

Global Video Game Industry



Introduction to the Video Game Industry

- Porter's 5 + 1 forces
- Industry Value Chain (Modified Porter's Value Chain)

Threat of Potential Entrants: Low

- High Capital requirements
- High barriers to entry (Patents & Rights)
- High difficulty of access to distribution channel (exclusive partnerships)
- High cost of developing brand equity
- High compatibility requirement

Bargaining Power of Suppliers: Low

- Products with high added value: Varies
- Established products on the market Every supplier wants to produce for big brands

Threat of Substitute: High

- Smartphones and tablets (with HDMI)
- Computers
- Minigames/portable consoles

Bargaining Power of Buyers: Low

- Recency: defer purchase for incoming product
- Frequency: once every major release
- Monetary value of product: high
- Buyer information: high

Complement Goods: Low

- Television and sound systems
- Accessories (VR headsets, generic controllers)

Degree of Existing Rivalry: High

- Major players:
Microsoft, Nintendo, & Sony
- Competitive strategy: dedicated games to the console

Stakeholders of the Global Video Game Industry

<p>Firm</p> <ul style="list-style-type: none">- Sony- Microsoft- Nintendo- Atari	<p>Customers</p> <ul style="list-style-type: none">- Rating categories (lifecycle): Early childhood, Everyone, Everyone 10+, Teens, Mature, & Adults- Genre & theme: fantasy, strategic, sports, etc	<p>Employees</p> <ul style="list-style-type: none">- Game developers (Game engineers, graphic artists, concept artists)- Marketing & Sales- Console engineers
<p>Stockholders</p> <ul style="list-style-type: none">- Public: anyone can hold its shares- Complement merchandises	<p>Lenders</p> <ul style="list-style-type: none">- Public companies: banks and pledgers- Private developers: Venture capital and banks	<p>Rivals</p> <ul style="list-style-type: none">- Console developers- Substitute products (minigames, computers, etc)
<p>Suppliers</p> <ul style="list-style-type: none">- Electronic components- Game developers	<p>Government</p> <ul style="list-style-type: none">- Restrictions on themes	<p>Local Community</p> <ul style="list-style-type: none">- Otakus and conventions

Support activities

Technology

- Internal and External R&D
- Graphics & Sound Cards, CPU, Hard disk, etc

Infrastructure

- Network: Internet broadband services, and cloud-based services
- Local and Regional Servicing centres

Primary activities

Game developers

- Developer Tools publishers
- Middleware publisher
- Video Game Development

Platform Provider

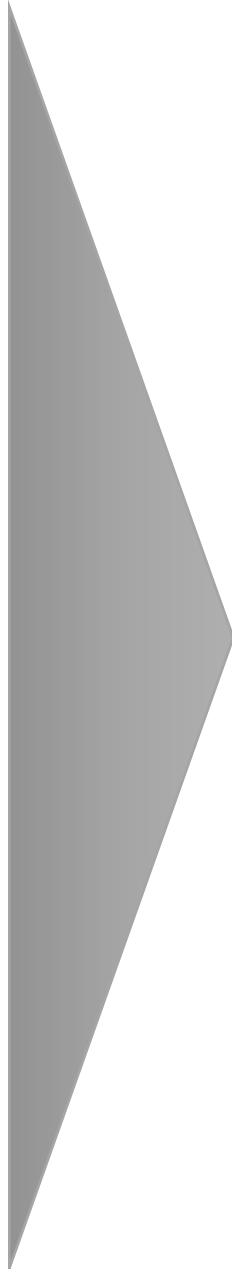
- Console developer
- Component manufacturer

