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CONTENT

-01- PLANNING

-04-

ANALYSIS AND FINDINGS

WHAT DO WE FIND?

PHASES OF PLANNING RESEARCH

-02- METHODOLOGY

-05- CONCLUSION

METHOD OF EXECUTION

-03- DESIGN AND DEVELOPMENT

-- REFERENCES

DESIGN PHASES ARE IMPORTANT







CHAPTER 1: PLANNING

INTRODUCTION

In the past, there has generally been a lack of empirical data and statistical analysis in the study of terrorism. This is mostly because it is challenging to find reliable data on global terrorism (LaFree, 2015). Global terrorism is an important public interest that can directly affect public safety. Based on Vajjhala et. al (2015), terrorism should be defined as a politically motivated tactic involving the threat or use of force or violence in which the pursuit of publicity plays a significant role. On a global scale, there is an ever-growing number of terrorist events that happen around the world since 1970 which have resulted in a great amount of death, injuries, and property damage. The terrorist attack imposed a significant cost on the economy of the affected country. An immediate effect of the terrorist attack was a dramatic increase in uncertainty and apprehension in financial markets. Therefore, research must be done to identify issues of global terrorism.

ISSUES

The act of global terrorism would widely affect the behaviours of investors or business owners, as it induces them to move out of riskier assets into short-term assets such as cash and gold (Saxton, 2002). Besides that, the policymaker needs to plan a fair policy that will help the country to gain stability in terms of political, economic, and security. Lastly, tourists are exposed to the risk of losing their life and family members due to unexpected events that occur without acknowledging ongoing conflicts in the neighbourhood. Hence, as the cumulative event of terrorism increased, there is an urgent need for visualization of the terrorist attack in order to help the public; mainly the policymakers, business owners, and tourists to gain insight into possible changes or attacks that will help to protect their safety.

AIM

Through data visualization, the project aims to gain insight into possible changes or attacks that may affect certain areas in the world based on the dataset collected from Kaggle. Another aim is to design a geological visualization that identifies the threat level of a country. These will encourage the increase of public awareness and assure safety.

RESEARCH QUESTION

- ★ What are the threats that are critical for global terrorism?
- ★ Who are the main target of the attacker?
- ★ What is the relation between the attack that happened and its location?
- ★ Which nationality group has the most victim?
- ★ What is the target and sub target that been attacked by terrorist?

RESEARCH OBJECTIVE

- To collect the data of global terrorism.
- To design a dashboard to visualise the data of global terrorism.
- To analyze the data to get the patterns of a main reason terrorism attack happen.





CHAPTER 2: METHODOLOGY



PROCESS FLOW

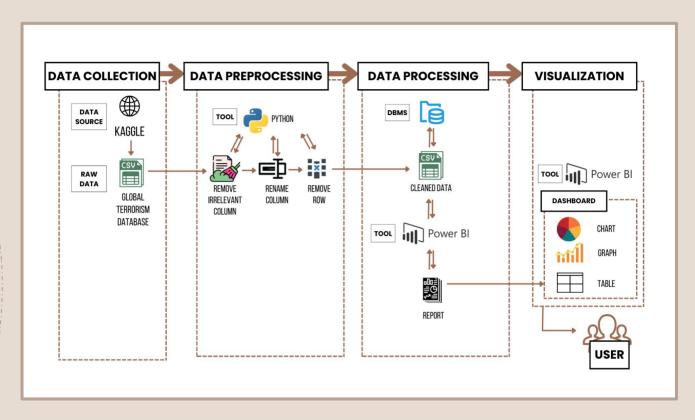


Figure 1: Process Flow of Global Terrorism

Figure 1 shows the process flow started with data collection where the user obtained the data through Kaggle. From Kaggle, the raw data is downloaded and transformed for the next stage. During data preprocessing, using Python, irrelevant columns will be removed, the columns are renamed, and rows that have the most missing values will also be removed. These will help the data analyst to provide a meaningful interpretation. The third stage is data processing. In data preprocessing, the cleaned data is uploaded inside the Power BI database to make significant output. Through visualization, the data analyst created the dashboard to analyze the dataset by including charts, tables, and graphs inside the dashboard. As a result, the user can make inferences through the visualization.

DATA COLLECTION

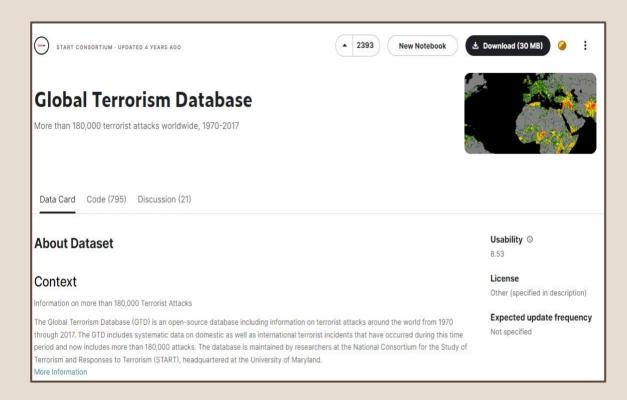


Figure 2: Global Terrorism Database Kaggle

Name: Global Terrorism Database

Source: Kaggle

Description:

- ★ The Global Terrorism Database (GTD) is an open-source database that includes information on terrorist attacks around the world from 1970 to 2017. It also includes systematic data on domestic as well as international terrorist incidents that have occurred during this time period and now includes more than 180,000 attacks. The database is maintained by researchers at the National Consortium for the Study of Terrorism and Responses to Terrorism (START), headquartered at the University of Maryland.
- ★ There are 135 attribute and 181, 692 rows.

USER REQUIREMENT

Table 1: User Requirement of Global Terrorism

FUNCTIONAL

NON-FUNCTIONAL

The dashboard will show the frequency of attack using map.

Reliability

The dashboard must be reliable to the users. All data should reach the user without error.

The dashboard will show the total attack based on the type of attack.

Usability

The dashboard must be user-friendly and to easy understand and use. The user should be able to navigate and use the dashboard at a minimal level with or without training.

The dashboard will shows the It is expected for this dashboard hierarchy of each target and target subtype.

Portability

to be run through the internet. The dashboard is expected to run on Windows and Mac OS.

The dashboard will show the user the number of mortality by a understand and use. The user certain terrorist group.

Usability

dashboard The he must user-friendly and easy to should be able to navigate and use the dashboard at a minimal level with or without training.

Table 1: User Requirement of Global Terrorism (Cont.)

FUNCTIONAL

NON-FUNCTIONAL

The dashboard will show the attack type that each attack group uses.

Performance: Response Time

The dashboard returns the results will proceed faster in less than 10 seconds and the performance changes with higher workloads.

