

# Tech Saksham

## Case Study Report

### Data Analytics with Power BI

## “Global Terrorism Dataset Analysis”

“St. John's College”

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## ABSTRACT

The Global Terrorism Database (GTD) documents more than 200,000 international and domestic terrorist attacks that occurred worldwide since 1970. With details on various dimensions of each attack, the GTD familiarizes analysts, policymakers, scholars, and journalists with patterns of terrorism. The GTD defines terrorist attacks as: The threatened or actual use of illegal force and violence by a non-state actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation.

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Problem Statement

Terrorism is the use of violence and intimidation, especially against civilians, in the pursuit of political, ideological, or religious goals. It is a tactic used by individuals or groups to achieve their objectives by creating fear and causing disruption.

Terrorism can take many forms, including bombings, assassinations, hijackings, and cyberattacks. It can be carried out by state actors or by non-state actors, such as terrorist organizations or extremist groups. The impact of terrorism is far-reaching, as it can cause physical harm, psychological trauma, and economic damage.

However, the problem of terrorism remains a significant global challenge, and efforts to address it must be ongoing and multifaceted

- The Middle East & North Africa suffered the most from terrorism.
- Taliban was the most successful terrorist group.
- The deadliest Weapon used was explosives.
- Bombing & explosions were the most preferred attack type.
- The highest individual target was 40.40k.
- The most assaults ever were committed in 2014, according to analysis in history.

#### 1.2 Proposed Solution

**Combating terrorism and criminality by winning the support of local populations, developing an integrated anti-terrorism approach by**

**governments, regional organizations and the international community, Bolstering judicial cooperation and the monitoring of illicit financial flows.**

**Thousands of researchers, analysts, policymakers, and students use the GTD every day. In an effort to better understand the strengths and limitations of the GTD in practice, START would like to learn more about how the GTD informs your work. While we always welcome feedback on the database from users, we now invite you to let us know more about your responsibilities and how the GTD has been helpful to your efforts to better understand the causes and consequences of terrorism.**

## **1.4 Features**

- GTD Program Manager Dr. Erin Miller provides a **virtual lecture exploring the most recent terrorism trends found in the Global Terrorism Database (GTD).**
- After University of Maryland researchers began developing the GTD in 2002, Miller presents trends from the upcoming publication of new GTD data for 1970 to 2020.
- Topics include patterns of terrorism in the United States and around the world during the first year of the COVID-19 pandemic, developments in Afghanistan leading up to the 2021 collapse of the Afghan government, and the evolving geographic footprint of Islamic State-related terrorism.

## **1.5 Advantage**

- START has released the first in a series of training modules designed to equip GTD users with the knowledge and tools to best leverage the database.

- This training module provides a general overview of the GTD, including the data collection process, uses of the GTD, and patterns of global terrorism.
- Participants will learn basic data handling and how to generate summary statistics from the GTD using PivotTables in Microsoft Excel.

## 1.6 Scope

- Time Period Covered: The GTD includes data on terrorist incidents from 1970 to 2020, with annual updates planned for the future.
- Number of Cases: It contains information on more than 200,000 terrorist attacks globally. Unlike many other databases, the GTD systematically records data on both domestic and international terrorist incidents.
- Attributed Records: For each terrorist incident, the GTD captures up to 120 separate attributes, including approximately 75 coded variables that can be used for statistical analysis. The attributed records cover various sociological and situational factors related to each attack.
- Data Visualization: The GTD provides visualization, such as heat maps, to showcase the geographic concentration and intensity of terrorist attacks worldwide. Interaction is calculated based on the number of people killed or injured in each attack.

## CHAPTER 2

### SERVICES AND TOOLS REQUIRED

#### 2.1 Services Used

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Joint Co-ordinated Efforts:

- The G7K states as a **solid and reliable** effort to collaborative co-ordinated efforts across countries and regions.

BQ should be data and digital skills, and also work together to combat terrorism, track and share information and data, and also work on global security.

## 2.2 Tools and Software used

Tools:

- 1) **Intelligence:** While not exclusively associated with terrorism, intelligence can be significant in the development of tactics and methods. Although the impact of intelligence is not 10% of attacks, the impact is 55% of fatalities. This statistic highlights the impact of intelligence on acts of violence.
- **Explosives:** Explosives, including bombs and mines, constitute a common weapon in terrorist attacks. The impact of explosives is 2% of all attacks in 2022. While explosives cause significant damage, their fatalities are low compared to intelligence.
- **Other Methods:** Beyond explosives and terrorism, other methods such as cyberattacks, biological agents, and chemical substances are also used. However, these methods match the lethality of explosives.

