

**Understanding the terrorism dynamics and preparedness in the
metropolitans of Pakistan**



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of the metropolitans of Pakistan**



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A thesis submitted to the National University of Sciences and Technology, Islamabad, in partial

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Masters of Science in Urban & Regional Planning

Thesis Supervisor: Dr. Irfan Ahmad Rana

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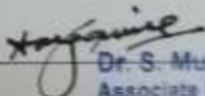
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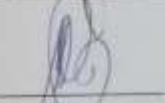
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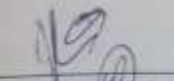
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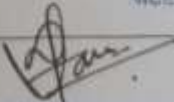
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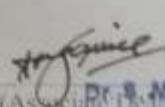
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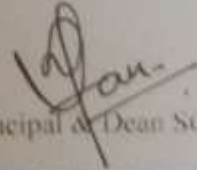
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ABSTRACT

Urban terrorism has become a significant concern in cities worldwide, as they are centers of economic and socio-political activity. A bibliometric review was conducted, including historical background, author keywords, country and institution, citation, and co-citation analyses. The number of studies on urban terrorism significantly increased after the 9/11 attacks in the United States, which accounted for the highest number of publications. Most of the studies were conducted in the fields of government law, international relations, and urban studies. Keyword analysis showed that counterterrorism, security, and disasters were more closely linked to terrorism than political violence, insurgency, and emergency management on an urban scale. Thematic analysis identified six main themes related to urban spaces and terrorism: tourism, governance, resilience, public health, economy, security, and counterterrorism.

This study also aims to assess terrorist risk perception in five Pakistani metropolitan areas: Islamabad/Rawalpindi, Karachi, Lahore, Peshawar, and Multan. The factors influencing risk perception also differed among the communities, illustrating geographical heterogeneity. Karachi and Peshawar have experienced direct terrorist attacks in the past and tend to exhibit elevated levels of terrorism risk perception. Continuous ethnic tensions made terrorism a more imminent risk. The public's view of terrorism in the media shapes individuals' opinion of the threat in regions like Multan which has a substantial amount of risk despite having a lower number of violent incidents as compared to other cities in the study.

Furthermore, it explores the vulnerability in the same cities for Capacity-building initiatives. Multan has the highest number of respondents who haven't faced any terrorist activity and have first aid training and awareness/drill attended. Lahore has more than any city with people who are covered with insurance. On the other hand, Peshawar has the most understanding of emergency protocols and a high inclination for special arrangements in case of a terrorist attack. Lahore and Multan show higher trust in communication between the government and the public. A majority of the people in Karachi live near some

govt/security installation and medical/ health care facility, while respondents in Multan show they are in the vicinity of an education or religious center.

The results of this study may assist in comprehending the perception of terrorist risk and its factors, to formulate effective methods for risk communication and mitigation. Furthermore, this research might contribute to the comprehension of multidimensional terrorist risk and its regional patterns. Capacity building in terms of security and on the grassroots level will help elevate trust in government and facilitate good governance.

Keywords: Urban terrorism, War on terror, Counterterrorism, disasters, risk reduction, likelihood and preparedness, capacity building, Resilient cities

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	8
ABSTRACT	9
TABLE OF CONTENTS	11
LIST OF TABLES.....	13
LIST OF FIGURES.....	14
LIST OF SYMBOLS, ABBREVIATIONS AND ACRONYMS	15
CHAPTER 1: INTRODUCTION	16
1.1. Cities and Terrorism	16
1.2. Statement of Problem	16
1.3. Rationale of the study	17
1.4. Objectives of the study	17
1.5. Scope of the study	18
CHAPTER 2: URBAN TERRORISM: PAST RESEARCH, TRENDS, AND THEMES.....	19
2.1. Terrorism	19
2.2. Urban terrorism	20
2.3. Causes of Terrorism	22
2.4. Risk perception.....	27
2.5. Capacity building.....	29
2.6. Bibliometric Analysis.....	31
2.6.1. Publication overview	31
2.6.2. Historical development.....	33
2.6.3. Country and Institutional Analysis	35
2.6.4. Keyword analysis	38
2.6.5. Citation analysis	39
2.7. Thematic analysis	41
2.7.1. Urban spaces and terrorism	41
2.7.2 Urban terrorism and tourism	43
2.7.3. Terrorism, governance, and urban resilience.....	43
2.7.4. Terrorism and urban health	45
2.7.5. Urban terrorism and economy.....	46
2.7.6. Cities, security and counterterrorism	47
CHAPTER 3: METHODOLOGY	50
3.1. Data Collection.....	50
Chapter 4: Terrorism Risk Perception.....	59
4.1. Socioeconomic profile of respondents	59
4.2. Fear and likelihood	62
4.3. Impacts	63
4.4. Trust and Preparedness.....	64