The dashboard will show the total number of successful attacks of a certain attack group.

LIST OF ATTRIBUTES

Table 2: List of Attributes

NO	ATTRIBUTE	NO	ATTRIBUTE	NO	ATTRIBUTE
1.	eventid	11.	approxdate	21.	country_txt
2.	iyear	12.	extended	22.	region
3.	imonth	13.	resolution	23.	region_txt
4.	iday	14.	country	24.	provstate
5.	city	15.	summary	25.	alternative_txt
6.	latitude	16.	crit1	26.	multiple
7.	longitude	17.	crit2	27.	success
8.	specificity	18.	crit3	28.	suicide
9.	vicinity	19.	doubtterr	29.	attacktype1
10.	location	20.	alternative	30.	attacktype1_txt

From Table 2, it shows some of the attributes for this dataset. Other attributes can be seen in the appendix.

DATA DESCRIPTION AND DATA DICTIONARY

Table 3: Data Description and Data Dictionary

NO.	ATTRIBUTE	DESCRIPTION	DATA TYPE
1.	Year	The year in which the incident occurred.	Numeric
2.	Month	The number of the month in which the incident occurred.	Numeric
3.	Day	The numeric day of the month on which the incident occurred.	Numeric

From Table 3, it shows some of the data dictionary and description. The continues of data dictionary and description can be seen in the appendix.

DATA CLEANING

The dataset consists of a huge number of attributes. In order to further reduce the unnecessary attribute, any attribute that is deemed irrelevant will be removed using Excel. Thus, a total of 108 attributes are removed in this process. The reason why this list of attributes is irrelevant is that:-

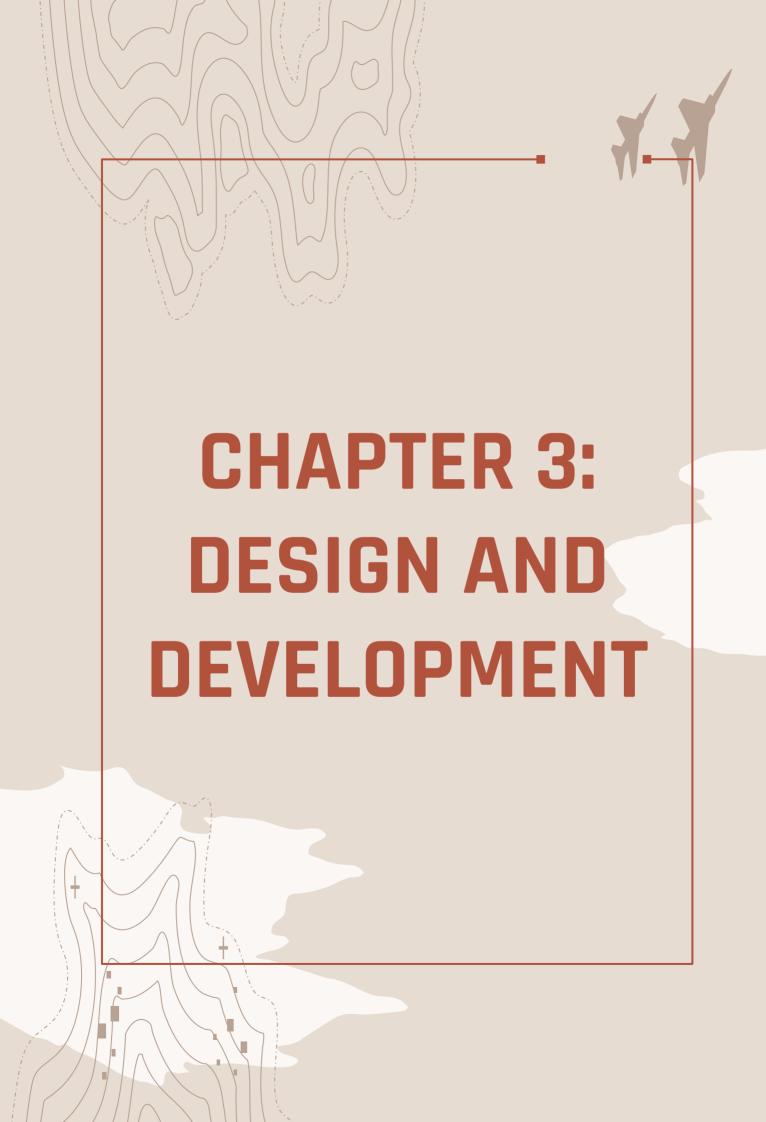
- 1. The record of the attributes contains a lot of null data.
- 2. The record of the attributes contains gibberish data that is inaccurate.
- 3. The record of attributes contains repetitive data that exist in other attributes.
- 4. The record of attributes does not align with the project's objective.

DATA PREPARATION

Data preparation is the process of preparing raw data so that it is suitable for further processing and analysis. Key steps include collecting, cleaning, and labeling raw data into a form suitable for exploring and visualizing the data. The step taken to complete data preparation is:

- 1. Rename attribute.
- 2. Remove empty row based on success attribute.
- 3. Change numerical to nominal value for property, success and suicide.

Remove outlier and extreme value, and Discretize Number_Of_Kill attribute for **experiment purpose**.



SYSTEM ARCHITECTURE

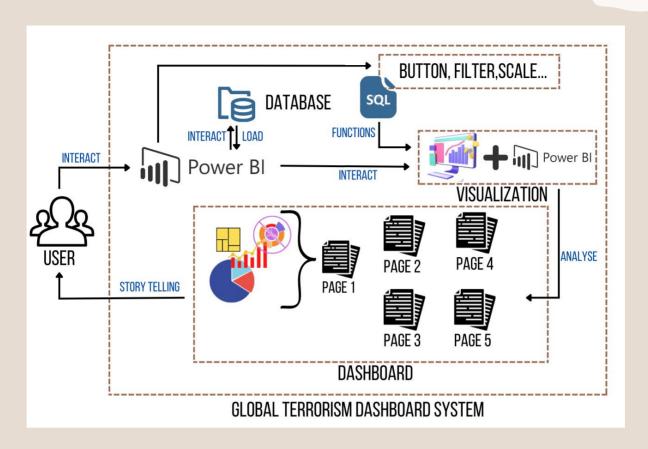


Figure 3: System Architecture of The System

Figure 3 shows the architecture of the system. It starts with the user interacting with the system, giving input by clicking the button, filter, and other interaction buttons which will trigger the SQL function. Then, the system will send the information to Power BI which Power BI will retrieve related data from the database. The information that is retrieved will then be used together with the query from the SQL button to produce the visualization. After the analysis has been done, the visualization that has been processed will be displayed accordingly on the dashboard. Users can also navigate through different pages of visualization. Each page contains the visualization from the data analysis. Then, the user can read the dashboard and proceed with storytelling from the information in the dashboard.