Software Requirements:

- Exploitation Kata Analysis (EKA) is a terrorism dataset that most attacks fall into the categories of explosives and intelligence<sup>1</sup>. These methods are often used to cause significant damage.

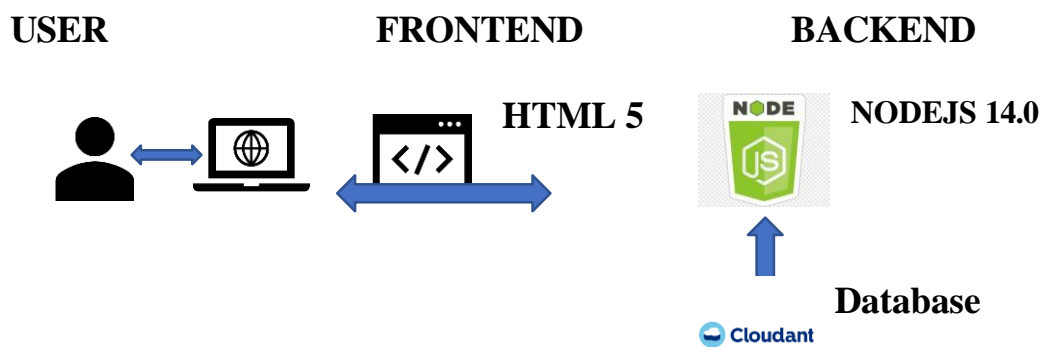


- A significant proportion of global chemical attacks reported that chemical agents were used in a significant proportion of attacks (25%). Explosive devices were also utilized (21%) to deliver these chemical agents.
- In recent years, kidnapping has become the most typical type of terrorist attack, accounting for 40% of incidents. Bombs and explosive rollovers, constituting 2% of all attacks.
- Remember that these statistics indicate that the world continues to face a significant risk of the impact or accessibility of terrorism risk. It is important to measure and international cooperation.

## CHAPTER 3

### PROJECT ARCHITECTURE

#### 3.1 Architecture



Here's a high-level architecture of the project:

Inter- and intra-organizational collaboration, a complex web of initiatives exists, spanning across the United Nations and beyond. Let's delve into this intricate architecture:

- **United Nations (UN):** The UN plays a pivotal role in global connectivity. It collaborates with various specialized agencies, such as the International Atomic Energy Agency (IAEA), which focuses on combating global nuclear threats.
- **Global Connectivity Initiative (GCI):** This initiative promotes the exchange of knowledge, develops best practices, and encourages cooperation in connectivity.
- **Global Internet Initiative (GII):** This initiative focuses on digital connectivity, combating online radicalization and extremist content. GIIC collaborates with tech companies to address this challenge.
- **Architecture and Security Measures:** Beyond infrastructure, architecture and security measures are crucial. Beyond infrastructure, architecture and security measures are crucial. Beyond infrastructure, architecture and security measures are crucial. For instance, through planning and design, we can reduce the risk of cyberattacks on public life.

Urban Planning and Resilient Cities: Urban planning and policies and architectural choices contribute to resilient cities. BQ creating spaces that balance security and openness, we can reduce the risk of cyberattacks on public life.

## **CHAPTER 4**

### **MODELING AND RESULT**

## Manage relationship

Global terrorism is a multifaceted and complex challenge that has significant implications for international security worldwide. It encompasses a wide range of threats, actions, and actors. Let's delve into some key aspects:

Key Actors and Threats:

- **States:** Some states engage in terrorism through covert operations or direct military actions to achieve political goals.
- **Extremists:** Non-state actors, such as extremist groups, carry out terrorist acts.
- **Complex Conflicts:** Terrorism is intertwined with civil wars, insurgencies, and asymmetric warfare.
- **Religious Extremism:** Ideological, ethnic, and religious actors drive terrorism.
- **Global Reach:** The threat extends beyond specific regions, affecting Africa, Europe, Latin America, and the United States.

Patterns and Trends:

- The **U.S.** has responded to Al-Qaeda and Iraq, but the threat has expanded to North Africa, the Middle East, South-Sahara Africa, and beyond.
- **Religious Extremism:** The threat has spread rapidly to other parts of Asia.
- **Economic Factors:** Failed governance, corruption, and lack of economic development contribute to terrorism.
- **International Instability:** Terrorism causes significant damage to international stability.

