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## **Sony Interactive Entertainment: Playstation 5 (Ps5) Market Analysis**

**a feasibility study report in compliance with the  
subject information of assurance & security**

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## **I. Asset Overview**

Gaming console development and marketing were the main priorities of Sony Interactive Entertainment, a part of Sony Corporation. The Company is well-known among fans of gaming consoles as a substantial shareholder in one of their newest consoles, the PS5. Many consumers are experiencing chip shortages and demand problems as a result of widespread demand. Most people tried a variety of game consoles like The PS4, PlayStationVR, PlayStationStore.

### **A. Development Costs & Acquisitions**

The PS5 was announced as the successor to the PlayStation 4 in April 2019, and it was released on November 12, 2020 in Australia, Japan, New Zealand, North America, and South Korea, with a global release following a few weeks later. Mark Cerny, the PlayStation console line's lead architect. Sony reported \$4.5 billion in revenues from PlayStation. The production of the PlayStation 5 is said to cost around \$450 per unit. Sony said in August 2022 that it will raise the price of the PlayStation 5 by up to 20% in most regions where it is sold, citing global economic, inflationary, and supply chain challenges. However, there was no price increase in the United States.

It managed to sell 2.3 million units in the same quarter last year. Sony also closed its acquisition of Bungie. Sony also confirmed that it has closed its \$3.6 billion acquisition of game studio Bungie, the original creators of the Halo and Destiny franchises. The transaction was completed much sooner than anticipated.

### **B. Training Costs**

Sony Interactive Entertainment America, founded in 1995, is a well-established corporation that values hiring graduates from San Diego State University, with 20.0% of its workers having attended the university. Sony Interactive Entertainment America has established itself as a fantastic place to work in California, and it is number 6 on Zippia's list of Best Companies to Work for in Foster City, California. Sony Interactive Entertainment America's average annual salary is \$126,650, which is

extremely competitive given its region and industry. Sony Interactive Entertainment America, based in California, is a major participant in the hotel business, with 8,000 workers and a \$45 million yearly income. This translates to **\$1,013,200,000** on yearly salary expense. This amount takes into account training expenditures.

$$\text{\$126,650} * 8,000 = \text{\$1,013,200,000}$$

### C. PlayStation 5

The PlayStations 5 is one of the latest commercially viable products released by Sony Interactive Entertainment. The product was initially released in Nov 2020 after the acquisition by the game studio Bungie. As Sony has published its financial results for the three months ended September 30, 2021, claiming a 27% year-on-year growth in revenues in its game division. The segment's sales totaled \$5.7 billion, but operating income fell 21% to \$727,000,000. Revenue was recorded at \$10,800,000,000 billion in revenue.

<b>Product Revenue</b>	\$10,800,000,000
<b>Development Cost</b>	\$2,160,000,000
<b>Training Fees</b>	\$1,013,200,000
<b>Service costs</b>	\$1,000,000
<b>Maintenance Costs</b>	\$4,000,000
<b>Net Revenue</b>	<b>\$4,449,000,000</b>

\*Training costs guess estimates are lesser as this is even before major recruitment

## II. Financial Value

Sony's market capitalization is \$96.52 billion as of December 2022. This puts Sony the world's 136th most valuable firm by market valuation according to our statistics. The market capitalization, often known as market cap, is the total market value of a publicly traded business's outstanding shares and is widely used to determine the worth of a company.

### III. Analysis

An excellent example of cost benefit analysis would be securing the database used by Sony interactive entertainment. Data in the database may come from telemetry from Sony's PlayStation 5, games and their employee's data. With the ongoing presence of the company, it can easily be one of the targets of hackers, or the company's system undergoes a system failure if backups, firewall and controls are not set.

#### A. Single Loss Expectancy (SLE)

Sony's PlayStation was the most popular gaming console operating system in 2021, with a global market share of around 64.5 percent. First debuted in 1994, the PlayStation consoles have since become one of the most popular gaming gadgets, delivering millions of copies globally. If the firm's database is worth \$3,000,000.00 in assets, an EF (Exposure Factor) of 50% or 0.5 is a decent indication of the risk the company faces if the database fails in some manner. As a result, Sony Interactive Entertainment's Single Loss Expectancy would be:

$$\begin{aligned}\text{SLE} &= \text{Asset Value} * \text{EF} \\ \text{SLE} &= \$3,000,000,000 * 0.5 \\ \text{SLE} &= \$1,500,000,000\end{aligned}$$

An event involving a compromised database would cost the corporation around \$1,500,000,000 billion in damages.

#### B. Annualized Loss Expectancy (ALE)

Annualized Loss Expectancy (ALE) If the estimated probability of the database being compromised to be 20% per year, the ALE based on the values above would be:

$$\begin{aligned}\text{ALE}_{(\text{prior})} &= \text{SLE} * \text{ARO} \\ \text{ALE}_{(\text{prior})} &= \$1,500,000,000 * 0.20 \\ \text{ALE}_{(\text{prior})} &= \$300,000,000\end{aligned}$$

Should the database be secured, the risk would be reduced to %5 per year, the ALE based on the values above would be:

$$\begin{aligned} \text{ALE}_{(\text{post})} &= \text{SLE} * \text{ARO} \\ \text{ALE}_{(\text{post})} &= \$1,500,000,000 * 0.05 \\ \text{ALE}_{(\text{post})} &= \$75,000,000 \end{aligned}$$

### C. Cost-Benefit Analysis (CBE)

With the ALE values above, we can calculate the Cost-Benefit Analysis (CBE) using the formula below. The ACS is the annual operation cost in securing the company's computing infrastructure, this includes, but not limited to securing the server, database, adding firewall, regular backups, and training IT personnel would cost \$500,000.

$$\begin{aligned} \text{CBE} &= \text{ALE}_{(\text{prior})} - \text{ALE}_{(\text{post})} - \text{ACS} \\ \text{SLE}_{(\text{post})} &= \$300,000,000 - \$75,000,000 - \$500,000 \\ \text{CBE} &= \$224,500,000 \end{aligned}$$

This means that the company would save \$224,500,000 with the security applications implemented.

## IV. Evaluation

Taking the necessary precautions to secure the Sony Interactive Entertainment database (Firewalls & Backups). It would also reduce the chances that the database would be hacked, as well as the possible harm should such an incident eventuate. As a result, we conclude that Sony Interactive Entertainment would benefit from the control or action taken.

## V. References

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