# VIDEOGAME STRATEGIC SUPPORT

## TIGER GLOBAL CASE COMPETITION

**FINAL CASE STUDY** 









### **Situation Overview:**

You are a management consultant tasked with presenting to the board of Sony, one of the largest and most storied media & entertainment companies in the world.

Sony is launching its highly anticipated "Playstation 5" on 12<sup>th</sup> November 2020, likely to much global fanfare. The Board and Executives are seeking to develop a strategy to ensure its successful launch and monetization, while positioning Sony for future financial strength.

Sony's gaming segment has historically relied on a highly dedicated customer base of Playstation users who purchase new hardware (e.g. PS3, PS4) every 5-10 years, plus a new set of games in between hardware updates. As the definition of "gaming" expands beyond consoles and discs, and towards cloud-driven immersive experiences, Sony will need to find new ways to keep customers loyal and dedicated, all while continuing to monetize this base in between console releases.

## Your directive is to develop a business plan for Sony's game & network services segment. Specifically, you should address the following questions:

- How can Sony best monetize the Playstation 5 over the next 5-10 years? Please create a business plan for the PS5. Please specify, in US dollars, both how much *revenue* your plan can generate, and how much *profit*. In this business plan, you might consider addressing *some, but not necessarily all*, of the below questions:
  - a. How will this business plan vary by geographic region?
  - b. To what extent should Sony prioritize *console* sales versus any *additional products/services* (e.g. games, subscriptions)?
  - c. To what extent should Sony try to grow *unit* sales (consoles, games, or subscriptions) vs. raise *prices* of existing products?
  - d. To what extent can Sony leverage synergies with their other business segments, such as music, film, and electronics?
  - e. How should Sony prioritize selling to *existing* Sony customers, *winning new customers* loyal to other games, or *converting non-gamers* into potential customers?
- 2. As Sony begins to develop their plan for the Playstation 6, and even the Playstation 7, what are some key considerations for management to ensure Sony continues to grow for the next 50-100 years?
- 3. Part of Sony's publicly stated corporate mission is to "generate sustainable social value." In launching the PS5, as well as future gaming products, how can Sony best achieve this mission while simultaneously growing their profits?

Use the material in this pack, as well as any additional research that your team completes, to create a PowerPoint deck of *up to 10 slides, but no longer*, detailing your strategy and recommendations.

### **Creating Your Deck:**

Here are some guidelines and tips regarding how your Google Slides presentation should be formatted and structured:

- 1. Google Slides can be a maximum of 10 slides.
- 2. Avoid using font sizes smaller than 10pt.
- 3. Make sure there is no overflow outside of the slide.
- 4. Try to keep formatting consistent throughout your deck.
- 5. White space is your friend! Avoid trying to cram too much information into each slide.
- 6. The file name should be your team's ID number (e.g. if your ID number is 100, the PowerPoint should be titled 100.ppt).
- 7. Back up your arguments with evidence. Take data and craft it into effective visuals to support your points.
- 8. Avoid writing your team members' names or your team name anywhere in the PowerPoint.
- 9. Make sure to proofread your slides!

The slides will be evaluated according to the following criteria:

Category	Mark
<b>Issue Diagnostic</b> - Correct identification of the problem that the organisation is facing?	/10
<b>Analysis of issues</b> - How does the team view the scope of the after it is identified - what are the key bottlenecks or sub-issue contribute to the overall issue?	e issue /10 es that
<b>Scope of innovation in recommendations</b> - How unique, bol but realistic are the recommendations provided?	d /10
<b>Metrics/validation</b> - Data, analytics and visuals that confirm and support the recommendations	/10
Slide D	Deck Mark /40