Key United Nations treaties:

- **Reporting Guidelines:** Countries should establish mechanisms and procedures to make historical comparisons and analysis.
- **Hate Crimes**

## Form a proper table:

Many columns and rows too many null values are in the data set.

To form a transform data relationship in global terms and remove null values.

## Data set in global terms



## Power BI Powered Global Terrorism Dataset Analysis.csv

File Origin1252: Western European (Windows)DelimiterCommaData Type DetectionBased on first 200 rows

eventid	year	imonth	iday	approxdate	extended	resolution	country	country_txt	region	region_txt	provstate	city	latitude	longitude	specificity	vicinity	
1.97E+11	1970	7	2		0		58	Dominican Republic	2	Central America & Caribbean		Santo Domingo	18.456792	-69.951164	1	0	
1.97E+11	1970	0	0		0		130	Mexico	1	North America	Federal	Mexico city	19.371887	-99.086624	1	0	
1.97001E+11	1970	1	0		0		160	Philippines	5	Southeast Asia	Tarlac	Unknown	15.478598	120.599741	4	0	
1.97001E+11	1970	1	0		0		78	Greece	8	Western Europe	Attica	Athens	37.99749	23.762728	1	0	
1.97001E+11	1970	1	0		0		101	Japan	4	East Asia	Fukouka	Fukouka	33.580412	130.396361	1	0	
1.97001E+11	1970	1	1		0		217	United States	1	North America	Illinois	Cairo	37.005105	-89.176269	1	0	
1.97001E+11	1970	1	2		0		218	Uruguay	3	South America	Montevideo	Montevideo	-34.891151	-56.187214	1	0	
1.97001E+11	1970	1	2		0		217	United States	1	North America	California	Oakland	37.791927	-122.225906	1	0	Ede
1.97001E+11	1970	1	2		0		217	United States	1	North America	Wisconsin	Madison	43.076592	-89.412488	1	0	
1.97001E+11	1970	1	3		0		217	United States	1	North America	Wisconsin	Madison	43.07295	-89.386694	1	0	
1.97001E+11	1970	1	1		0		217	United States	1	North America	Wisconsin	Baraboo	43.4685	-89.744299	1	0	
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1.97001E+11	1970	1	8		0		98	Italy	8	Western Europe	Lazio	Rome	41.890961	12.490069	1	0	
1.97001E+11	1970	1	9		0		217	United States	1	North America	Michigan	Detroit	42.331685	-83.047924	1	0	
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The data in the preview has been truncated due to size limits.

