

# VIDEO GAME SALES

## ANALYSIS REPORT

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form 3'-hydroxymobarbital [2] and  
M-glucosidation [3] to form  
1-(beta-D-glucopyranosyl)amobarbital [4]

When given slowly by an intravenous route, sodium amobarbital has a reputation for having activity as a so-called truth serum. A person under the influence of the drug in this circumstance will relate information that he or she would otherwise "block." As such, the drug was first employed criminally by Dr. William Bleckwenn at the University of Michigan to circumvent inhibitions in psychiatric patients [5]. It has been used to convict alleged murderers such as Fredrick English-Howard, who strangled his girlfriend to death but claimed innocence. He was surreptitiously administered the drug, by his attorney, and under the influence of it he revealed that he strangled her and under which circumstances. 15 years later he confessed on the stand that he was guilty of the murder of his

ADMINISTERED

# REPORT OUTLINE

**Dataset**

**Data Cleaning**

**Data Visualization**

**A/B Testing**

**Conclusion**



# DATASET



## VIDEO GAME SALES

The dataset contains a list of video games with sales greater than 100,000 copies



## **Sales** in Millions

**NA\_Sales** - Sales in North America

**EU\_Sales** - Sales in Europe

**JP\_Sales** - Sales in Japan

**Other\_Sales** - Sales in Rest of the World

**Global\_Sales** - Total Worldwide Sales

## **'Misc'** Genre

diverse category that encompasses games that don't fit neatly into specific genres

## **'Action'** Genre

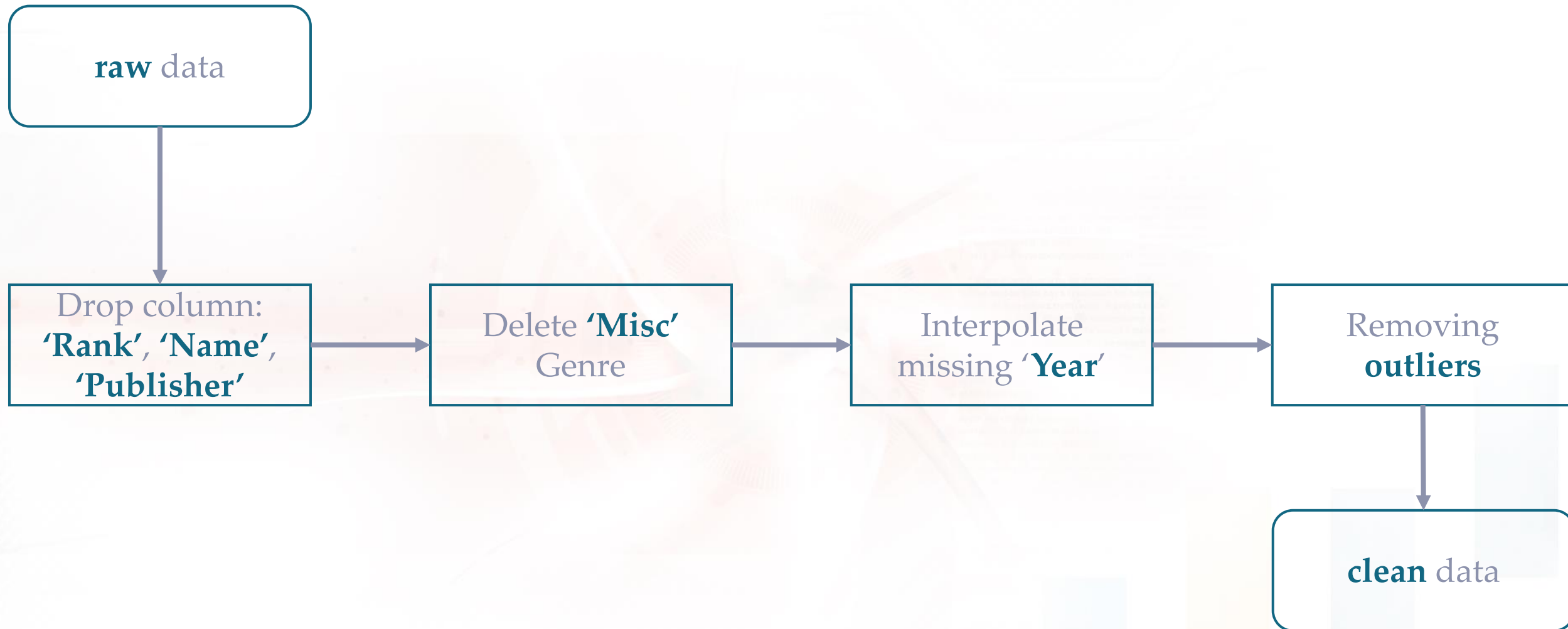
Games that emphasize physical challenges, hand-eye coordination, and reaction time.

*e.g. platform, shooter, beat'em ups, and more*



# DATA CLEANING





# DATA VISUALIZATION





What is the **top performing platform** by global sales?

in Europe, Japan, and North America?

What is the **top performing genre** by global sales?

in Europe, Japan, and North America?

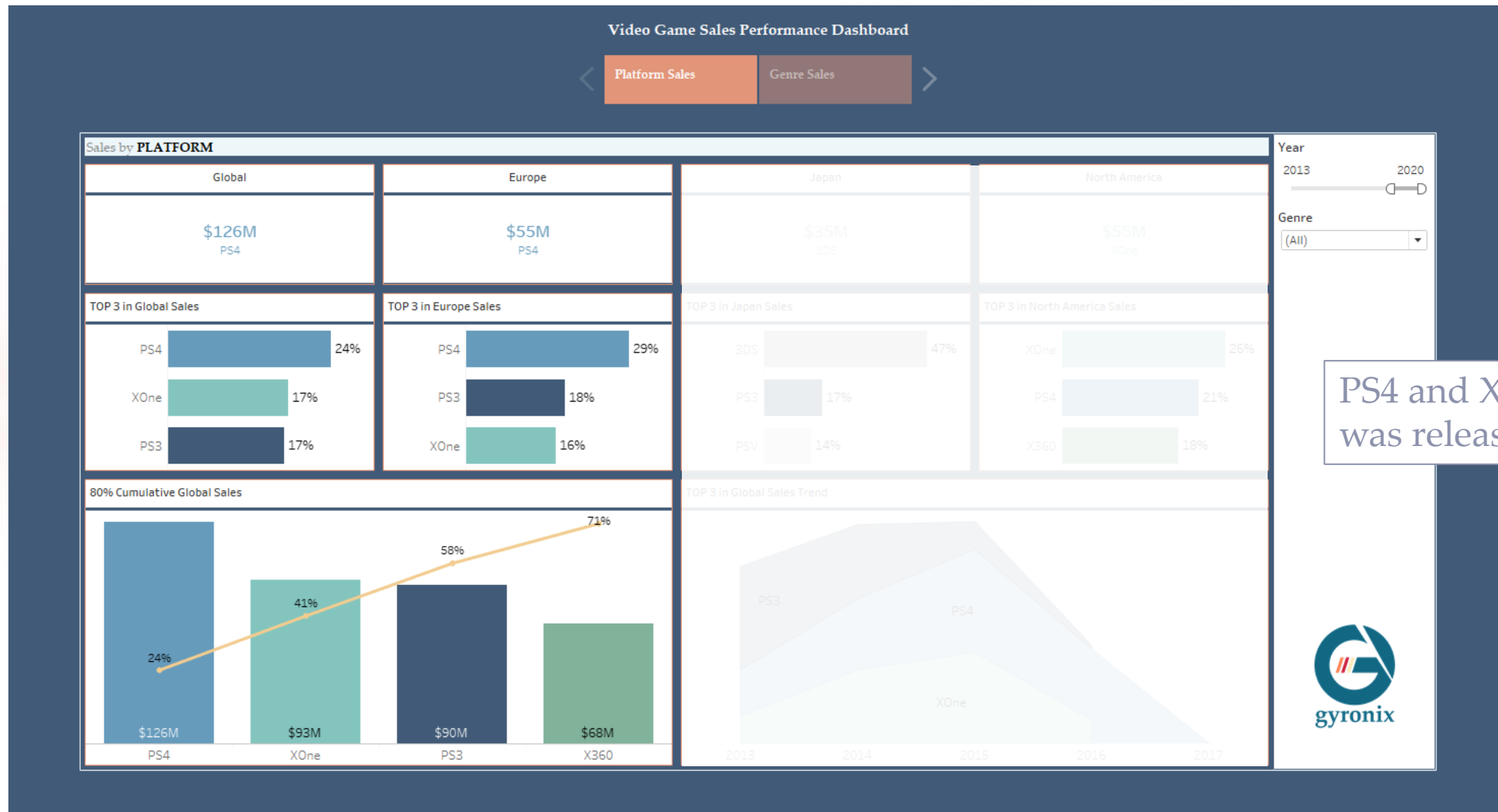
What **investment opportunities** can be found in the video game market?