CHART TYPE

Table 4: Chart type used in dashboard

Map Chart

A map chart is used to display geographic data by value or category. This chart will zoom in to a place when the data is selected and can move it by clicking and dragging. The map chart is the most important chart as it will display all the locations of accidents that happen in the terrorism dataset.



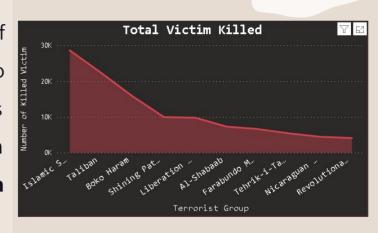


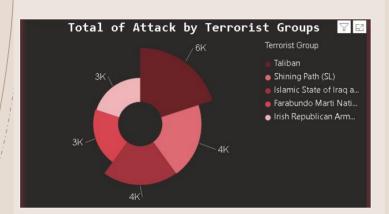
Sunburst Chart

The sunburst chart is also called a multi-level pie chart, radial treemap, and ring chart, which is used to visualize the typical hierarchical data. It consists of inner circles surrounded by rings of deeper hierarchy levels. The angle of each part is divided equally under its parent node. It shows the hierarchy of each target and target subtype.

Area Chart

Area charts emphasize the magnitude of change over time and can be used to draw attention to the total value across a trend. It will provide the user with the number of mortality by a certain terrorist group.



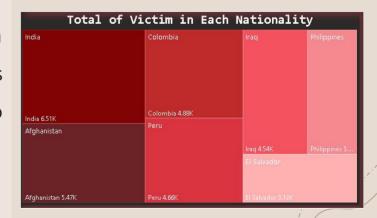


Aster Plot

The Aster Plot is a twist on a standard donut chart. An Aster Plot can be shown with multiple categories and two measures controlling the depth and width of each category. This graph will give the frequency of attacks from a certain group of terrorists.

Treemap

Treemap visualizes the hierarchy of data in nested rectangles. Hierarchy levels are displayed from larger rectangles to smaller ones. It will provide the nationality of the victims.



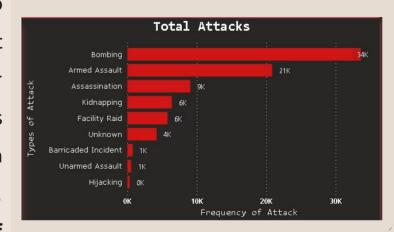
Total of Property Damage by Country A Country India India Srinagar 318 Count of Prop... Afghanistan 6196 Colombia 5112 Amritsar 93

Decomposition Tree Graph

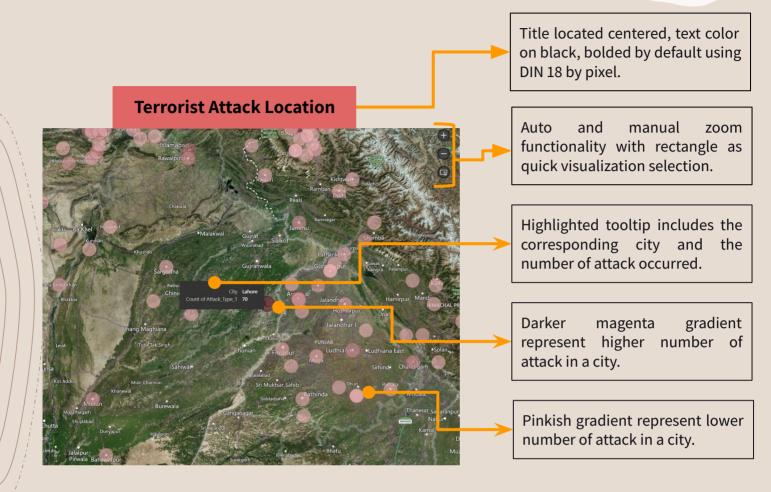
Decomposition Tree graph can be used to decompose hierarchical data that is presented in an aggregated manner. To analyze the relationship between different attributes in a data that is hierarchical, drill-down and drill-through are two of the most techniques common that are employed for data exploration as well as use-cases like root cause analysis. Thus, for finding the total of property damage by country and city using decomposition tree graph will be helpful.

