SUSHMA (SAFETY)

**Slide 1**

* Hello everyone, I am Sushma from Team 9.
* Safety is a critical aspect in various domains.
* To monitor and analyze safety trends, a comprehensive safety dataset is essential.
* We found a Global Peace Index (GPI) produced online by the Institute for Economics and Peace and hosted online by [VisionOfHumanity.org](http://visionofhumanity.org/).
* The GPI derives a score for each country based on the level of societal safety and security, the extent of ongoing conflict and the degree of militarization.
* The dataset available had the safety index tracked back to 2008 for most countries. This has alignment with our base dataset for the years 2010 to 2022 to allow for comparison.

**Slide 2**

* After cleaning the dataset, I’ve calculated the Change in GPI versus growth rate:
  + Scatter plot shows clustered datapoints.
  + Correlation coefficient = 0.15
  + P-value = 0.05296

And hence, we can conclude that **“We can (softly) reject the null hypothesis.”**

* + As you can see, it is not a strong positive correlation.
  + But the p-value is very close to the 0.05 threshold for statistical significance.

***\* Remember, the higher the p-value, the less statistically significant the correlation\****

**Slide 3**

* The correlation coefficient for each of the three factors was not a strong correlation, but it was positive for all three.
* We initially thought the poverty data set would yield the strongest correlations, but the dataset proved to have too many variables and by the time it was cleaned the sample size was too small to make strong conclusions.
* The education dataset was closer to being statistically significant. Perhaps looking at a different datapoint could show a stronger relationship with growth rates.
* In the end, only safety had a p-value that showed that its correlation within the data to growth rate was statistically significant – even if that correlation was weak.
* If a country’s GPI improves, the rate at which its population grows will increase.