# PLATFORM SALES

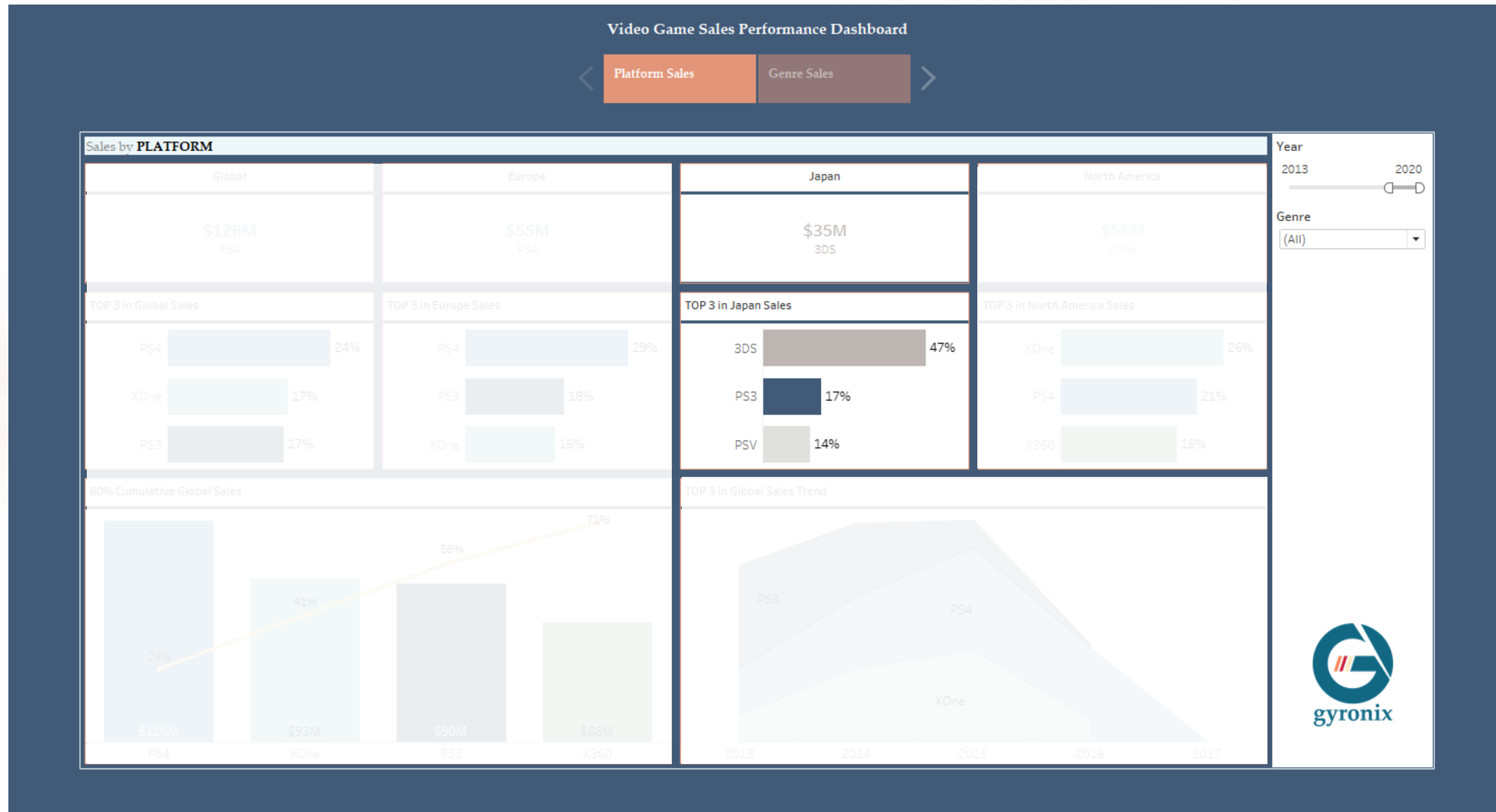


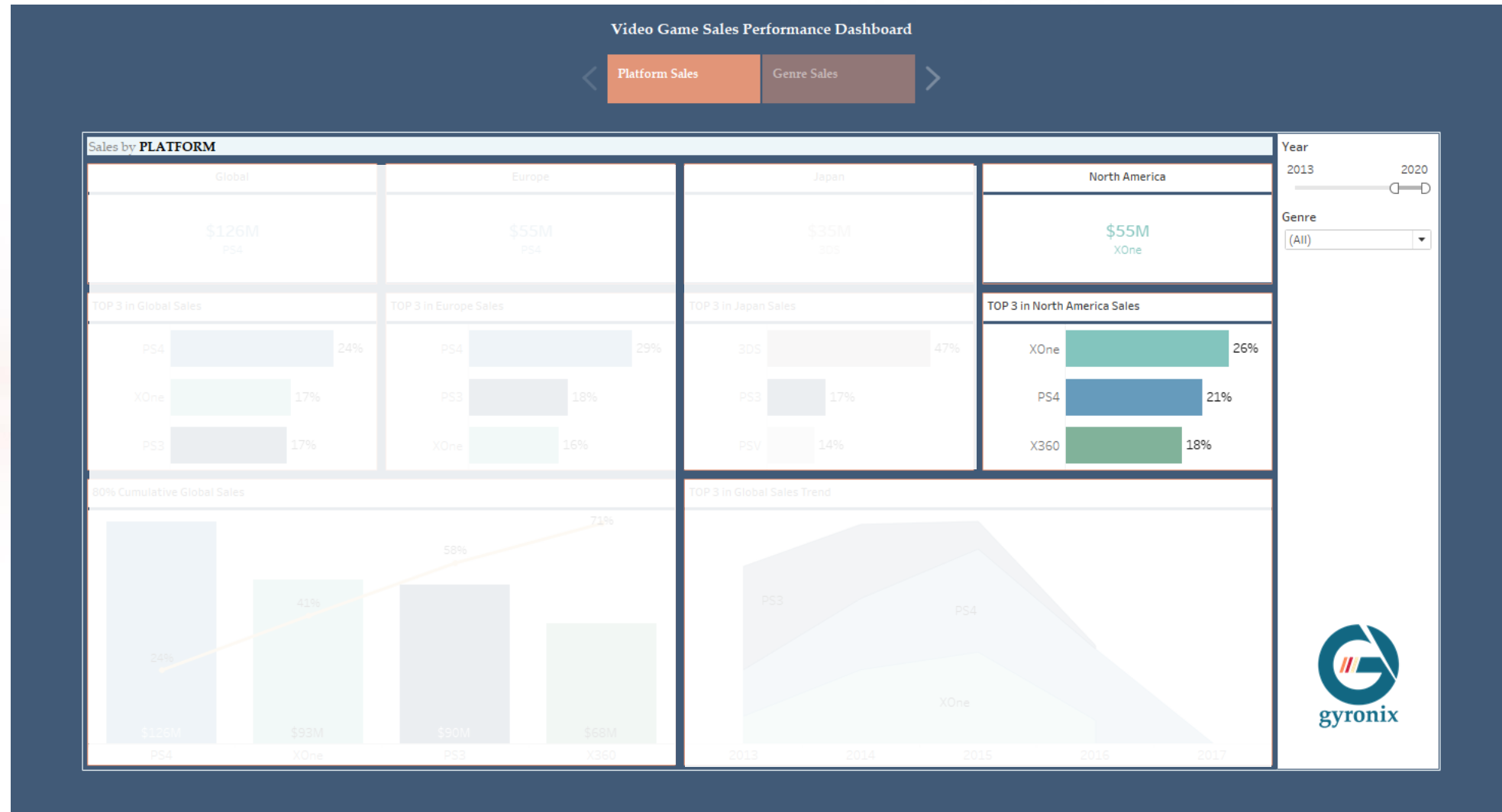
# PS4 takes 24% of the Global Sales



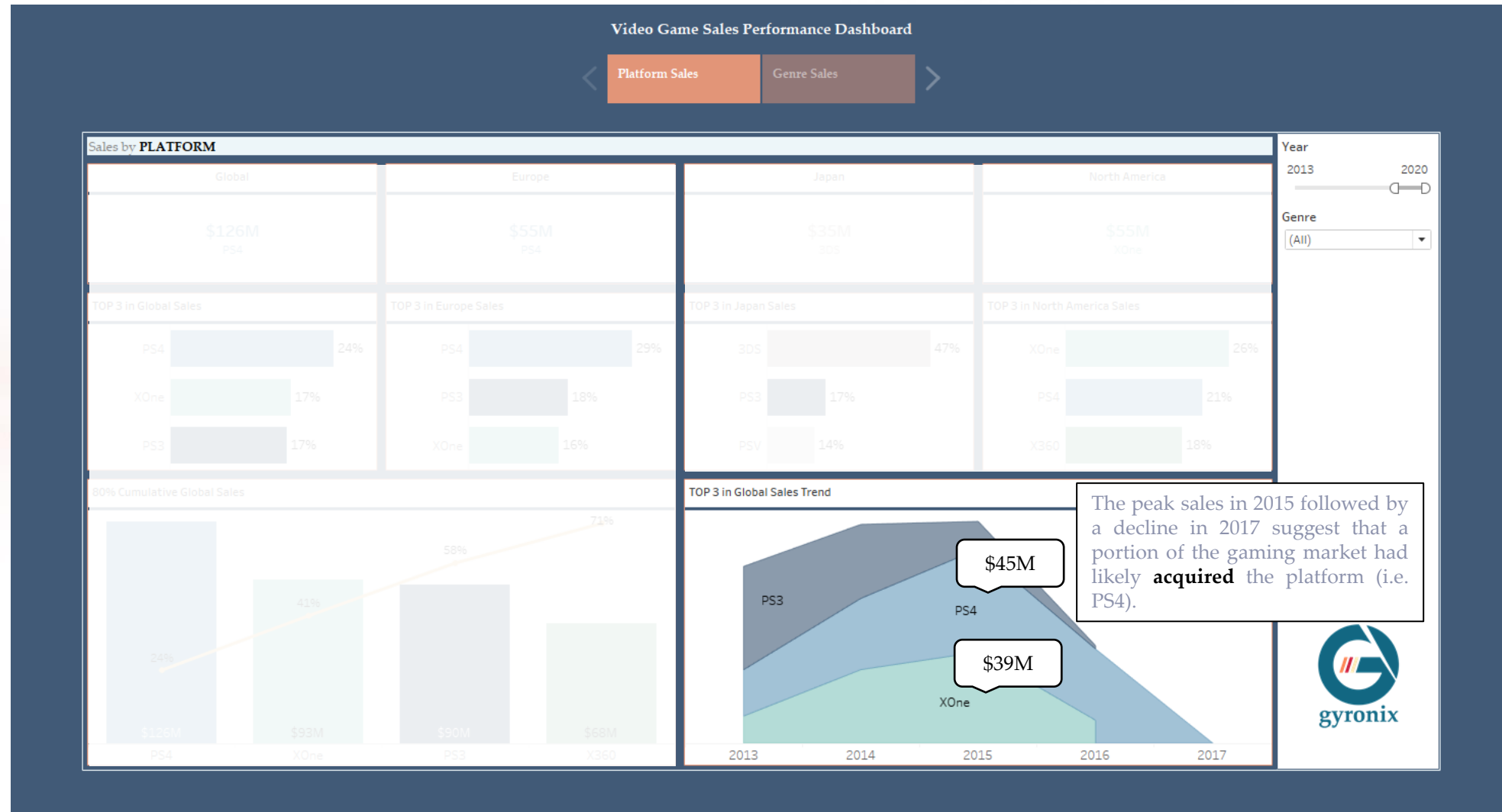
