

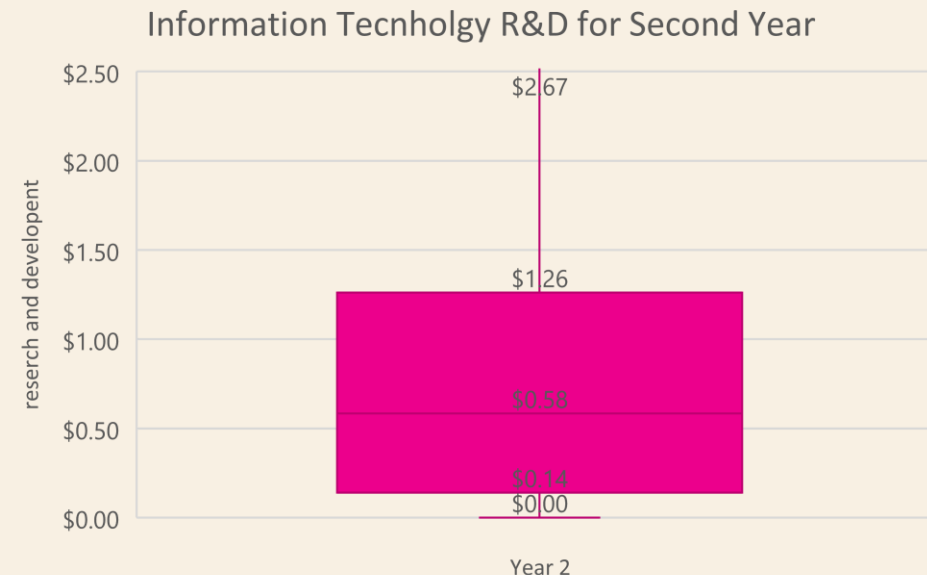
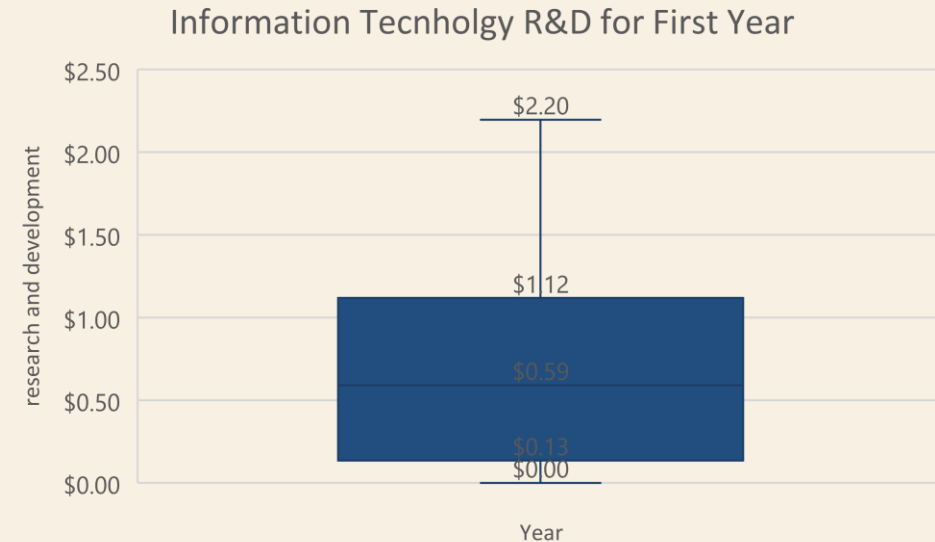