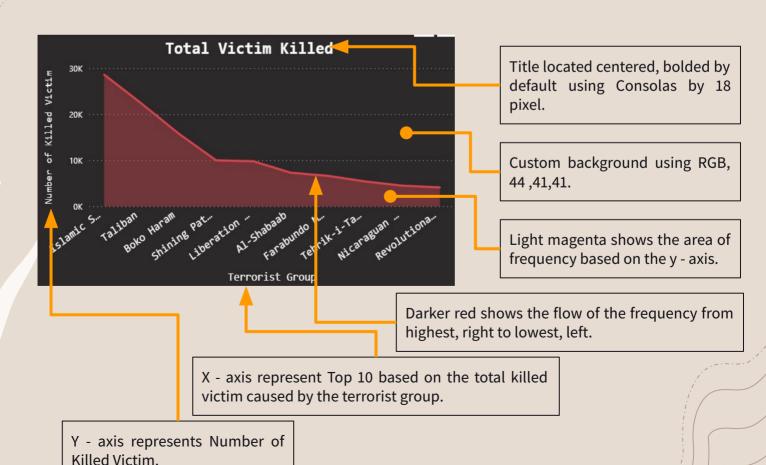
Column Bar Chart

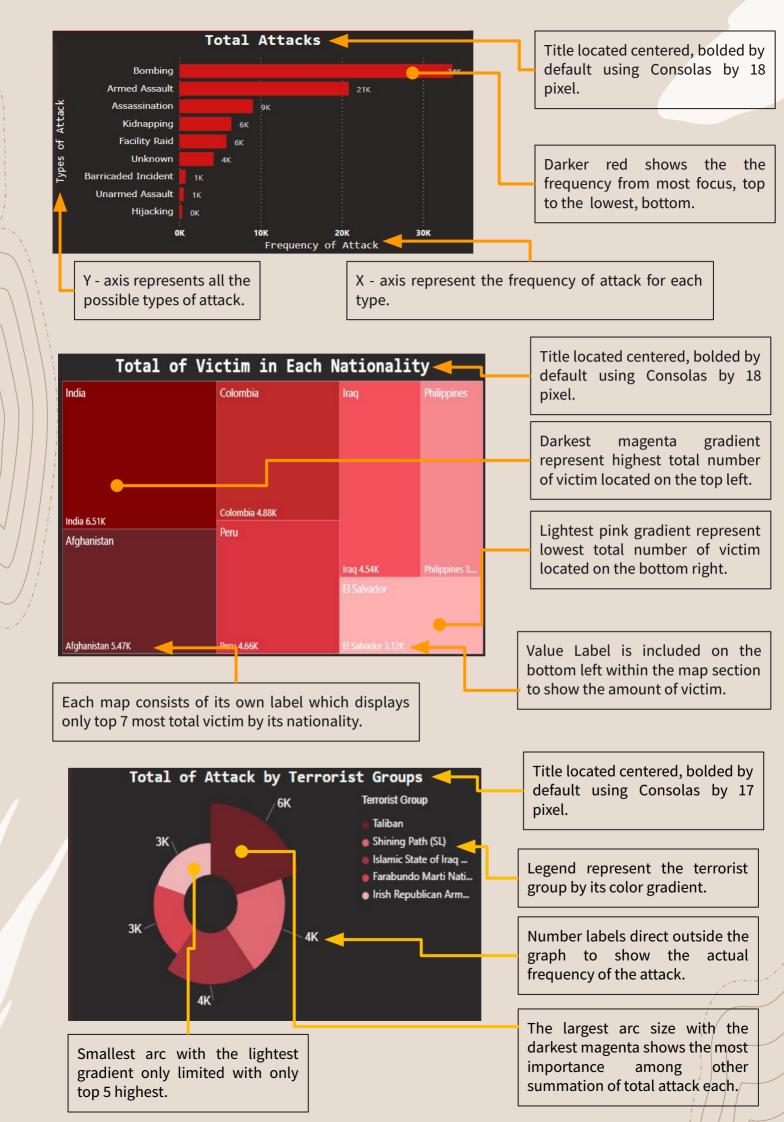
Column bar chart can be used to display one or multiple categories. It can represent data with rectangular bars, where the size of the bar is proportional to the magnitude of data values. This chart represent the total amount of attack for each type of attack.



VISUALIZATION DESIGN





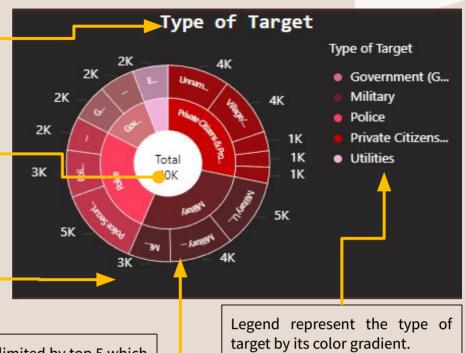


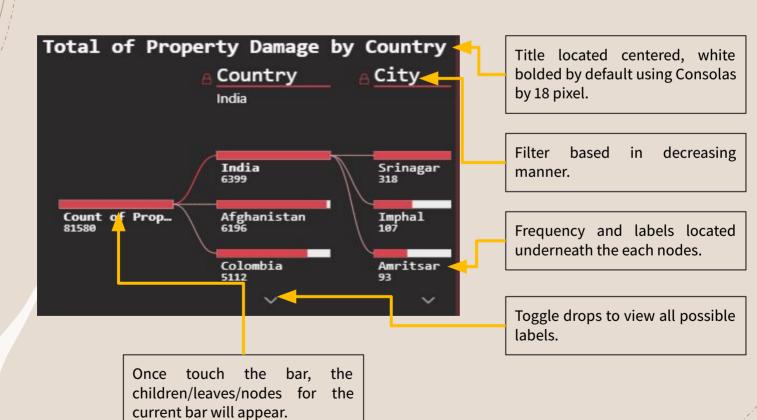
Title located centered, bolded by default using Consolas by 17 pixel.

The overall total target located at the center of the graph, used to traverse back once zoomed in.

Number labels direct outside the graph to show the actual frequency of the target.

Color labelled only limited by top 5 which does not represent whether the frequency is higher or not.





CHAPTER 4: ANALYSIS AND FINDING

Correlation Between the Number of Killed Victims by Terrorist Group and Total of Victims in Each Nationality

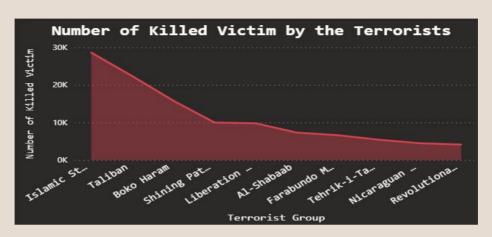


Figure 4: Area Chart for Total Victim Killed

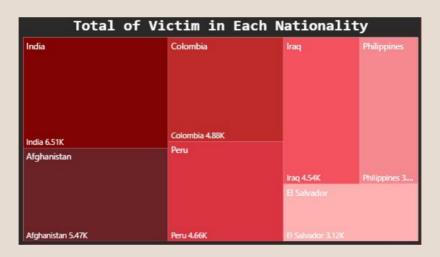


Figure 5: Tree Map for Total of Victim in Each Nationality

This visualization shows an overview on the number of killed victims by terrorist groups and the nationality of the victims. In connection with that, Figure 4 demonstrates the total number of killed victims by terrorist groups such as the Islamic State of Iraq and the Levant (ISIL), Taliban, Boko Haram, Shining Path (SL), Liberation Tigers of Tamil Eelam (LTTE) and other groups. The area chart is used to visualize the number of killed victims by these terrorist groups.

In this area chart, it is apparent that ISIL has the highest number of victims killed, followed by the Taliban being the second highest, and the third highest is Boko Haram. Next, the tree map depicted in Figure 5 is used to visualize the total number of victims in each nationality. In this map, the larger rectangular and the darker colours represent the highest total of victims sorted by nationality of the victims.

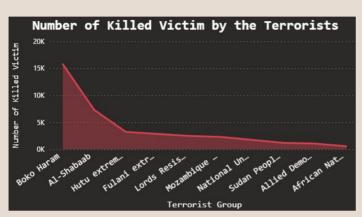


Figure 6: Total Victim Killed in Sub-Saharan Africa region

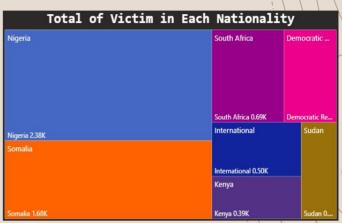


Figure 7: Nationality of Total Victim in Sub-Saharan Africa region

Figure 6 and Figure 7 above present the correlation between the number of killed victims by terrorist groups and the nationality of the victims. When the region is focused on Sub-Saharan Africa, it is observed from the area chart in Figure 6, which terrorist groups that are actively attacking the victims living in that region as well as the number of victims killed in the attacks. Meanwhile, Figure 7 shows several of the nationality of the victims killed in the attacks. As seen in the treemap, some of the victims' nationalities in the Sub-Saharan Africa region are Nigerians, Somalis, South Africans, and others nationalities. The largest rectangular, which shows the Nigerian victims, represents the highest total of victims for that nationality. Thus, it is found that the number of killed victims by terrorist groups correlates with the nationality of the victims. This information can be used to identify and observe which nationality seems to usually be the main target of the attackers, and from which terrorist groups.