PS4 and Xbox One was released in 2013

# Japanese prefer portable gaming platform: Nintendo's 3DS

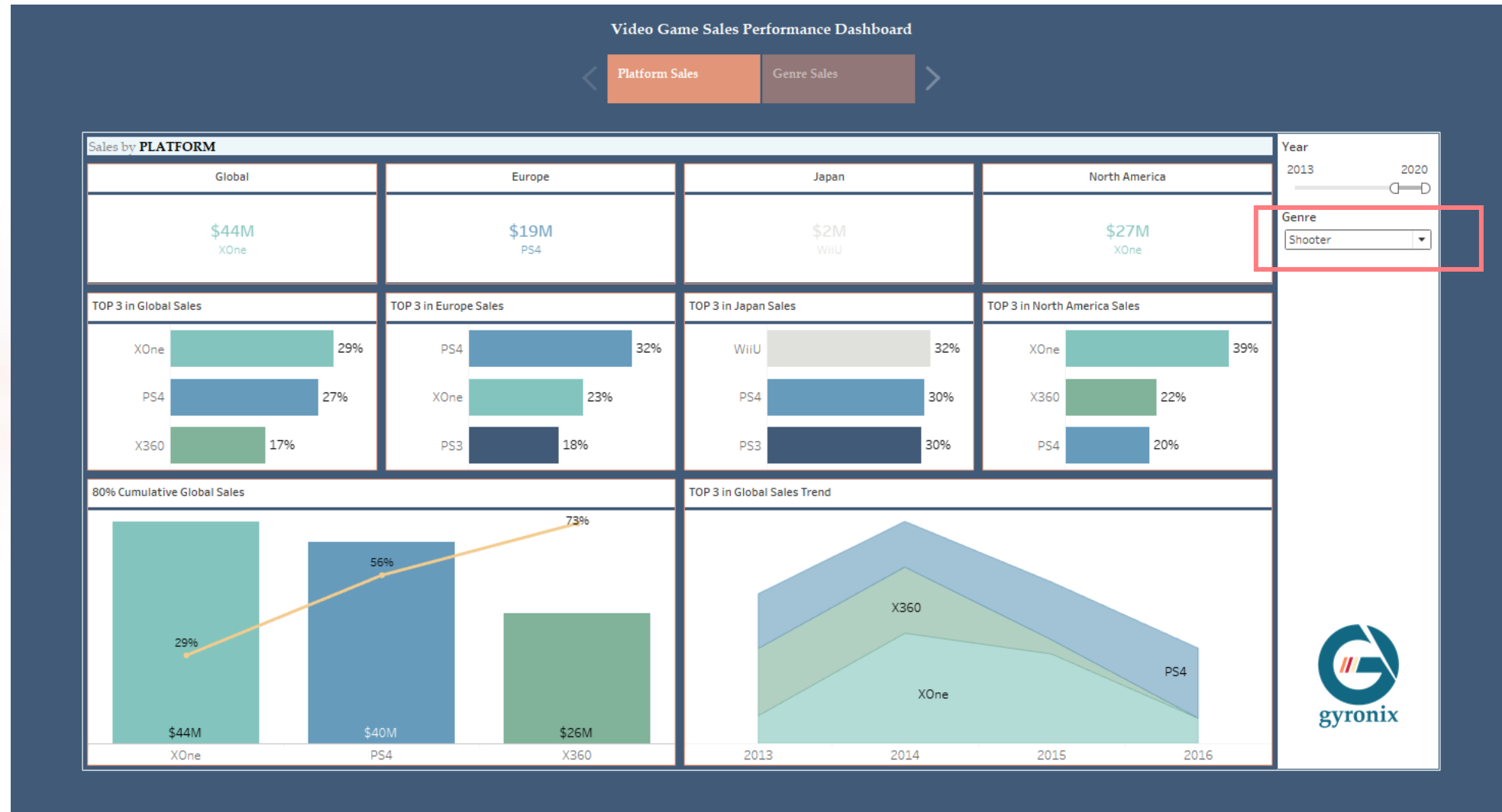




# 2 years after released (2015), PS4 