### **Overview of the Global Video Game Market**

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	2018	2019	2020	2021	2022	2023	CAGR '18-'23
Video games & esports	118,565	128,782	137,894	146,389	154,486	162,393	6.5%
Esports	775	980	1,187	1,394	1,597	1,799	18.3%
Video game advertising	4,490	4,900	5,272	5,605	5,903	6,182	6.6%
Social/casual gaming	61,161	67,750	73,261	78,073	82,341	86,400	7.2%
App-based	58,051	64,943	70,756	75,860	80,409	84,731	7.9%
Browser-based	3,110	2,807	2,505	2,213	1,932	1,669	-11.7%
Console gaming	24,678	25,610	26,511	27,429	28,359	29,171	3.4%
Digital sell-through	7,356	8,173	9,003	9,861	10,744	11,641	9.6%
Online/microtransaction	3,560	4,071	4,613	5,184	5,743	6,306	12.1%
Physical games	13,762	13,366	12,895	12,384	11,872	11,224	-4.0%
PC Games	27,461	29,542	31,663	33,888	36,286	38,841	7.2%
Digital sell-through	4,385	4,780	5,195	5,656	6,158	6,716	8.9%
Online/microtransaction	21,977	23,794	25,606	27,493	29,492	31,582	7.5%
Physical games	1,099	968	862	739	636	543	-13.2%

#### PwC Global video games & esports market (\$USDm)

PwC forecasts the global videogame & esports market to be growing at ~6.5% through 2023, driven app-based gaming, as well as online/microtransactions. This market is forecasted to be worth ~\$162B USD worldwide by 2023.

The market is in a state of flux, as the balance between traditional and non-traditional gaming formats continues to shift, at different rates in varying regions. China, an enormous market dominated by social/casual revenue, has become the largest in the world, ahead of the US, which is still reliant on PC and console gaming, as the social/casual segment becomes increasingly important. The video games market is attracting a diverse audience with an equal mix of gender and a broad range of age groups, ranging from pre-teens through to over-70s. Globally, revenue is moving online, where esports generates a currently modest total but is at the influential center of an emerging gaming culture focused on streaming, social media and celebrity gamers. Innovation continues with the slow march of VR, new free-to-play models, and the imminent arrival of a new generation of console hardware.

New devices and business models have dramatically shaken up the console games market, with the "generational" hardware release model beginning to break down. A new round of 4K-enabled hardware is expected from Sony and Microsoft, although this is likely to represent less of a break from the current generation because both platform-holders want to move away from the cyclical nature of console hardware. Nintendo, meanwhile, is enjoying success with its much-younger Switch console, which is focused on innovation rather than raw processing power.

Digital sales are displacing physical—gradually, and nowhere near as fast as the collapse seen in other physical media. Sales of physical boxed games are set to decline across almost all markets, as it's less expensive for publishers to sell digital copies of games. But unlike publishers of other traditional media, video game companies are seeing digital help grow the

overall market, as it has opened up new game types, genres, and payment models.<sup>1</sup>



### Steam as a Third-Party Platform

The above chart shows the number of games that have been released on Steam (Statista/JPMorgan). In recent years, more third-party developers are taking a multi-platform approach to launching games, and there is a significant correlation in the trends for the number of titles on Steam and the number on PS platforms. The title numbers are increasing for both traditional single-purchase games and free-to-play. The number of titles on Steam has been rising rapidly since around the middle of the PS4 cycle and is maintaining momentum. This means that the PS5 is launching from a very different position than the PS4. After also considering that the PS5 will offer backward compatibility that should allow users to play more than 4,000 titles launched for PS4, a steady expansion in content choices becomes available to users.<sup>2</sup>

Sony plans to launch the PS5 during the 2020 year-end consumer season. Although the PS4 was a major success in terms of earnings, the PS5 is likely to generate even more profits. Like the PS4, third-party game developers are treating the PS5 as a key platform, and the game pipeline is plentiful. In an interview in the February 2020 edition of *Dengeki PlayStation*, Sony Interactive Entertainment's Shuhei Yoshida said that the PS5's development environment would allow for the easiest content creation ever, and that this has been well received by developers.