Correlation Between Frequency Of Attack Type And Total Attack By Terrorist Group

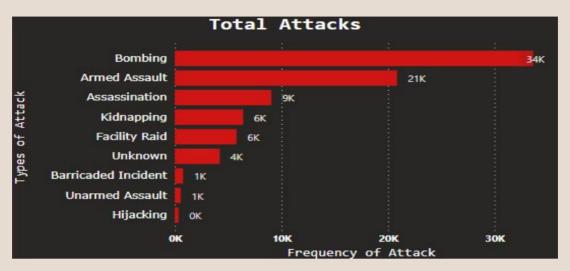


Figure 8: Frequency of Attack Type

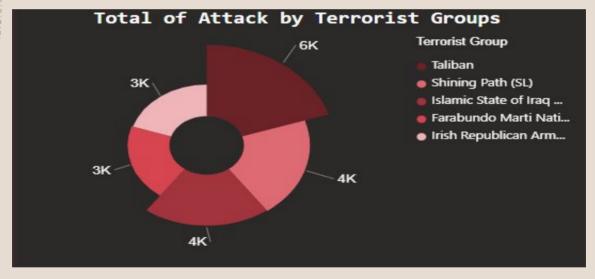


Figure 9: Total Attack by Terrorist Group

The visualization shows the correlation between the frequency of attack type and total attacks by terrorist groups. Based on Figure 8, it shows that the frequency of attack type uses a column bar chart for visualization. The higher the type of attack, the higher the frequency of attack.

Meanwhile, based on Figure 9, the total of attacks by terrorist groups uses the Aster Plot for visualization. The visualization only focused on five terrorist groups with the most attacks and distinguish them using a different colour.

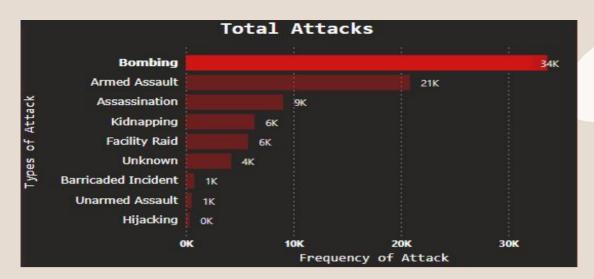


Figure 10: Frequency of Attack Type

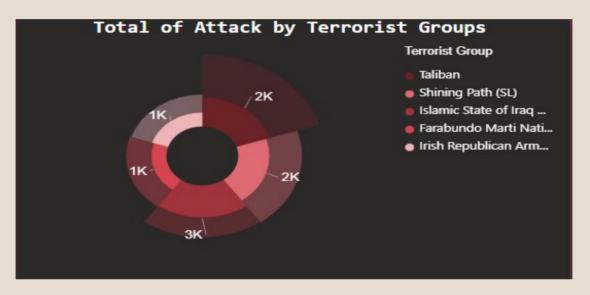


Figure 11: Total Attack by Terrorist Group

Figure 10 and Figure 11 show the correlation between the frequency of attack type and total attacks by the terrorist group. Based on Figure 10, the type of attack for bombing is highlighted to focus on it. When a type of attack is focused on, it will show the total attack of bombings for the terrorist group with the top five highest total of attacks. For example, in Figure 11, the Islamic State of Iraq and the Levant (ISIL) have the highest attack of bombings with more than three thousand attacks. Moreover, the visualization also shows that ISIL frequently uses bombing types of attacks for more than half of the attacks done by the group, and only a quarter of the attacks are done using another type of attack. Meanwhile, the Taliban with the highest total of attacks, only have more than two thousand for bombing type of attack.

Correlation Between Total of Property Damage by Country and Terrorism Attack Location



Figure 12: Map Graph on Terrorism Attack Location

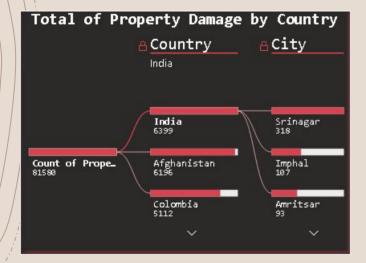


Figure 13: Decomposition Tree Graph on Total of Property Damage by Country

The visualization shows the correlation between the total of property damaged in each country and city and the attack location. Figure 13, decomposition tree graph shows the total of property damaged by terrorism in each country and city.

The root of the decomposition tree graph will show the total property damaged in each country. The child leaves shows the city's total number of property damages. Meanwhile, Figure 12 which is the map graph shows the attacks that happen in a certain location. If the frequency of attack in the location is high, the intensity of the red area will be darker. For example, in the filter, if the user chooses Region: Sub-Saharan Africa, the user can see there is a gradient of the colour red which represent the frequency of the attack by the terrorist.



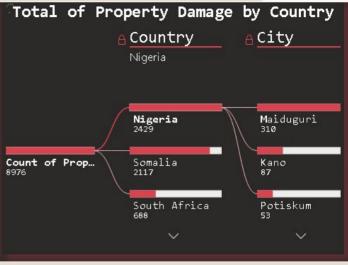


Figure 14: Terrorism Attack in Nigeria

Figure 15: Total of Property Damage in Nigeria

From Figure 14 and Figure 15 above, it can be seen that there is a correlation between the frequency of attack and also the total of property damaged in Maiduguri. For example, on the decomposition treemap, it can be seen that the total number of property damage in Maiduguri is 310, which is the highest in Nigeria (2429 property damage) and from the map graph, we can see that Maiduguri also has the most frequency of red bubbles which indicated Maiduguri is the most frequent attack location by the terrorists. Meanwhile, the city Kano in the map graph only has a few red bubbles indicating the rarity of attacks happening in the place and the property damage shown in the tree graph is only 67. This shows that there is correlation between the number of property damage and attack happening in the exact location. The higher the frequency and intensity of the red, the higher the frequency of attacks on certain locations and the higher the count of property damage made by terrorism.

CHAPTER 5: CONCLUSION

In conclusion, it can be said that no country are free from the threat of terrorism. There is always a chance for a terrorist group to attack a country. Terrorism can have a significant negative impact on a country. For example, it can cause fear and insecurity among the population, disrupt economic activity, damage infrastructure, and lead to loss of life and injuries. Additionally, it can also damage a country's reputation and relationships with other nations. This system aims to help visualize the data of past attack on Global Terrorism. With the help of this system, we hope that it can help government and other defensive organisation body to analyse the attacks of past terrorism cases and tackle the problem with proper preparation.