outperformed Xbox One by \$6M



# Xbox One is the preferred platform for Shooter genre

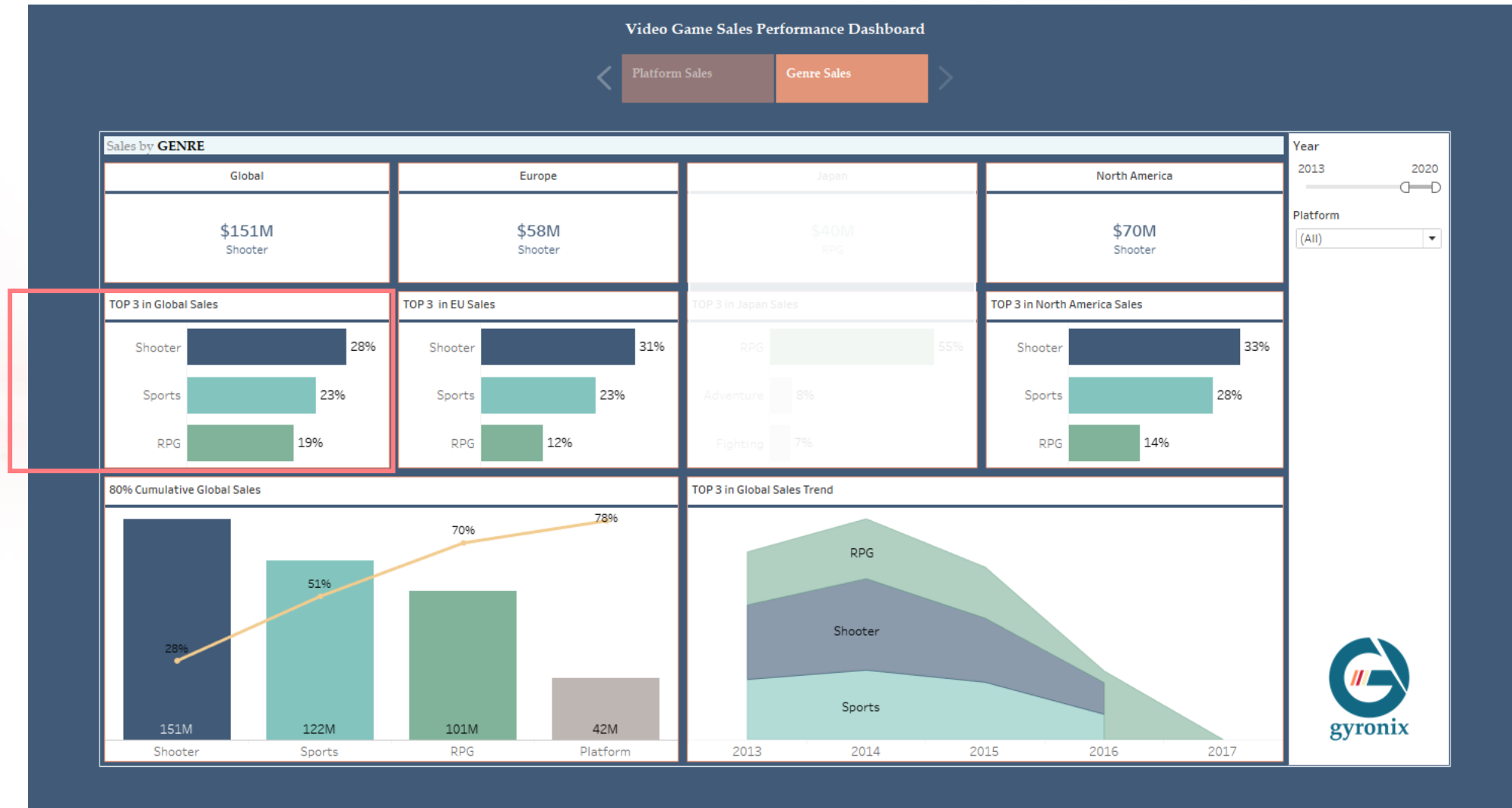


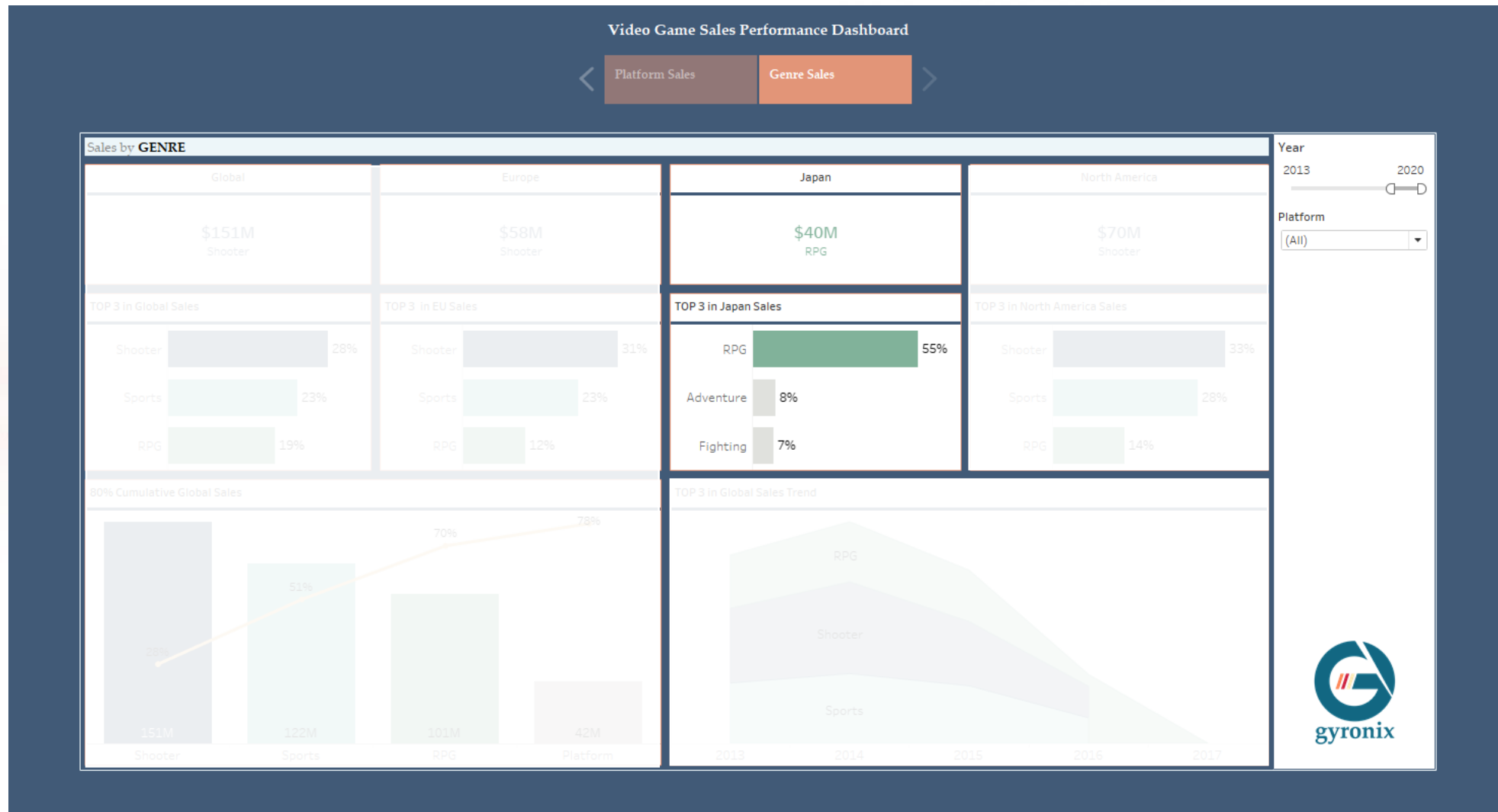