Publishers

- Marketing
- Packaging
- Physical Sales

Distributor

- Major retailers
- Video game stores



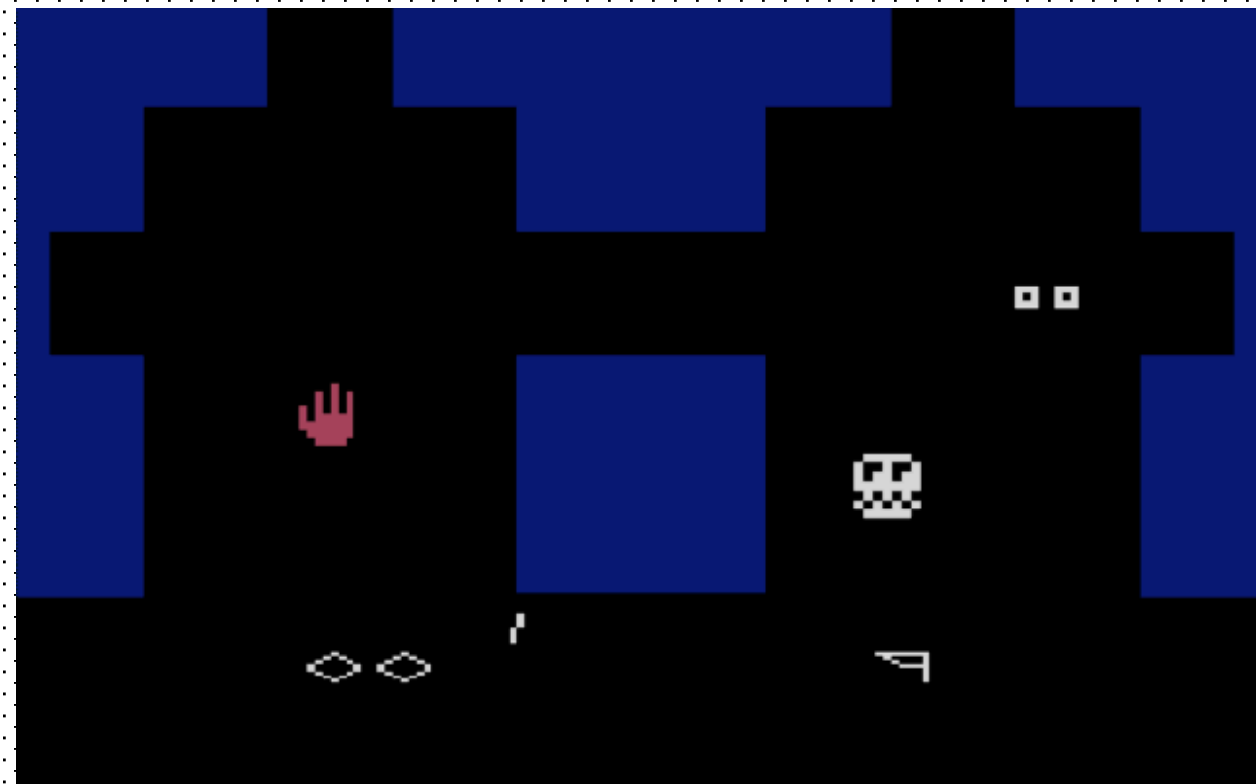
Case study: Deployment tactics

- A “generation” defined by the ‘X’-bit system
 - What is Bit?
 - $2^X = \text{“RAM Size”}$
- Impact
 - able to run “bigger” games
 - able to run the games faster (lesser loading time/lag/crash)
- High incentive drive innovation and the industry

Beginning: Atari's "Pong" (1972)

- Atari (1972)
- 1977 VCS CX2600:
Played on the TV that is connected to a Atari console
- 1 million in revenue in the first year, and \$3 mill by 1984 in US
- Problem:
 - not secured system –
a flood of game & console developers
 - More than 60 knockoffs
 - Tarnish the brand and eat its profits
 - 1985 - "end of video game industry"





8-Bit Systems: New Entrants

- Entrants from Japan
 - 1985: Nintendo's 8-bit Nintendo Entertainment System (NES)
 - 1986: Sega's 8-bit Master System
- Marketing
 - Atari - few hundred thousand
 - Nintendo and Sega = \$15 mil



8-Bit Systems: Comparison

- Nintendo: Quality games and characters, and more game titles
 - Most money
 - 1 mill in first year and 19mil by 1990
 - Low priced console
 - Earned from games
 - Most players
 - Dominated $\frac{1}{3}$ of households in US and Japan
 - Most hype
 - MTV



8-Bit Systems: Problem

- Restrictive policies made Nintendo profitable
 - Distributorship were regulated by Nintendo to prevent price slashing
 - Made games in house
 - Strict licensing for 3rd party developers
 1. Limited number of titles: so they have incentive to make good quality games
 2. Minimum cartridges preordered
 3. Not allowed to replicate game in other consoles
- Alienated distributors and developers
- Federal Trade Commission imposed sanctions

16-Bit System: Players

- 1989: Sega's 16-bit Genesis
 - Better performance than 8-bit system
 - Leverage on popular arcade games
 - Backward compatibility
 - 20 game titles by end of 1989, 130 by 1991
 - FY: 600,000 consoles in the United States, 2 mill by end of 1991
- 1989 fall: NES: TurboGrafx-16
 - 12 game titles by end of 1989, 80 by 1991
 - Entered US late to avoid cannibalising its 8-bit system
 - FY: 200,000 consoles in the United States, 1 mill by end of 1991



16-Bit System: Problem

- NES's Problem:
 - Relied on external game developers that found its system to be a minor improvement from 8-bit. Hence they abandoned it
 - NES exited by 1991
- 1991: Super Nintendo Entertainment System (SNES)
 - Too late to compete with Sega - market leader
 - 80% of video game market (8 + 16 bit sales)

16-Bit System: Different Tactics

- Genesis:
 - less restrictive licensing to lure developers to make Sega game titles
 - Backward integration: 130 titles
- SNES:
 - focus on unit sales to drive game sales and software developer royalties
 - No backward integration: 25 titles
- Nintendo too late and offered too little value to compete (difference)

What factors do you think enabled Sega to break Nintendo's near monopoly of the U.S. video game console market in the late 1980s?