<sup>&</sup>lt;sup>1</sup> Source: PwC Global Videogames and Esports Report, 2019-2023

<sup>&</sup>lt;sup>2</sup> Source: JPMorgan Analyst Coverage of Sony, January 2020



### **PS5 Earnings Potential**

The chart below presents a 'blue sky' scenario based on spending per unit for heavy iPhone users (assuming signup for all of Apple's subscription services). At this level, cumulative spending per unit for the PS5 (5 years post launch) works out to ¥300k, suggesting potential for Sony's operating profits to rise to as much as ¥2,965B in FY 3/25. However, with subscription services and in-app purchase models having become established among users alongside an increase in the number of games, there are considerable earnings potential for the PS5.<sup>3</sup>



Source: Company data, Goldman Sachs Global Investment Research

<sup>&</sup>lt;sup>3</sup> Source: JPMorgan Playstation 5 Sales Forecast, July 2020

### **Sony Business Segments**

(Billion yen)									
	Sales / Financial	Services revenue	Operatin	g income	Main factors for operating income change				
FY20		FY2018 FY2019		FY2019	main ractors to operating income change				
Game & Network Services	2,310.9	1,977.6	311.1	238.4	<ul> <li>(-) Decrease in game software sales; negative impact of foreign exchange rates</li> <li>(+) Increase in sales of PS Plus; cost reduction</li> </ul>				
Music	807.5	849.9	232.5	142.3	<ul> <li>(-) Recording of remeasurement gain (116.9 bin yen) resulting from consolidation of EMI in FY2018</li> <li>(+) Recording of equity in net loss resulting from Sony's acquisition of the remaining approximately 60% interest in EMI in FY2018 (11.6 bin yen); effect of sales growth</li> </ul>				
Pictures	986.9	1,011.9	54.6	68.2	(+) Effect of channel portfolio review in Media Networks; higher profit margins on Pictures catalog titles (-) Increase in television program production cost; increase in channel portfolio review costs				
Electronics Products & Solutions	2,320.6	1,991.3	76.5	87.3	(+) Within Mobile Communications, lower operating costs and lower impairment cost against long-lived assets (-) Impact of sales decrease; negative impact of foreign exchange rates				
Imaging & Sensing Solutions	879.3	1,070.6	143.9	235.6	<ul> <li>(+) Significant increase in sales of image sensors for mobile products</li> <li>(-) Increase in depreciation and amortization expenses as well as R&amp;D expenses; negative impact of foreign exchange rates</li> </ul>				
Financial Services	1,282.5	1,307.7	161.5	129.6	(-) Reduced operating income at Sony Life (by 22.1 bln yen, to 123.5 bln yen); deterioration of valuation gains and losses on securities at Sony Bank				

FY2019 Sales / Financial Services Revenue and Operating Income by Segment

Despite overall industry growth, Sony saw a loss in FY19 over FY18, driven in part by lighter game & network services revenues, and a global weakening of the yen relative to the dollar. Sony's 2020 "Corporate Report" provides insight into segment level performance.<sup>4</sup>



### Game & Network Services (G&NS)

GG&NS is distinguished by stable recurring revenue streams, including sales of first-party titles, licensing royalties from third-party game software sales companies, and network revenues derived from PSN, which account for the growing shares of the total G&NS revenue. Additionally, earnings volatility, driven by the console cycle, has been decreasing in response to efforts to reduce the cyclical variability of expenses. G&NS limits fluctuations in its assets within a certain range by outsourcing most hardware production and expensing many new-console development costs. It invests in M&A, mainly involving game software developers, and in R&D to strengthen content IP.

<sup>&</sup>lt;sup>4</sup> Source: Sony Corporate Report 2020



### Music

Recorded music is a relatively capital-efficient business as revenues from digital distribution and sales of physical media are shared with artists and other partners. Sony has a vast music catalog amassed through major music publishing acquisitions. Although the Music segment has a low ROIC (return on invested capital), it is structured with a view toward earning stable revenues in the form of royalties, for example, and generating stable cash flows over the long term. The Music segment is actively engaged in discovering and developing talent. It also seeks opportunities to expand its catalog through acquisitions. In the fiscal year ended March 31, 2019, its invested capital increased substantially as a result of the acquisition of EMI Music Publishing. Music catalog assets are highly liquid, reflecting how the music catalog is an aggregation of previously fragmented content.

### **Pictures**

Motion pictures generate near to long-term revenue from digital distribution and television licensing in addition to box office revenue. Stable revenue can also be expected from the television production and media networks businesses, the former from its many popular television series and the latter from both subscription fees and advertising.

Because content production and acquisition costs are capitalized as deferred motion picture production expenses and recovered over lengthy timeframes, the Pictures segment has more invested capital than it otherwise would. It invests in mid-sized acquisitions of, for example, movie and television production companies.