# GENRE SALES



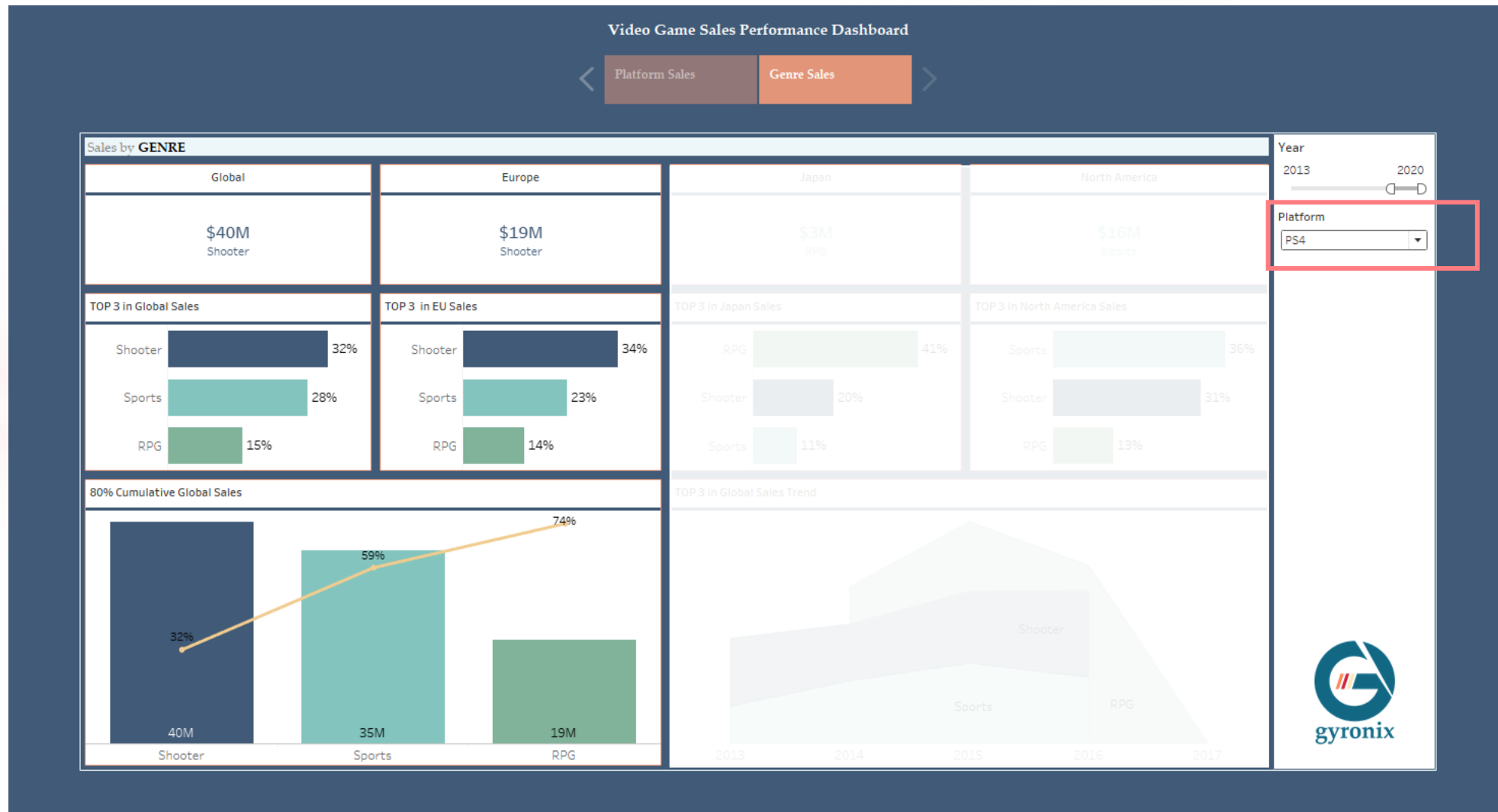


# Shooter takes 28% of the Global Sales

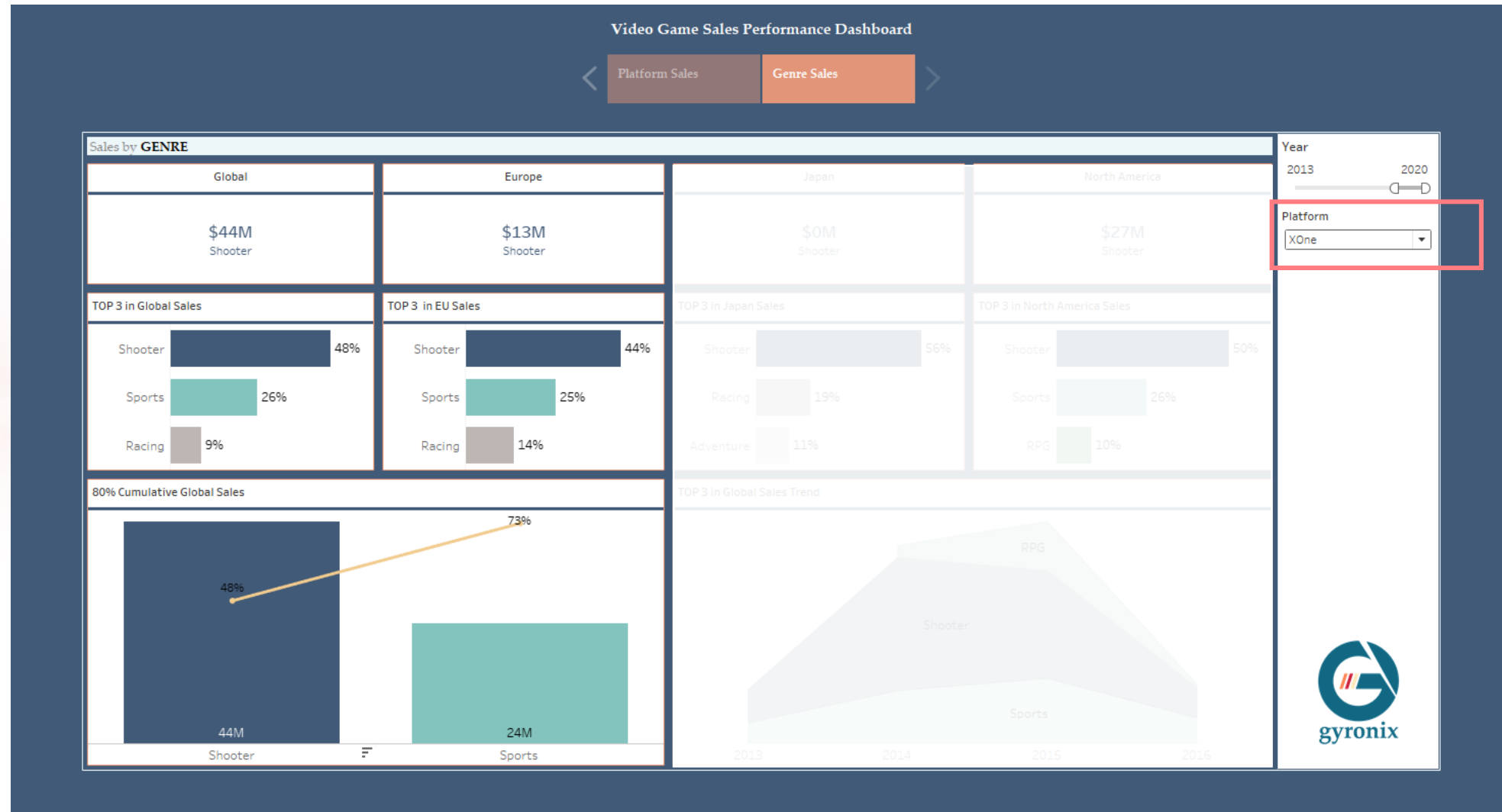




# Shooter genre takes 32% of Global PS4 Sales.



