced by GTA, this is a problem for Sony, and if you look at the exclusive Sony games mentioned above, Sony is directly involved with only Gran Turismo; all the other franchises are developed and published by outside companies. On the other hand Microsoft is the publisher for Halo and also for Gears of War, a new game that has been the best seller so far on the Xbox 360²⁵. Sony needs to look after its remaining exclusive game franchises and try to develop and publish more hit games within Sony.

The motion sensor technology used in the Nintendo Wii has thus far been a massive success. It has revolutionized console gaming and drawn in segments of the population that normally would have little interest video games, including females and the elderly. Sony has the SIXAXIS technology already built-in to its current controllers and uses wireless Bluetooth to allow for full range of motion. The controller, while having precise motion detectors, lacks the ergonomics of the Wii controller, which is much more conducive to motion gaming. However, given the shown ability of incorporating motion into a game in turning a mediocre and mundane game into something unique, Sony should create incentives for game developers to write more games with creative usage of motion sensing. This would create value for the PS3, which is overpriced as it stands. So far, the only game that has significantly benefited from Sony's SIXAXIS technology is Blazing Angels, in which fighter planes can be controlled by tilting the controller²⁶. Various other games, mostly sporting titles, have some implementation of the motion sensing, but these are not vital to gameplay nor do they add any discernable value to the gaming experience according to early user reviews. This would be a good facet to exploit to differentiate the product from the Xbox 360, as it lacks any motion sensing capability whatsoever. It is already too late for Microsoft to incorporate a similar technology without alienating its customer base.

Future Directions

The current direction of Microsoft and Sony is to make their video game consoles home entertainment centers. While this may help them tap into other markets, they should keep their focus on games. They should not go as far as to make their gaming machines function as personal computers; this is not in their interests. Such a move would risk the destruction of the

console gaming industry by folding it into the computer gaming industry – if you turn all the gaming consoles into computers, all the console game developers would become computer game developers. In the computer game industry there are no exclusive games, and you can play a computer game on nearly any brand of computer, provided it has Windows.

The great advantage of a console company is that any game purchased for that console can only be played on that console, a benefit computer companies do not enjoy. If gaming consoles become too much like personal computers, it would make no sense for a game developer to choose only one brand of computer when it can easily release a game to all computers. Gaming consoles should continue to develop technologically to incorporate better graphics and other functionalities, but adding massive hard drives, Windows, and other accessories associated with personal computers would drive up the price of gaming consoles and make them indistinguishable from personal computers. In the process the entire console game industry would be lost, and some of the associated profits would not be so concentrated among three console companies.

Most of the suggested strategies for Sony are unfortunately easily imitated by their competitors. For example, Microsoft can reduce or phase out the price of Xbox Live Gold to compete with Sony's free online multiplayer. Even Sony's Blu-ray strategies can be similarly applied to the HD DVD format by Microsoft unless Blu-ray wins the HD format war.

As the PS3 currently has the fewest units sold¹⁶, Sony will have a tough time getting back to its previous position. Nevertheless, if Sony applies the strategies outlined above before Microsoft has a chance to react, they may be able to accomplish this goal. They already have a large consumer base from the success of the PlayStation 2; by lowering the price in the ways mentioned above, Sony can potentially leverage brand loyalty into sales. While our focus was for Sony to gain more console market penetration, ultimately, Sony needs to develop or license popular games to be successful.

Endnotes

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