- Nintendo's folly
 - Restrictive policies drove away game developers
 - FTC sanction was costly
 - Bad entry timing with NES and SNES
- Sega's focus on:
 - Branding
 - Game experience



32/64-Bit System: New (but failed players)

- Philips' 32 bit Compact Disc Interactive (CD-i)
 - Game player, teaching tool and music system
 - Too complex and expensive
 - Did not disclose technical specs
 - less than 2% market share
- Turbo Technologies Duo
 - Too expensive
- 3DO's Interactive Multiplayer
 - Too expensive: high licensing fee for hardware and development
 - Wanted to maintain a margin
 - Failed to sell well
 - Close in 1993
- Atari: Jaguar
 - Technologically advanced
 - Developers and distributors weren't confident of it

32/64-Bit System: Main Players

- 1995: Sony's PlayStation
 - Marketing
 - Focus brand image on consumer electronics
 - Leverage on distribution channels in electronic and media
 - Toy industry
 - Exclusive games by big game developers (EA)
 - 50 titles by 1995, and 800 by 2000
 - Installed base: 2.9 mill units
- 1995: Sega's Saturn
 - Entered months later
 - only shipped to 4 retailers
 - Aggravated Bestbuy and Walmart, its long supporters
 - Difficult to program
 - Installed base: 1.2 mil units
- 1996: Nintendo 64
 - 2 titles:
 - Super Mario rapidly accepted

What strengths and weaknesses did Sony have when it entered the video game market in 1995? ...

Strength:

- Brand image
- Exclusive partnership

Weaknesses:

- Hardware issues
- Flaws of CD-i technology

32/64-Bit System: Conclusion

- No one player managed to secure monopoly
- Sony had the successful combination of a product with a technological advantage, strategies, and resources that enabled it to rapidly build installed base and availability of complementary goods, and a reputation that signaled the market that this was a fight it could win.

Why did Nintendo choose not to make its early video game consoles backward compatible? What were the advantages and disadvantages of this strategy?

- Reason:
 - System Architecture & cost
 - Moving from Cartridges to CD-I
- Advantages:
 - Nintendo ensured quality of games – performance and compatibility
- Disadvantages:
 - Unable to bring over previous installed base

128-Bit System - Round 1: Turn of the Century

What strengths and weaknesses did Microsoft have when it entered the video game market in 2001?

Sega Dreamcast (Sept 1999)	Sony PlayStation 2 (March 2000)	Nintendo GameCube (Early 2001)	Microsoft Xbox (Late 2001)
\$199	\$299	\$199	\$299
Feature: Internet Accessibility Free with 2-year contract for SegaNet	Feature: Technologically Advanced Backward Compatible	Feature: Not backward compatible	Feature: Faster processor More memory
Initial sales: 514,000 in 2 weeks 5 million by October 2000	Initial sales: 100,000 hits in a minute 1 million sales in first weekend	Initial sales: (Global) April to Sept: 510,000 units	Initial sales: 550,000 units in first week
Made a series of price cut with each contender	October: Entered US Games focused on 16-24 300 game titles by end 2001	Games and gameplay focused on 8-18	- Leverage on existing distribution channels - \$500 million on marketing and development - Gave out \$10,000 in development kits - \$100-125 loss per unit - 30-40% of games made in house
2001: Cease to make consoles, and refocus on game development for other consoles	Dec 2001: 2 million	By end of 2001: 1.3 million	By: end of 2001: 1.5 million

128-Bit System - Round 2



1. In what ways did Nintendo's Wii break with the norms of competition in the video game industry? How defensible was its position?
2. Comparing the deployment strategies used by the firms in each of the generations, can you identify any timing, licensing, pricing, marketing, or distribution strategies that appear to have influenced firms' success and failure in the video game industry?