### **Electronics Products & Solutions (EP&S)**

EP&S pursues a high-value-added strategy that places priority on profitability over sales volume. It focuses on stringently controlling costs through such means as integration of development, production, logistics and sales operations among Group companies, in addition to restructuring initiatives that extend to inventory management as well as cost structure.

R&D investment is focused on differentiated technologies and high-value-added products in the AV space. Capital expenditures mainly consist of ordinary investments that generally do not exceed depreciation. No major expenditures are planned at present.

### Imaging & Sensing Solutions (IS&S)

I&SS's core product is image sensors. I&SS is on a solid growth trajectory underpinned by its technological prowess in CMOS image sensors and large market share. In addition to mobile applications, it plans to branch into new applications, including automotive and factory automation.

Unlike semiconductor makers that must frequently upgrade production lines, the image sensor business is distinguished by capital expenditure requirements that are usually relatively low. It can differentiate products by improving their performance or adding new functionality without having to retool. It is currently investing heavily in R&D and capital expenditure to meet anticipated strong demand and develop software and new products with AI processing capabilities.



### **Financial Services**

Sony Life earns stable revenue from a unique business model of providing life insurance tailored to customers' individual life plans through in-depth consultations. Sony Assurance earns revenue from direct sales of a variety of insurance products, mainly automobile insurance, to individual consumers. Sony Bank offers mortgage loans and foreign-currency deposits to consumers via online services.

While focusing on remaining operationally sound as a financial institution, Sony Financial Group is developing products and services that incorporate technology and respond to social or environmental changes across all its businesses. It also seeks to add more value through the Lifeplanner channel in which Sony Life, SFG's core company, features.



### **Future of Cloud Gaming**

Though previous Playstation generations rely primarily on "on-premise" gaming, in which users place a game disk into a console, or download an entire game onto their local device, the "cloud gaming" segment—in which users are connected to the cloud infrastructure throughout their session, is growing at a ~99% CAGR from '18-24 according to SNL Kagan, which estimates that by 2024 there will be ~124M global paying users of cloud gaming, with a total revenue of ~\$15B US dollars.<sup>5</sup>

#### S&P Global / SNL Kagan: Global Cloud Gaming Market Forecast

	2018	2019	2020	2021	2022	2023	2024	CAGR '18-'24
Global paying users (M)	2.0	4.8	17.2	34.6	58.3	88.7	124.4	99%
Annual revenue (\$USD M)	147	441	1,703	3,357	6,069	9,999	14,926	116%

These trends are especially since the onset of the COVID-19 pandemic. According to Deloitte's 2019 Digital Media Survey, ~11% of global respondents have increased their usage of paid gaming services.



Source: Digital media trends, 14th edition (COVID-19 survey).

Similarly, from the Deloitte survey, ~27% of respondents have played video games to socially connect, and ~34% to interact with family. The implication of this finding is that, as gaming shifts to the cloud, the possibilities for social gaming begin to expand. Gaming may begin to look less like a discrete solitary

<sup>&</sup>lt;sup>5</sup> Source: SNL Kagan Global Cloud Gaming Market Forecast, September 2020

activity, and more like a contemporary social network.6

#### FIGURE 9

### Gamers have adjusted their behavior

Percentage of gamers who say they have done the following since the COVID-19 pandemic began

	1
Played video games to socially connect with others	
	27%
Watched celebrities and athletes play virtualized sports	
16%	
Broadcasted my own game play for the first time	

Video games include some of the most complicated content yet to enter the streaming revolution, and as cloud gaming begins to scale, streaming technologies and telecom networks may find it difficult to deliver top gaming experiences on par with existing solutions. The video game industry is mature, and its success has only grown. It is unclear whether the prospect of cloud gaming offers enough incentive for game companies and players to radically change how they create, distribute, and consume video games. Nevertheless, many technology and telecom companies are steadily moving into media and entertainment, and even game companies are beginning to think like broadcasters.