4.5. Terrorism Risk Index.....	65
4.6. Factors affecting terrorism risk perception.....	69
CHAPTER 5: TERRORISM AND PUBLIC CAPACITIES	72
5.1. Past experience with terrorist attacks	72
5.2. Health Insurance and Terrorism	72
5.3. First aid and/or public awareness programs among respondents	73
5.4. Knowledge of emergency protocols.....	75
5.5. Special arrangement in the event of a terrorist attack	75
5.6. Communication between govt and public	76
5.7. Distance to various public spaces from the respondent's residence	78
CHAPTER 6: RECOMMENDATIONS AND CONCLUSION.....	80
6.1. Key findings and recommendations	80
6.2. Conclusion.....	83
References.....	87
Annexure 1: Research Questionnaire	104
Annexure 2: Results Tables	107

LIST OF TABLES

Table 2. 1: Summary of Publications in the Web of Science database (1971-2022).....	32
Table 2. 2: Top 10 cited articles from 1971 to 2022.....	40
Table 3. 1: Search Criteria and Results.....	52
Table 3. 2: Terrorism risk perception assessment domains and indicators.....	56
Table 3. 3: Range of the responses	57
Table 4. 1: Socioeconomic characteristics of the respondents.....	60
Table 4. 2: Mean and standard deviation values of the indicators used in measuring.....	67
Table 4. 3: ANOVA Test	70
Table 4. 4: Correlations of the indicators used in Regression Analysis	71

LIST OF FIGURES

Figure 2. 1: Annual number of publications, and top-ten journals, authors, and disciplines	34
Figure 2. 2: Number of publications around the world.....	36
Figure 2. 3: Top ten institutions and countries publishing on urban terrorism.....	37
Figure 2. 4: Map of urban terrorism of author’s keywords (3 occurrence criteria with 88 keywords)	38
Figure 2. 5: Common themes in urban terrorism literature	41
Figure 3. 1: PRIMSA framework for systematic review	52
Figure 3. 2: Location of Selected Cities in Pakistan.....	54
Figure 4. 1: Fear and likelihood in public around major cities of Pakistan.	63
Figure 4. 2: Impact of terrorism in metropolitan cities of Pakistan.....	64
Figure 4. 3: Trust and preparedness in metropolitan cities of Pakistan.....	65
Figure 4. 4: Terrorism Risk Perception Index	66
Figure 5. 1: Respondents' experience in the past with terror attacks.....	72
Figure 5. 2: Response against health insurance from selected cities	73
Figure 5. 3: Attended any First aid and public awareness programs/drills.....	74
Figure 5. 4: Knowledge of emergency protocols among respondents.....	75
Figure 5. 5: Special arrangements in case or preparation of a Terrorist attack	76
Figure 5. 6: Response from respected cities about Communication between govt and public	77
Figure 5. 7: Distance to the nearest respective space from the respondent's residence.....	79

LIST OF SYMBOLS, ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of variance
CB	Capacity building
CBD	Central Business District
CPR	cardiopulmonary resuscitation
DRR	Disaster Risk Reduction
GDP	Gross Domestic Product
PRISMA	Preferred Reporting Items for Systematic reviews and Meta-analyses
PTSD	Post-traumatic stress disorder
TTP	Tehreek-i-Taliban Pakistan
WoS	Web of Science

