

Terrorism Data Analysis Summary

This readme summarizes the key findings from the analysis of terrorism data. The analysis covers both numerical and categorical aspects of the dataset, along with insights specific to India.

Univariate Analysis (Numerical)

- Correlation Issues:**
 - Several numeric columns exhibit high correlations with each other.
 - Missing values in numeric columns were imputed with the value "-99".
 - The use of correlation to understand relationships between these columns may not be reliable due to the imputed values.
- Trend in Terrorist Attacks:**
 - The number of terrorist attacks increased gradually until 2014.
 - 2014 saw the peak in the number of terrorist attacks.
 - After 2014, there was a decrease in the number of attacks, indicating a change in the trend.
- Number of Perpetrators Captured:**
 - The count of perpetrators captured increased over the years.
 - It reached its maximum in 2012 and showed fluctuations thereafter.
- Missing Data in 'Number of Perpetrators Captured':**
 - A line plot was used to visualize the unknown values in the 'Number of Perpetrators Captured' column.
 - The plot revealed an increase in unknown values over time, particularly in the range of 700 to 5000, up until the year 1998.
 - This suggests that data for the 'number of perpetrators captured' might not have been recorded for these years, resulting in missing or unknown values.

Univariate Analysis (Categorical)

- Duration of Incidents:**
 - Around 95% of the attacks were not "Extended Incidents," indicating they lasted less than 24 hours.
- Top Countries with Attacks:**
 - Approximately 13% of attacks occurred in Iraq, making it the most targeted country.
 - Afghanistan (9%), Pakistan (7.4%), and India (6.6%) follow closely.
- Regions with Highest Attacks:**
 - The majority (28%) of attacks took place in the Middle East & North Africa.
 - South Asia (26%), Sub-Saharan Africa (11.3%), and South America (9.5%) are the other high-attack regions.
- Uniform Distribution in Administrative Regions and Cities:**
 - The distribution in "Province / Administrative Region / State" is very uniform, with no clear pattern.
 - The same is true for the "City" column.
- Nature of Attacks:**
 - About 77% of the attacks are undoubtedly classified as terrorist attacks.
 - The remaining 17% are doubted, and 6% lack data.
- Incidents Involving Multiple Attacks:**
 - Approximately 85% of the attacks are not part of multiple incidents.
 - The remaining 15% are part of multiple incidents.
- Success of Attacks:**
 - The majority (around 88%) of attacks were successful.
 - The remaining 12% were not successful.
- Common Attack Types:**
 - The most common types of attacks are "Bombing/Explosion" (47%), "Armed Assault" (24%), and "Assassination" (10%).
- Top Target/Victim Types:**
 - "Private Citizens & Property" (24.8%) have been the most targeted group.
 - Others include "Military" (16.3%), "Police" (13.6%), "Government" (11.4%), and "Business" (10.6%).
- Nationality of Target/Victim:**
 - The nationality of the target/victim often aligns with the country with the highest number of attacks.
 - For example, in regions where attacks were highest in Iraq, the majority of targets are Iraqi.
- Active Perpetrator Groups:**
 - The most active perpetrator groups include "Taliban" (10.2%) and "ISIL" (6.2%).

Bivariate and Multivariate Analysis

1. Increasing Terrorism Over the Years:

- The number of terrorist attacks has increased over the years.
- The regions with the highest number of attacks are the Middle East & North Africa and South Asia.

2. Duration of Attacks:

- In regions where attacks extended over 24 hours, South Asia, Sub-Saharan Africa, and the Middle East & North Africa had the highest incidences.

3. Countries with Prolonged Attacks:

- Afghanistan had the maximum number of attacks lasting over 24 hours, followed by India, Nigeria, and Iraq.

4. Common Attack Methods:

- The majority of attacks (around 85%) involved "Hostage Taking."
- "Armed Assault" was the second most common method, constituting around 7% of attacks.

5. Active Perpetrator Groups:

- While a majority of attacks have "Unknown" group names (approximately 26%), some active perpetrator groups include "Taliban," "ISIL," "Ansar Allah," "Boko Haram," and "Al-Shabaab."

6. Common Weapon Types:

- "Firearms" are the most common weapon type.
- "Explosives" and "Melee" weapons are also used, but less frequently.

7. Regions with Highest Fatalities:

- The Middle East & North Africa has the maximum number of fatalities, followed by South Asia and Sub-Saharan Africa.

8. Fatalities in Specific Regions:

- In the Middle East & North Africa, Iraq has the highest number of fatalities, followed by Syria and Yemen.
- In South Asia, Afghanistan records the highest fatalities, followed by Pakistan and India.
- In Sub-Saharan Africa, Nigeria has the highest fatalities, followed by Somalia and Congo.

9. Common Attack Types by Region:

- In Sub-Saharan Africa, "Armed Assault" is the most common attack type, followed by "Bombing/Explosion" and "Hostage Taking (Kidnapping)."
- In the Middle East & North Africa and South Asia, "Bombing/Explosion" is the most common attack type, followed by "Armed Assault" and "Assassination."

10. Target/Victim Types:

- In Sub-Saharan Africa and South Asia, "Private Citizens & Property" are the most common targets.
- In the Middle East & North Africa, the order is similar, but "Police" is the third most common target type.

11. Nationality of Target/Victim:

- In Sub-Saharan Africa, "Nigeria" is the most common nationality of the target, followed by "Somalia" and "South Africa."
- In the Middle East & North Africa, "Iraq" is the most common nationality of the target, followed by "Yemen" and "Turkey."
- In South Asia, "Afghanistan" is the most common nationality of the target, followed by "Pakistan" and "India."

12. Active Perpetrator Groups by Region:

- In Sub-Saharan Africa, "Al-Shabaab," "Boko Haram," and "Fulani Extremists" are among the most active groups.
- In the Middle East & North Africa, named perpetrator groups like "ISIL," "Ansar Allah," and "PKK" are active.
- In South Asia, "Taliban," "CPI-Maoists," and "Maoists" are the most active groups.

13. Common Weapon Types by Region:

- "Firearms" and "Explosives" are the most common weapon types across all three regions.

14. Successful Suicide Attacks:

- The regions of the Middle East & North Africa, South Asia, and Sub-Saharan Africa have the highest number of successful suicide attacks.

15. Data Collection Sources:

- A majority of the data was collected by "START Primary Collection" (50%).
- Other significant data sources include "PGIS" (30%), "ISVG" (8.2%), and "CETIS" (7.7%).

🇮🇳 India-Specific Analysis 🇮🇳

India has witnessed a distinct pattern of terrorist incidents, which differs from global trends. Here are the highlights:

- **Peak in Attacks:** The highest number of attacks in India occurred around the year 2016, marking a different trend compared to the global data.
- **Common Attack Types:** Approximately 40% of attacks in India are characterized as "Bombing/Explosion." "Armed Assault" follows as the second most common attack type at 26%. Additionally, "Hostage Taking (Kidnapping)" and "Assassination" account for 10% and 9% of attacks, respectively.
- **High Fatalities in Specific Cities:** Total fatalities have been highest in several Indian cities. Notable cities with a significant number of fatalities include "Srinagar," "Mumbai," "New Delhi," and "Amritsar."
- **Top Target/Victim Types:** "Private Citizen & Property" is the most frequently targeted category, followed by "Police" and "Government (General)."
- **Active Perpetrator Groups:** The most active terrorist group in India is "CPI-Maoist," followed by "Maoist" and "Sikh Extremists."
- **Common Weapon Types:** "Explosives" and "Firearms" are commonly used in terrorist attacks in India.