Microsoft Xbox 360 (Late 2005)	Sony PlayStation 3 (November 2006)	Nintendo Wii (Late 2007)
Basic: \$299 ; Premium: \$399	20GB: \$499 ; 60GB: \$599	\$250
Feature: 3 power PC processor on a single chip Custom graphics processor from ATI HD graphics Backward compatible	Feature: IBM cell processor Blu-ray disc player	Feature: Wireless motion-sensing remote
Initial sales: 100,000 hits in a minute 1 million sales in first weekend	Initial sales: Sold out within minutes of launch	Initial sales: 550,000 units in first week
Multi-functionality: Online store: music, movie, TV HD-DVD drive Slashed price in fall of 2008 to \$199	Lost \$200 per unit Not backward compatible for all games	<ul style="list-style-type: none"> - Low cost console offset by low cost to develop Wii games (\$5 mill) - Unexpected attraction by all ages - Made \$50 from each unit - Selling twice as fast as Xbox 360 - Sold four times as fast as PS3
Dec 2005: 600,000 units Early 2006: 3.2 million globally By: end of 2010: 45 million sold worldwide	2007: \$3.5 million By: end of 2010: 42million sold worldwide	By: end of 2010: 75 million sold worldwide

128-Bit System - Round 2

- In 2010, Sony and Microsoft launched their own motion based controllers, which were sold as add-ons (at \$150).

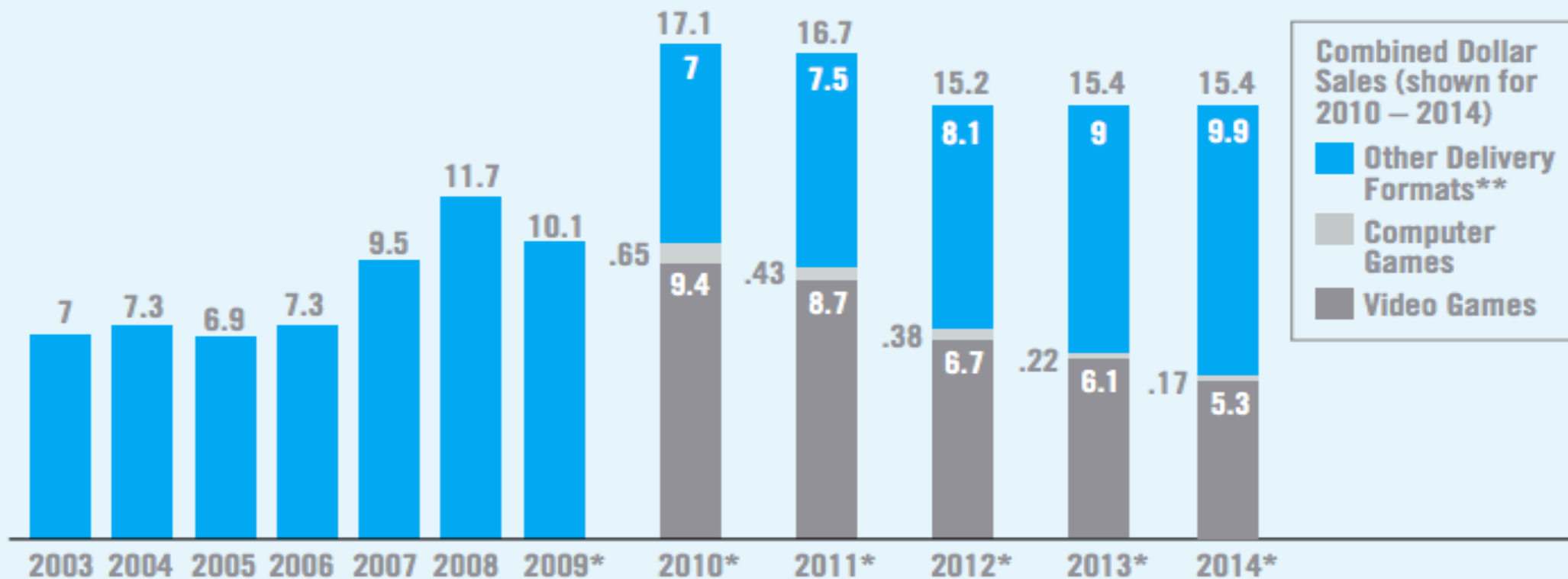


Discussion Questions

- What factors do you think enabled Sega to break Nintendo's near monopoly of the U.S. video game console market in the late 1980s?
- Why did Nintendo choose not to make its early video game consoles backward compatible? What were the advantages and disadvantages of this strategy?
- What strengths and weaknesses did Sony have when it entered the video game market in 1995? What strengths and weaknesses did Microsoft have when it entered the video game market in 2001?
- In what ways did Nintendo's Wii break with the norms of competition in the video game industry? How defensible was its position?
- Comparing the deployment strategies used by the firms in each of the generations, can you identify any timing, licensing, pricing, marketing, or distribution strategies that appear to have influenced firms' success and failure in the video game industry?

U.S. Computer and Video Game **DOLLAR** Sales

DOLLARS IN BILLIONS



Source: The NPD Group/Retail Tracking Service; Games Market Dynamics: U.S.

* *Figures include total consumer spend.*

** *Other delivery formats include subscriptions, digital full games, digital add-on content, mobile apps, social network gaming and other physical delivery. 2003-2009 figures are sales of new physical content at retail exclusively.*

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