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ZAMZAM ALSHUKAILI

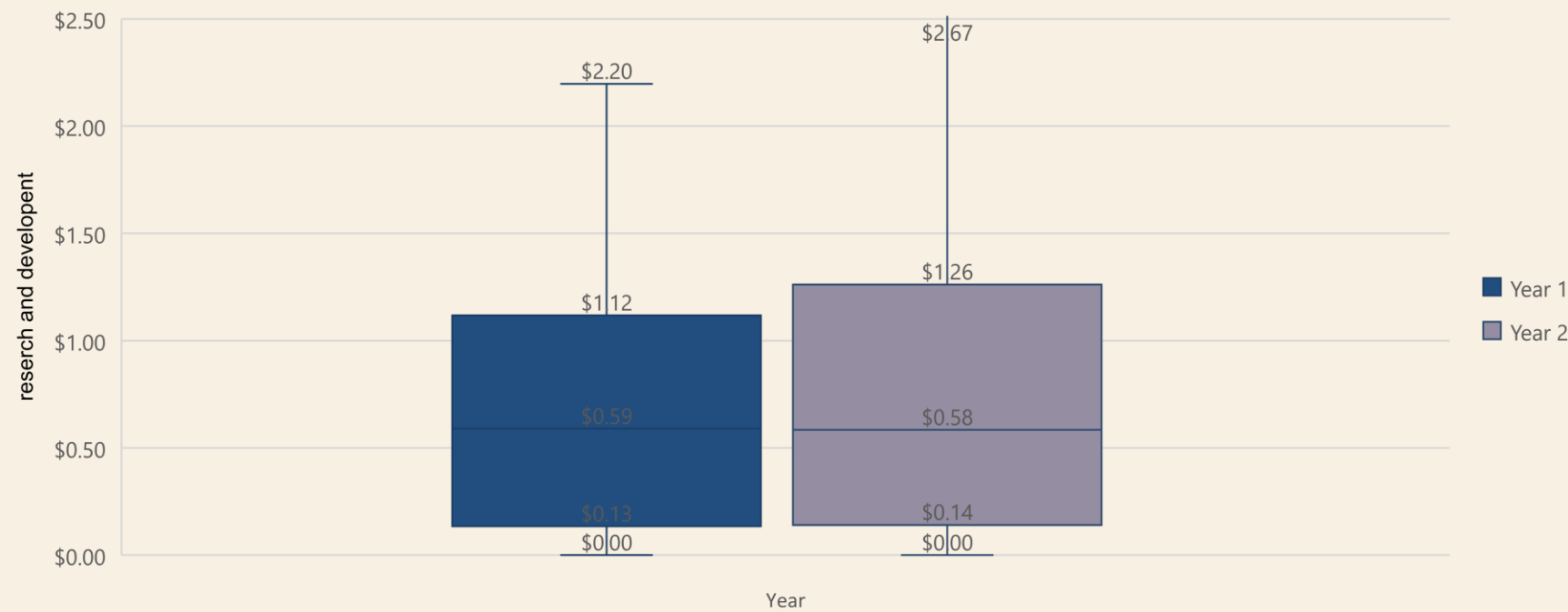
HOW MUCH INFORMATION TECHNOLOGY RESEARCH AND DEVELOPMENT CHANGED FROM FIRST YEAR TO SECOND YEAR?

- This two dashboard represent R&D for all companies in information technology sector for first and second years.
- The dashboard show that R&D mean of second year is more than mean of first year by \$100 million. Which mean companies take more serious on second year in R&D for Information technology sector.
- As we can see from box plot the mean of first year is \$1.25 billion less than mean of second year \$1.37 billion.
- On the other hand, median of first year is \$590 million more than median of second year \$584 million.
- Standard deviation for first year is \$22 million less than Standard deviation of second year \$24 million.



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Information Tecnholgy R&D for Frist & Second Year



- From boxplot above the maximum value of R&D in second year is more than first year. Which mean Range of second year is \$11 billion higher than Range of first Year 10 million. These mean the maximum currency spending on R&D is more in second year than first year for IT sector.
- Standard division for first year is more than mean of first year.As the same on second year the standard division is much higher than mean value. That tell All companies of IT sector spend more in R&D in second year.

An abstract geometric design on the left side of the slide. It features a dark blue background with various geometric shapes and patterns. A white circle is positioned near the top left. Below it, a light blue semi-circle is visible. To the right of the semi-circle, there is a pink triangle with diagonal lines. Further down, there is a pink square with a pattern of concentric lines. At the bottom, there are several triangles in shades of pink and blue. The overall design is modern and minimalist.

THANK YOU