Indeed, some have dubbed cloud gaming "the Netflix of video gaming."5 This comparison may be instructive, but not for the ways many people think. Netflix introduced its streaming service in 2007 and in four years had exceeded 23 million subscribers—over 280 percent growth, mostly in streaming.6 Few at the time recognized the value of streaming, so competition was minimal, and the company found it relatively easy to license content. Neither of these conditions exists today, and streaming video games is a much bigger technical challenge than streaming video. (Source: Deloitte)

Several cloud gaming companies failed to captivate consumers at the beginning of this decade. Most notably, in 2010, OnLive made a lot of noise, offering instant access to popular game titles via an affordable set-top box or a desktop app. But it quickly became apparent that the technology and network infrastructure at that time was incapable of supporting it. Most users, even those with a very fast internet connection, experienced a choppy gaming experience caused by high or unstable connection latency. Since then, investments from Google, Intel, Microsoft, and Nvidia have led to significantly improved – but not yet perfected – cloud architecture and video-compression algorithms to support cloud gaming. Technical challenges and questions around the business model remain, but cloud gaming providers are now significantly better positioned for success than their predecessors were almost 10 years ago. The global proliferation of fast internet connectivity has also significantly increased the

<sup>&</sup>lt;sup>6</sup> Source: Deloitte, "Future of Cloud Gaming," 2020.

addressable market (source: Ovum).



### Next Generation: An AR/VR future

Technological leaps in hardware and software have brought AR to billions of devices. The success of Pokémon GO in 2016 and the release of Apple's and Google's AR developer tool kits have propelled the popularity of mobile AR games and applications. Hugely popular face-augmenting "selfie filters," initially popularized by Snapchat, are now also widely available on most social networking and photo apps; these have also demonstrated the basic capabilities of AR to most smartphone users.

Game makers are increasingly looking to integrate AR features to deliver uniquely immersive gaming experiences not available on traditional gaming platforms. Unlike Pokémon GO or Wizards Unite, which utilize AR sparingly, the next-generation mobile AR games such as Microsoft's upcoming Minecraft Earth will utilize AR extensively as the main component of gameplay. More "immersive" mobile games like Minecraft Earth will emerge, allowing numerous players in the same physical space to interact with virtual worlds.

According to Ovum Consulting's estimates, in 2020 the installed base of AR-capable smartphones will be a whopping 3.6 billion, a significant addressable market for game makers to target. The use of advertising in conjunction with AR features will also grow rapidly, driven by Google's strong involvement in this space. App makers will look to utilize AR advertising alongside traditional monetization methods. Because interacting with virtual objects by holding up a phone provides a limiting immersive gaming experience, talks around gaming AR headsets will also be renewed.

Although VR headsets have failed to excite consumers to the extent that many predicted, their



global installed base continues to grow and will reach 79 million units in 2020. VR suffers from the classic "chicken-and-egg" situation over content: games developers are reluctant to invest in content until the headset market takes off, but the limited range of quality content is a major barrier to headset adoption. Despite its significantly smaller user base, VR will generate more revenue than mobile AR games, thanks to a more engaged and dedicated user base (see below figure).





### The Cost of Cloud

The next-generation mobile AR games, available to billions of smartphones, will require continuous data connection to provide immersive experiences. Likewise, streaming VR content requires very fast and low-latency internet connections. It is important to highlight that both AR and VR are nascent technologies in the context of the broader media and entertainment industry. Nevertheless, the use of these technologies will continue to grow. The impressive capabilities of 5G mean network operators are well positioned to offer premium data plans geared toward AR and VR gaming users.

Media & entertainment consultancy Altman Solon forecasts the cost cloud compute to be declining at a ~5.3% CAGR through 2028, which is a promising sign for the future profitability of AR/VR games, especially as large entertainment co.'s and videogame developers remain, for the most part, reliant on the cloud giants of Amazon, Microsoft, and Google.

#### Gaming Dev. Tech Market - Decrease in Cloud Costs

Price per workload is expected to decline at a -5.3% CAGR through 2028, as server efficiency and the use of reserved instances increases



#### North America Public Cloud Average Unit Price

### **Sony Financial Model**

As appendix material for this case study, we have included a ~20-year financial model for Sony. This xls file includes the three major financial statements, as well as a revenue build by Sony's operating segments.