REFERENCE

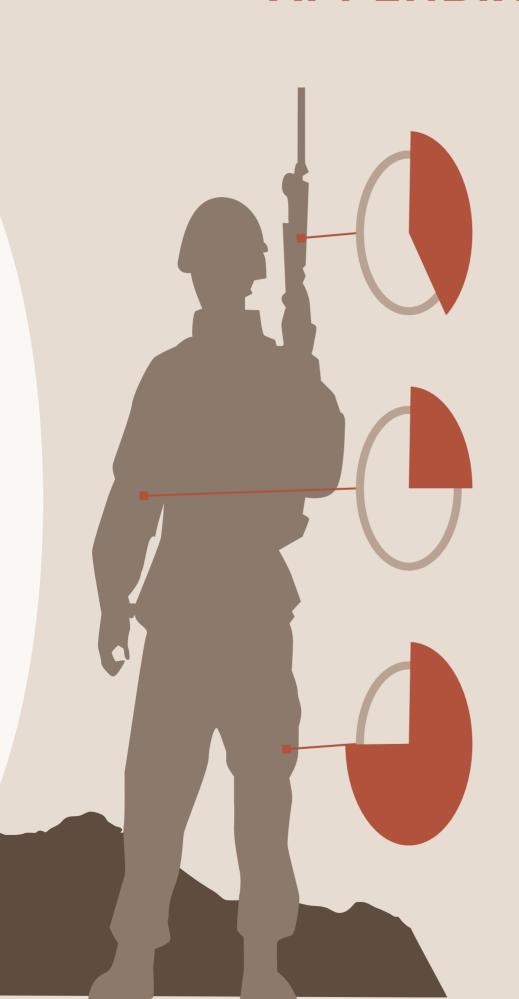
LaFree, G., Dugan, G., & Miller, E. (2015). *Putting terrorism in context:*Lessons from the global terrorism database. Routledge.

Saxton, J., (R-NJ). (2002). The Economic Costs of Terrorism. In *Joint Economic Committee United State Congress*.

https://www.jec.senate.gov/public/_cache/files/79137416-2853-44 0b-9bbe-e1e75d40a79d/the-economic-costs-of-terrorism---may-20 02.pdf

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APPENDIX





LIST OF ATTRIBUTES (Cont.)

Table 2: List of Attributes (Continued)

NO	ATTRIBUTE	NO	ATTRIBUTE	NO	ATTRIBUTE
31.	attacktype2	38.	targsubtype1_txt	45.	targsubtype2
32.	attacktype2_txt	39.	corp1	46.	targsubtype2_txt
33.	attacktype3	40.	target1	47.	natlty2_txt
34.	attacktype3_txt	41.	natlty1	48.	corp2
35.	targtype1	42.	natlty1_txt	49.	target2
36.	targtype1_txt	43.	targtype2	50.	natlty2
37.	targsubtype1	44.	targtype2_txt	51.	natlty2_txt
51.	targtype3	58.	natlty3_txt	65.	motive
52.	targtype3_txt	59.	gname	66.	guncertain1
53.	targsubtype3	60.	gsubname	67.	guncertain2
54.	targsubtype3_txt	61.	gname2	68.	guncertain3
55.	corp3	62.	gsubname2	69.	individual
56.	target3	63.	gname3	70.	nperps
57.	natlty3	64.	gsubname3	71.	nperpcap

Table 2: List of Attributes (Continued)

NO	ATTRIBUTE	NO	ATTRIBUTE	NO	ATTRIBUTE
72.	claimed	79.	claimmode3	86.	weaptype2
73.	claimmode	80.	claimmode3_txt	87.	weaptype2_txt
74.	claimmode_txt	81.	compclaim	88.	weapsubtype2
75.	claim2	82.	weaptype1	89.	weapsubtype2_txt
76.	claimmode2	83.	weaptype1_txt	90.	weaptype3
77.	claimmode2_txt	84.	weapsubtype1	91.	weaptype3_txt
78.	claim3	85.	weapsubtype1_txt	92.	weapsubtype3
93.	weapsubtype3_txt	100.	nkillus	107.	propextent_txt
94.	weaptype4	101.	nkillter	108.	propvalue
95.	weaptype4_txt	102.	nwound	109.	propcomment
96.	weapsubtype4	103.	nwoundus	110.	ishostkid
97.	weapsubtype4_txt	104.	nwoundte	111.	nhostkid
98.	weapdetail	105.	property	112.	nhostkidus
99.	nkill	106.	propextent	113.	nhours

Table 2: List of Attributes (Continued)

NO	ATTRIBUTE	NO	ATTRIBUTE	NO	ATTRIBUTE
114.	ndays	122.	ransomnote	130.	dbsource
115.	divert	123.	hostkidoutcome	131.	INT_LOG
116.	kidhijcountry	124.	hostkidoutcome_t xt	132.	INT_IDEO
117.	ransom	125.	nrealeased	133.	INT_MISC
118.	ransomamt	126.	addnotes	134.	INT_ANY
119.	ransomamtus	127.	scite1	135.	related
120.	ransompaid	128.	scite1		
121.	ransompaidus	129.	scite1		

DATA DESCRIPTION & DATA DICTIONARY (Cont.)

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
4	Extended	1 = "Yes". The duration of an incident extended more than 24 hours. 0 = "No". The duration of an incident extended less than 24 hours.	Numeric
5	Country_txt	The country name	Nominal
6	Region_txt	The region in which the incident occurred.	Nominal
7	Provstate	Name (at the time of event) of the 1st order subnational administrative region.	Nominal
8	City_txt	Name of the city, village, or town in which the incident occurred.	Nominal
9	Latitude	The latitude of the city in which the event occurred.	Numeric
10	Longitude	The longitude of the city in which the event occurred.	Numeric
11	Suicide	1 = "Yes". The incident was a suicide attack. 0 = "No". There is no indication that the incident was a suicide attack.	Numeric
12	attacktype3_txt	The general method of attack and broad class of tactics used.	Nominal

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
13	attacktype2_txt	The general method of attack and broad class of tactics used for second attack.	Nominal
14	attacktype3_txt	The general method of attack and broad class of tactics used for third attack.	Nominal
15	targtype1_txt	The general type of target/victim	Nominal
16	targsubtype1_txt	The more specific target category	Nominal
17	Property	Property Damage 1 = "Yes" .The incident resulted in property damage. 0 = "No". The incident did not result in property damage9 = "Unknown". It is unknown if the incident resulted in property damage.	Numeric
18	Target1	The specific person, building, installation that was targeted and/or victimized.	Nominal
19	Corporation1	This is the name of the corporate entity or government agency that was targeted. If the element targeted is unspecified, "Unknown" is listed.	Nominal
20	Nationality1_txt	The nationality of the target that was attacked.	Nominal /