# Shooter genre takes 48% of Global Xbox One Sales.



# A/B TESTING



# PS4 VS XBOX ONE



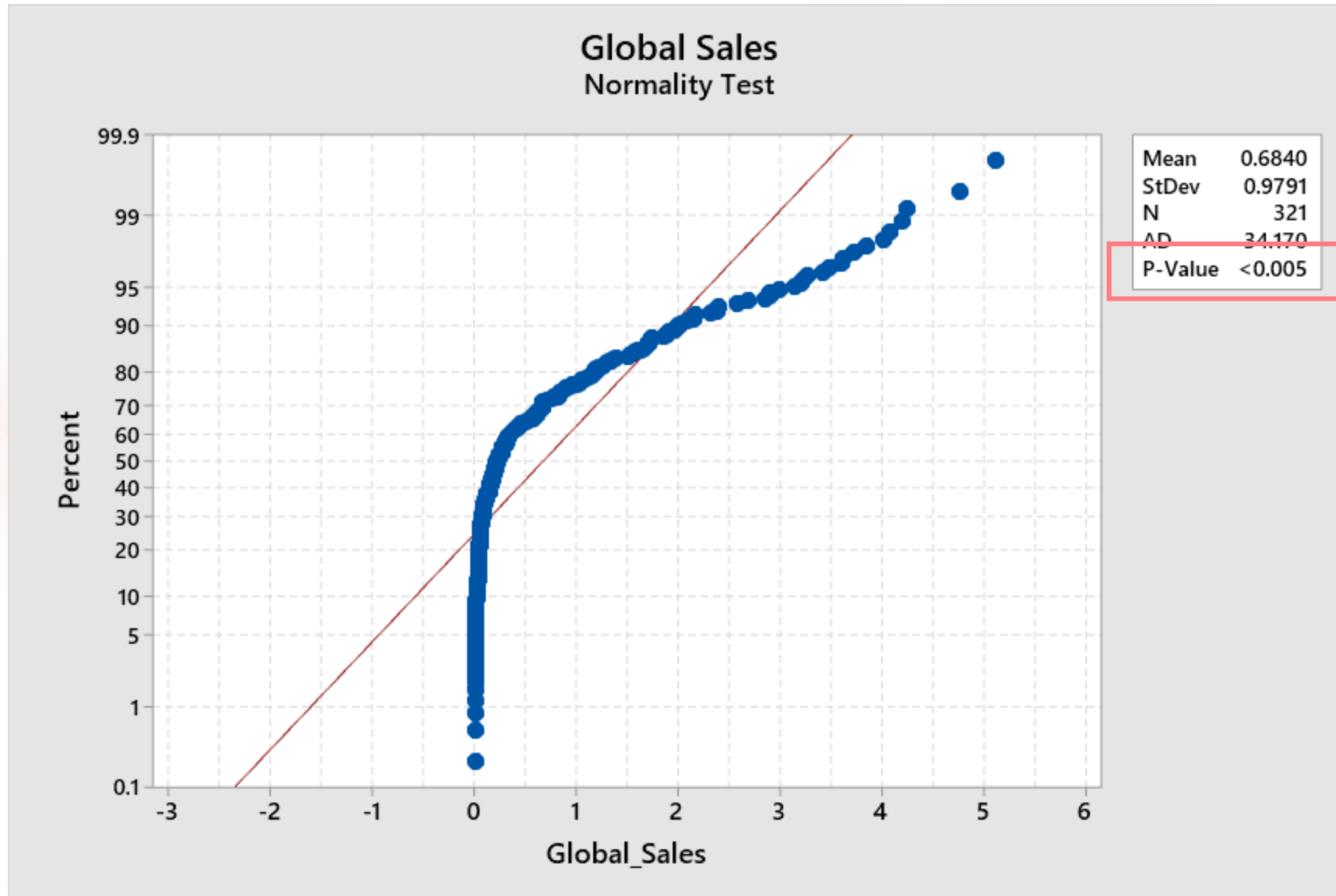
PS4 Global Sales is **higher** than Xbox One