In no way are you expected to create output similar to this model, or even use this file, but you may find it useful as you analyze Sony's financial health over the past several years, and make a projection for Playstation sales in the next 5-10 years.

For example, you'll find in this model a breakdown of Playstation hardware and software sales, by generation, over the past several years:

1		+						
	A B C	S	т	U	v	W	x	Y
		2013	2014	2015	2016	2017	2018	2019
2		3/2014	3/2015	3/2016	3/2017	3/2018	3/2019	3/2020
294					11,464			
295	Game & Network Service	2013	2014	2015	2016	2017	2018	2019
296	G&NS revenue	1,043,858	1,388,029	1,551,893	1,649,799	1,943,812	2,310,872	1,977,551
297	yoy chg.	47.6	33.0	11.8	6.3	17.8	18.9	-14.4
301	Hardware	513,425	733,757	721,829	598,373	590,624	527,701	371,911
302	PS2	3,000	0	0	0	0	0	0
303	units	0.5						
304	unit price	6,000						
305	gross profit/ unit	1,500						
306	PSP	20,000	7,400	0	0	0	0	0
307	units	1.4	0.5					
308	unit price	14,286	14,800					
309	gross profit/ unit	<u>1,200</u>	<u>1,200</u>	<u>1,200</u>				
310	PS3	170,300	58,900	21,000	14,000	0	0	0
311	units	7.2	3.1	1.1	0.7	0.0	0.0	0.0
312	installed base	85.0	88.1	89.2	89.9	89.9	89.9	89.9
313	unit price	23,653	19,000	18,500	18,000	17,500	17,000	16,500
314	gross profit/ unit	1,389	1,500	1,000	500	500	500	
315	PS Vita	40,800	37,500	39,300	37,200	30,000	27,000	15,750
316	units	2.4	2.5	2.6	2.5	2.0	1.8	1.1
317	installed base	7.9	10.4	13.0	15.5	17.5	19.3	20.3
318	unit price	17,000	15,000	15,000	15,000	15,000	15,000	15,000
319	gross profit/ unit	(1,667)	(1,000)	500	500	500	500	500
320	PS4	262,500	488,400	584,100	600,000	513,000	464,400	327,800
321	units	7.5	14.8	17.7	20.0	19.0	17.8	13.6
322	installed base	7.5	22.3	40.0	60.0	79.0	96.8	110.4
323	unit price	35,000	33,000	30,000	30,000	27,000	27,000	25,000
324	gross profit/ unit	0	2,000	1,500	1,500	1,000	1,000	(500)
325	PS5							
326	units							
327	installed base							
328	unit price							
329	gross profit/ unit							
330	Peripherals					162,108	162,903	115,520
331	PSVR					35,000	40,300	59,800
336	Hardware gross profit	8,430	32,350	28,890	35,290	19,500	5,750	(2,595)

Please refer to the attached file for further details and remember—your job is to keep your recommendations clear, concise, and high level. The financial model should support your work, rather than become the focus of it.

### **Further Reading and Resources**

Feel free to consult the following resources for further information and to help in your analysis.

### Additional Information on Sony:

- Official company website
- Investor Relations materials
- Sony's Yahoo Finance Page

### **Global Video Game Market**

- "The Future of Cloud Gaming," Deloitte. <u>https://www2.deloitte.com/us/en/insights/industry/telecommunications/future-of-cloud-gaming.html</u>
- "Video Game Industry Statistics & Facts." Statista https://www.statista.com/topics/868/video-games/

### Financial:

**Financial modelling and accounting knowledge are not necessary** for your team to do well. However, the following resources may help develop your financial acumen and/or support your analytical work.

- "Financial Statements," Investopedia https://www.investopedia.com/terms/f/financial-statements.asp
- "Corporate Finance & Accounting," *Investopedia*.
   https://www.investopedia.com/corporate-finance-and-accounting-4689821
- "Overview of Financial Modelling," Corporate Finance Institute, June 18th, 2017. https://corporatefinanceinstitute.com/resources/knowledge/modeling/what-is-financial-modeling/

We highly recommend that your team also conducts your own research. There are many fantastic sources out there that extend beyond the scope of the materials listed in this case study!

We wish you the best of luck and we look forward to reviewing your PowerPoint presentations.