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
21	Gname	The name of the group that carried out the attack.	Nominal
22	Number_Of_Kill	The number of total confirmed fatalities for the incident.	Numeric
23	Success	Success of a terrorist strike. 1 = "Yes". The incident was a success attack. 0 = "No". There is no indication that the incident was a success attack.	Numeric
24.	eventid	A 12-digit Event ID system. First 8 numbers – date recorded "yyyymmdd". Last 4 numbers – sequential case number for the given day (0001, 0002 etc).	Numeric
25	approxdate	The approximate date of the incident.	Nominal
26	resolution	This field only applies if "Extended Incident?" is "Yes" and records the date in which the incident was resolved.	Numeric
27	county	The country code.	Numeric
28	region	The region code is based on 12 regions.	Numeric
29	specificity	This field identifies the geospatial resolution of the latitude and longitude fields. The most specific resolution uniformly available throughout the dataset is the center of the city, village, or town in which the attack occurred.	Nominal

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
25	approxdate	The approximate date of the incident.	Nominal
26	resolution	This field only applies if "Extended Incident?" is "Yes" and records the date in which the incident was resolved.	Numeric
27	county	The country code.	Numeric
28	region	The region code is based on 12 regions.	Numeric
29	specificity	This field identifies the geospatial resolution of the latitude and longitude fields. The most specific resolution uniformly available throughout the dataset is the center of the city, village, or town in which the attack occurred.	Nominal
30	vicinity	The incident occurred in the immediate vicinity of the city in question. 1 = "Yes" The incident occurred in the immediate vicinity of the city in question. 0 = "No" The incident in the city itself.	Nominal
31	location	The exact location of the incident happened.	Nominal
32	summary	The summarization of the incident.	Nominal
33	crit1	The violent act must be aimed at attaining a political, economic, religious, or social goal. 1 = "Yes" The incident meets Criterion 1. 0 = "No" The incident does not meet Criterion 1 or no indication.	Nominal

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
34	crit2	To satisfy this criterion there must be evidence of an intention to coerce, intimidate, or convey some other message to a larger audience (or audiences) than the immediate victims. 1 = "Yes" The incident meets Criterion 2. 0 = "No" The incident does not meet Criterion 2 or no indication.	Nominal
35	crit3	The action is outside the context of legitimate warfare activities, insofar as it targets non-combatants 1 = "Yes" The incident meets Criterion 3. 0 = "No" The incident does not meet Criterion 3.	Nominal
36	doubtterr	In certain cases there may be some uncertainty whether an incident meets all of the criteria for inclusion. 1 = "Yes" There is doubt as to whether the incident is an act of terrorism. 0 = "No" There is essentially no doubt as to whether the incident is an act of terrorism.	Nominal
37	crit3	The action is outside the context of legitimate warfare activities, insofar as it targets non-combatants 1 = "Yes" The incident meets Criterion 3. 0 = "No" The incident does not meet Criterion 3.	Nominal

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
38.	alternative	This variable applies to only those cases coded as "Yes" for "doubtterr" This variable identifies the most likely categorization of the incident other than terrorism through the code.	Nominal
39	multiple	In those cases where several attacks are connected, but where the various actions do not constitute a single incident 1 = "Yes" The attack is part of a multiple incident. 0 = "No" The attack is not part of a multiple incident.	Nominal
40	targtype1	The code of general type of target/victim.	Numeric
41	targsubtype1	The code of target subtype variable captures the more specific target category and provides the next level of designation for each target type.	Numeric
42	targtype2	Refer targtype1.	Numeric
43	targsubtype2	Refer targsubtype1.	Numeric
44	targsubtype3	Refer targsubtype1.	Numeric
45	targtype3	Refer targtype1.	Numeric

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
46	targtype2_txt	Refer targtype1_txt.	Nominal
47	targsubtype2_txt	Refer targsubtype1_txt.	Nominal
48	targsubtype3_txt	Refer targsubtype1_txt.	Nominal
49	targtype3_txt	Refer targtype1_txt.	Nominal
50	corp2	Refer corp1.	Text
51	target2	Refer target1.	Text
52.	natlty2_txt	Refer natlty1.	Nominal
53.	targtype3	Refer targtype1.	Nominal
54.	targtype3_txt	Refer targtype1_txt.	Nominal
55.	targsubtype3	Refer targsubtype1.	Nominal
56.	targsubtype3_txt	Refer targsubtype1_txt.	Nominal
57.	corp3	Refer corp1.	Text
58.	target3	Refer target1.	Text
59.	natlty3	Refer target1.	Nominal
60.	natlty3_txt	Refer natlty1.	Nominal

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
61.	gsubname	Additional details about groups that carried out the attack like factions.	Text
62.	gname2	Refer gname.	Text
63.	gsubname2	Refer gsubname.	Text
64.	gname3	Refer gname.	Text
65.	gsubname3	Refer gsubname.	Text
66.	motive	The motive of the group that lauch the incident.	Text
67.	guncertain1	The certainty that the gun is involved. 0= No gun. 1= Have a gun.	Numeric
68.	guncertain2	Refer guncertain1.	Numeric
69.	guncertain3	Refer guncertain1.	Numeric
70.	individual	An attack that is done by an individual. 0 = no individual attack. 1 = individual attack.	Numeric
71.	nperps	The total number of terrorists participating in the incident.	Numeric
72.	nperpcap	This field records the number of perpetrators taken into custody. "-99" or "Unknown" appears when there is evidence of capture, but the number is not reported.	Numeric

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
73.	claimed	This field is used to indicate whether a group or person(s) claimed responsibility for the attack. 1 = "Yes" A group or person claimed responsibility for the attack. 0 = "No" No claim of responsibility was made.	Nominal
74.	claimmode	This records code of one of 10 modes used by claimants to claim responsibility and might be useful to verify authenticity, track trends in behavior. 1 = Letter 2 = Call (post-incident) 3 = Call (pre-incident) 4 = E-mail 5 = Note left at scene 6 = Video 7 = Posted to website, blog, social media 8 = Personal claim 9 = Other 10 = Unknown	Nominal
75.	claimmode_txt	This records one of 10 modes used by claimants to claim responsibility and might be useful to verify authenticity, track trends in behavior.	Nominal
76.	claimed2	Refer to claimed1.	Numeric
77.	claimmode2	Refer to claimmode1.	Nominal
78	claimmode2_txt	Refer to claimmode1_txt.	Nominal
79.	claimed3	Refer to claimed1.	Nominal
80.	claimmode3	Refer to claimmode1.	Nominal
81.	claimmode3_txt	Refer to claimmode1_txt.	Nominal