Null Hypothesis,

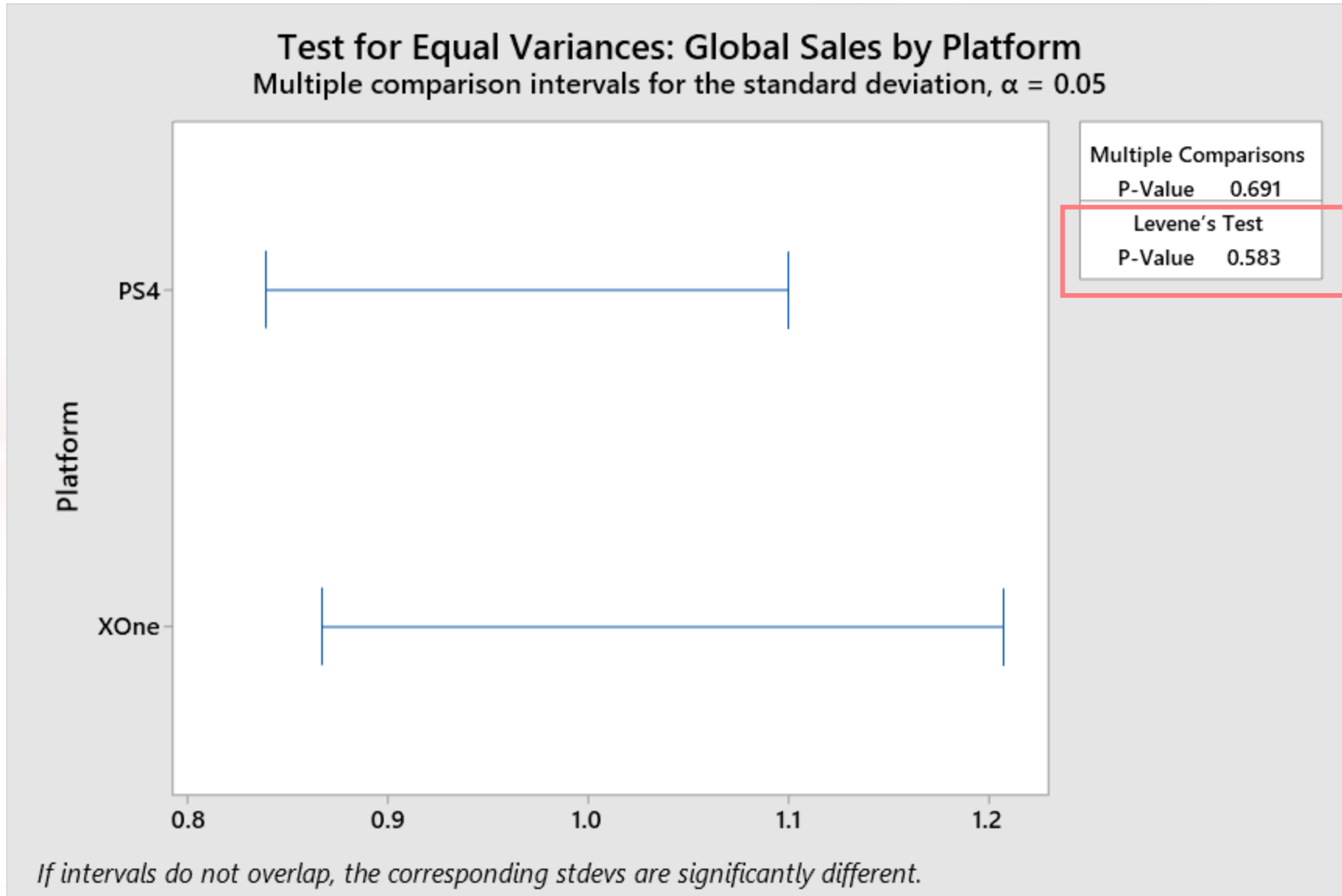
$$H_0: \text{PS4 Sales} = \text{Xbox One Sales}$$

Alternative Hypothesis,

$$H_a: \text{PS4 Sales} > \text{Xbox One Sales}$$







## Descriptive Statistics

	Sample	N	Median
	Global_Sales_PS4	192	0.22
	Global_Sales_XOne	129	0.25

## Test

Null hypothesis  $H_0: \eta_1 - \eta_2 = 0$

Alternative hypothesis  $H_1: \eta_1 - \eta_2 > 0$

Method	W-Value	P-Value
Not adjusted for ties	30561.50	0.667

P-Value = 0.667 suggests that there is **NO SIGNIFICANT DIFFERENCE** in global sales between the PS4 and Xbox One platform