Extract Table Using Examples

LoadTransform DataCancel

## Select row and columns:

Nest to choose the columns are,

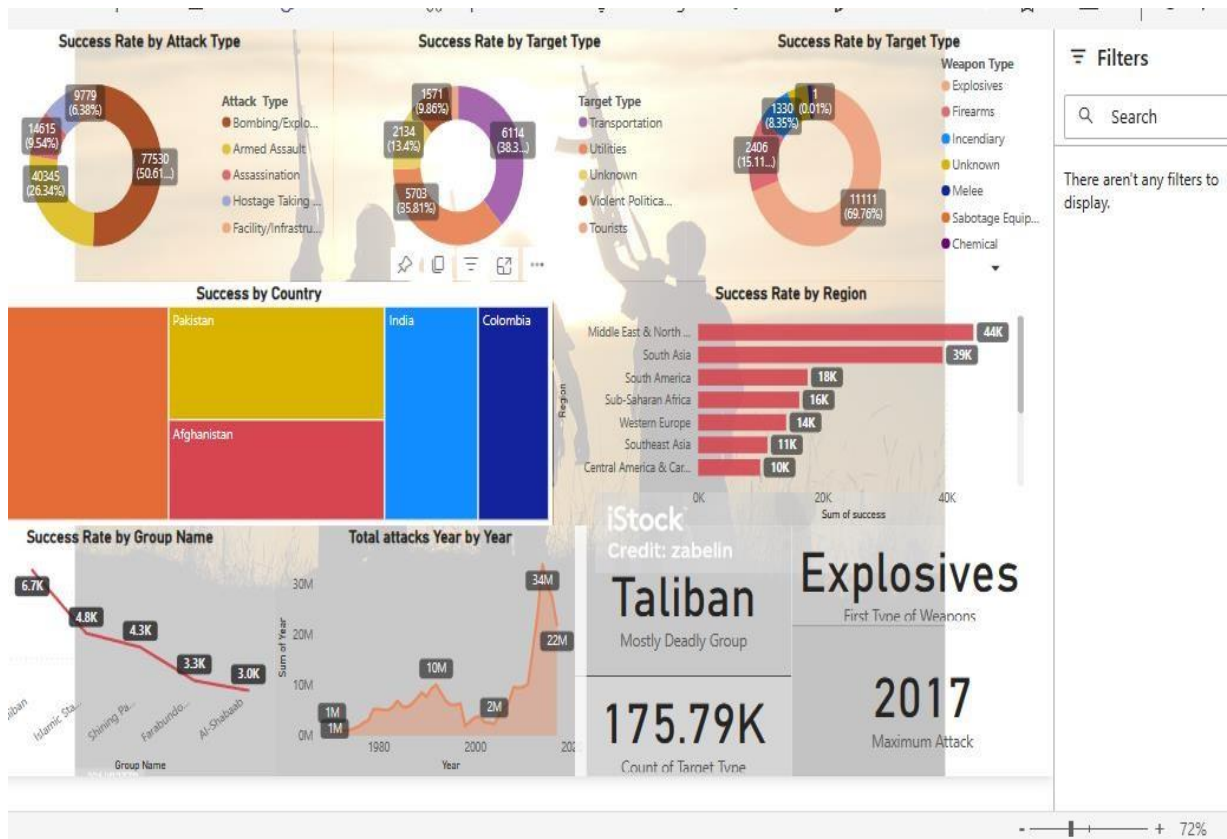
- Country
- Target type
- Year
- Region
- Attack type
- Target Nationality
- Group Name
- Success rate
- Weapons type

These are the relationship between global terrorism in dashboard.

## Dashboard

### The relationships between

- **Success rate and attack Type**
- **Success rate and target Type**
- **Success rate and region**
- **Success rate and country**
- **Total attack Year by Year**
- **Success rate and weapons type**



## CONCLUSION

Cooperativism, a movement that has been in existence since the 19th century, demands a new ideological, democratic and collective approach. As we reflect on this global situation, let us draw some conclusions:

- Uniqueness of Cooperativism: Cooperativism cannot be eradicated by law or economic incentives alone. The concept would most likely continue to exist in this global environment. Cooperativism is a social and political movement that is intelligent and effective in addressing the collective economic and social challenges.
- Long-term Co-operation: While cooperativists may succeed in drawing attention to the political and religious agendas, the global movement is still in its infancy. Co-operatives are still divided, and the co-operative movement is still in its infancy.
- Vigilance and Resilience: We must remain vigilant, resilient, and committed to safeguarding the movement against the forces of repression and reaction. BQ addresses the root causes, promotes education, and fosters the development of the movement towards a world where cooperativism is the norm.



## FUTURE SCOPE

The right time scope or global citizenship is a critical component that requires comprehensive strategies and international cooperation. Hence, it is some key points to consider:

Global Programme on the Promotion and Strengthening of Citizenship (2022- 2027):

- The United Nations Office on the Rights of Children (UNOKC) has launched a **Global Programme** with a mission to **effectively promote citizenship**.
- The programme aims to support **Member States** in their efforts to promote and strengthen citizenship through national strategies, policies, and legal measures.
- It emphasizes the safety and protection of people, ensuring that no one is left behind.
- The programme builds upon the success of UNOKC's previous programme, which strengthened the legal regime against citizenship from 2008 to 2022.
- Key outcomes include increased adherence to international legal frameworks, national citizenship measures, and effective civil justice responses.

Emerging Key Themes:

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- **Demogíapkie pícssuís:** Pop"latio→ gíowtk, migíatio→, a→d "íba→ izatio→ ca→ stíai→ ícso"íccs a→d lead to social te→sio→s.
- **E→ :íio→ mc→ tal degíadatio→ :** Climate cka→ gc, → at"íal disasteís, a→d ícso"ícc scaícitQ maQ co→tíib"te to i→stabilitQ.
- **Democíatic íc→ckmc→t:** Eíosio→ or democíatic i→stit"tio→s ca→ cícate gíic:a→ccs a→d r"cl íadicalizatio→.

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LINK

<https://github.com/Abilatha18/Global-terriosm-dataset-analysis/upload>