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
82.	compclaim	This field is used to indicate whether more than one group claimed separate responsibility for the attack. 1 = "Yes" There are competing claims of responsibility for the attack. 0 = "No" There are no competing claims of responsibility for the attack. -9= "Unknown No indication of competing claims. [NULL] Not applicable (e.g., Perpetrator is unknown; only one perpetrator reported; or no claim of responsibility reported)	Nominal
83.	weaptype1	Up to four weapon types are recorded for each incident. This field records the general type of weapon used in the incident. 1 = Biological 2 = Chemical 3 = Radiological 4 = Nuclear 5 = Firearms 6 = Explosives 7 = Fake Weapons 8 = Incendiary 9 = Melee 10 = Vehicle 11 = Sabotage Equipment 12 = Other 13 = Unknown	Nominal
84.	weaptype1_txt	General type of weapon used in the incident.	Nominal
85.	weapsubtype1	More specific code of value for most of the Weapon Types.	Nominal
86.	weapsubtype1_tx t	More specific value for most of the Weapon Types.	Nominal
87.	weaptype2	Refer "weaptype1".	Nominal
88.	weaptype2_txt	Refer weaptype1_txt.	Nominal
89.	weapsubtype2	Refer "weapsubtype1".	Nominal
90.	weapsubtype2_tx	Refer weapsubtype1_txt.	Nominal //

Table 3: Data Description & Data Dictionary (Continued)

N	0	ATTRIBUTE	DESCRIPTION	DATA TYPE
9:	1.	weaptype3	Refer "weaptype1".	Nominal
92	2.	weaptype3_txt	Refer to weaptype1_txt.	Nominal
9:	3.	weapsubtype3	Refer "weapsubtype1".	Nominal
94	4.	weapsubtype3_tx t	Refer weapsubtype1_txt.	Nominal
9.	5.	weaptype4	Refer "weaptype1".	Nominal
91	6.	weaptype4_txt	Refer to weapontype1_txt.	Nominal
9	7.	weapsubtype4	Refer "weapsubtype1".	Nominal
98	8.	weapsubtype4_tx t	Refer weapsubtype1_txt.	Nominal
99	9.	weapdetail	This field notes any pertinent information on the type of weapon(s) used in the incident.	Text
10	0.	nkillus	The number of U.S. citizens who died as a result of the incident	Numeric
10)1.	nkillter	Limited to only perpetrator fatalities, this field follows the conventions of the "Total Number of Fatalities" field described above.	Numeric
10)2.	nwound	Total Number of Injured	Numeric
10)3.	nwoundus	Number of US Injured	Numeric
10)4.	nwoundte	Number of Perpetrators Injured	Numeric

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
106.	propextent	If "Property Damage?, to what extent? The code: 1 = Catastrophic (likely ≥ \$1 billion) 2 = Major (likely ≥ \$1 million but < \$1 billion) 3 = Minor (likely < \$1 million) 4 = Unknown	Nominal
107.	propextent_txt	If "Property Damage?, to what extent?	Nominal
108.	propvalue	Value of Property Damage (in USD)	Numeric
109.	propcomment	Property Damage Comments. List specific details about the property that was damaged in an attack	Text
110.	ishostkid	Whether or not the victims were taken hostage 1 = "Yes" The victims were taken hostage or kidnapped. 0 = "No" The victims were not taken hostage or kidnapped. -9 = "Unknown" It is unknown if the victims were taken hostage or kidnapped.	Nominal
111.	nhostkid	Total Number of Hostages / Kidnapping Victims	Numeric
112.	nhostkidus	Number of US Hostages / Kidnapping Victims	Numeric
113.	nhours	Hours of Kidnapping / Hostage Incident	Numeric
114.	ndays	Days of Kidnapping / Hostage Incident	Numeric
115.	divert	Country That Kidnappers/Hijackers Diverted To	Text
116.	kidhijcountry	If the "Attack Type" is "Hostage Taking (Kidnapping)" or "Hijacking" then this field lists the country in which the incident was resolved or ended.	Text
117.	ransom	Ransom Demanded 1 = "Yes" The incident involved a demand of monetary ransom. 0 = "No" The incident did not involve a demand of monetary ransom. -9 = "Unknown" It is unknown if the incident involved a demand of monetary ransom. [NULL] Not applicable	Nominal

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
118.	ransomamt	Total Ransom Amount Demanded	Numeric
119.	ransomamtus	Ransom Amount Demanded from US Sources	Numeric
120.	ransompaid	Total Ransom Amount Paid	Numeric
121.	ransompaidus	Ransom Amount Paid by US Sources	Numeric
122.	ransomnote	This field is used to record any specific details relating to a ransom that are not captured in the other fields.	Text
123.	hostkidoutcome	Code of Kidnapping/Hostage Outcome 1 = Attempted Rescue 2 = Hostage(s) released by perpetrators 3 = Hostage(s) escaped (not during rescue attempt) 4 = Hostage(s) killed (not during rescue attempt) 5 = Successful Rescue 6 = Combination 7 = Unknown	Nominal
124.	hostkidoutcome_ txt	Kidnapping/Hostage Outcome	Nominal
125.	nreleased	Number Released/ Escaped/ Rescued	Numeric
126.	addnotes	Capture additional relevant details about the attack	Text
127.	scite1	First Source Citation	Text
128.	scite2	Second Source Citation	Text
129.	scite3	Third Source Citation	Text
130.	dbsource	Data collection Source.	Text

Table 3: Data Description & Data Dictionary (Continued)

NO	ATTRIBUTE	DESCRIPTION	DATA TYPE
131.	INT_LOG	Comparison between the nationality of the perpetrator group and the location of the attack. 1 = "Yes" The attack was logistically international; 0 = "No" The attack was logistically domestic -9 = "Unknown"	Nominal
132.	INT_IDEO	Comparison between the nationality of the perpetrator group and the nationality of the target(s)/victim(s) 1 = "Yes" The attack was ideologically international; 0 = "No" The attack was ideologically domestic; -9 = "Unknown"	Nominal
133.	INT_MISC	Comparison between the location of the attack and the nationality of the target(s)/victim(s) 1 = "Yes" The attack was miscellaneous international; 0 = "No" The attack was miscellaneous domestic; -9 = "Unknown"	Nominal
134.	INT_ANY	International- Any of the above 1 = "Yes" The attack was international on any of the dimensions described above (logistically, ideologically, miscellaneous) 0 = "No" The attack was domestic on all of the dimensions described above (logistically, ideologically, miscellaneous); -9 = "Unknown" It is unknown if the attack was international or domestic	Nominal
135.	related	When an attack is part of a coordinated, multi-part incident the GTD IDs of the related incidents are listed here, separated by commas.	Text