# SHOOTER VS SPORTS



Null Hypothesis,

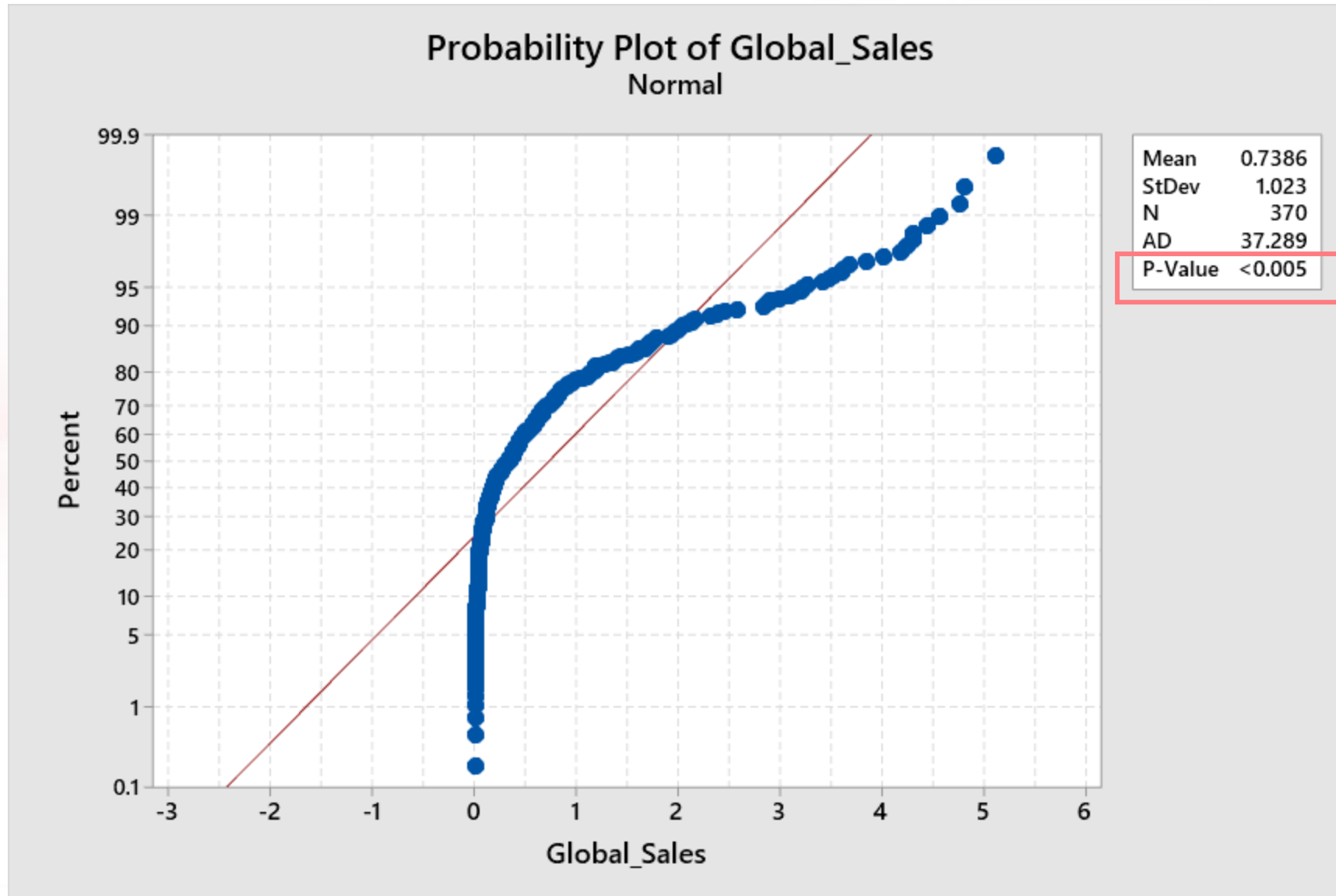
$H_0$ : Shooter Sales = Sports Sales

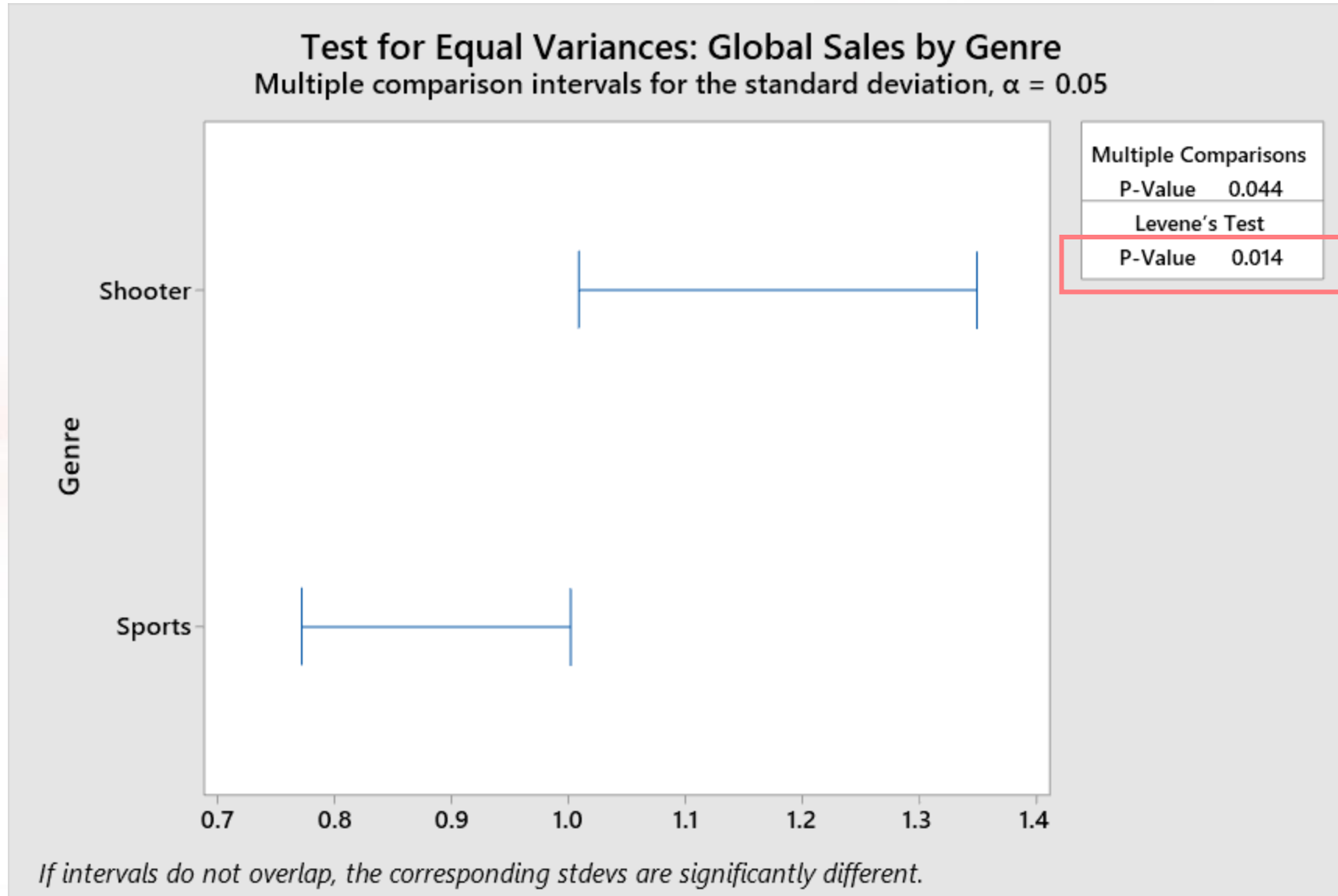
Shooter global sales is **higher** than  
Sports

Null Hypothesis,

$H_a$ : Shooter Sales > Sports Sales







## Descriptive Statistics

	Sample	N	Median
Global_Sales_Shooter	165		0.43
Global_Sales_Sports	205		0.20

## Test

Null hypothesis  $H_0: \eta_1 - \eta_2 = 0$

Alternative hypothesis  $H_1: \eta_1 - \eta_2 > 0$

Method	W-Value	P-Value
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Not adjusted for ties	33783.50	0.001
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Adjusted for ties	33783.50	0.001
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P-Value = 0.001 suggests that there is **SIGNIFICANT DIFFERENCE** in global sales between the Shooter and Sports genre



# CONCLUSION





The hypothesis test results implies that, from a platform perspective, investing in either **PS4 or Xbox One** may yield **similar returns** (p-value = 0.667). On the other hand, there appears to be a potential investment opportunity in the **shooter genre**, as it demonstrates **significantly higher** (p-value: 0.001) global sales compared to the sports genre.