CHAPTER 1: INTRODUCTION

1.1. Cities and Terrorism

Cities are the epitome of human accomplishment and are characterized by the development of institutions, laws, and ways of life. Urban infrastructure is unparalleled in the interdependent services it provides, but this also makes it vulnerable (Bugliarello, 2003). New tools for analysis, design, and construction are constantly being developed to make cities more secure and efficient. However, cities also face the threat of organized terrorism, which has become a part of life in many countries around the world (Gilber, et al., 2003) (Kitchen, 2001) (Akıncıoğlu, Kucukevcilioglu, & Durukan, 2022) (Qi, Li, Chen, & Altenbek, 2021) (Dhamne, Mishra, Kumar, & Rao, 2021). Between 1970 and 2017, nearly 170,000 terrorist attacks against civilian targets in cities resulted in the deaths or injuries of over 500,000 people (Crenshaw & Robison, 2022). These incidents can often be classified as large-scale disasters (Jat & Rafique, 2020). While natural and anthropogenic hazards are similar in terms of their destructive power and the challenges they pose in terms of management, terrorism is the least understood hazard due in part to the varying definitions of terrorism, which make it more difficult to comprehend than other natural hazards (Shreve, Begg, Fordham, & Müller, 2016). Modern-era terrorist attacks can range from simple arson to urban guerrilla warfare. They can involve homemade weapons, vehicle-ramming attacks, hostages, suicide bombings, sniping at civilians, mass-scale civil unrest and rioting, to the use of chemical weapons (Miletta, 2021) (Vargas, 2009) (Hess & Mandhan, 2022) (Chambers & Andrews, 2019) (Kosashvili, et al., 2009) (Ristic, 2014) (Monti, 1980).

1.2. Statement of problem

Pakistan has faced terrorism for a minimum of the past three decades. The 9/11 attack is a landmark event in the strategic approach that forced Pakistan to deal with a historically severe surge of terrorism (Ahmed S. , 2020). The list of targets is not only limited to military barracks, defense installations, and security personnel but reaches out to hospitals, public spaces, and even schools (Ahmed N. , 2010) (Rauf, 2019) (Bilal, Abbas, & Rashid, 2022). (Abbas & Syed, 2021). Pakistan's involvement in the War on Terror, nearly 60,773 its citizens between 2001 and 2017, and most of these fatalities occurred in FATA (Grossman, Khalil, & Ray, 2019) (Khalid, 2020). Two-thirds of these are innocent civilians and the survivors have been inflicted with severe psychological wounds (Nizami, Hassan, Yasir, Rana, & Minhas, 2018). Terrorism across the country comprises sectarianism (Sunni and Shiite divide), political discord, bombings, targeted killings, and kidnapping (Malik, Zhilong, & Ashraf, Terrorism: The Biggest Security Challenge to the Integrity

of Pakistan, 2019) (Bano & Khan, 2021). Poverty, illiteracy, lack of democracy, and justice are the main reasons behind terrorism in Pakistan (Khan, 2005). According to the Government, terrorism has harmed the nation's economy as trade and economic activity were disrupted, which raised operating costs and significantly delayed exports. Pakistan has incurred estimated costs of 118.31 billion USD in direct and indirect terrorism during the last decade (Azam, Nawaz, & Riaz, 2019) (Shah, Hasnat, & Sarath, 2020). According to estimates the country also had a financial setback of approximately \$35-40 billion USD between 2001-2002 in less than two years (Ali A. , 2010). There is a dire need to enhance the capacity of Pakistan to counter terrorism due to various aspects including intricate geopolitical terrain, internal socio-political hurdles, and the ongoing risk posed by extremist organizations (Rabbi, 2012) (Rafique & Manan, 2019).

1.3. Rationale of the study

There needs to be more literature on Risk perception and vulnerable communities in Pakistan. Terrorism globally comes under the DRR, but in Pakistan, from mitigation to recovery, every service is handled by Security forces. So, a DRR plan is required to enhance urban resilience. A detailed study is necessary to understand the DRR in terrorism. It's been my observation that whenever a terrorist attack happens, all the urban services in the region are suspended like it happened the first time. There is no proper plan in terms of Disaster response and recovery, although terrorist attacks have been occurring for a long time. The Aim is to study people's behavior and risk perception about terrorist attacks. The research encompasses a comprehensive literature review on Urban terrorism to better understand the current themes. The research also focuses on analyzing the public's perception of risk, preparedness, and the development of skills and resources to decrease disaster risk and improve response and recovery in metropolitan regions of Pakistan. It also recommends the policy-making process and will function as a manual for policy organizations nationwide.

1.4. Objectives of the study

- I. To review current themes of terrorism in urban areas
- II. To identify factors affecting public terrorism risk perception.
- III. To assess preparedness and capacities of urban areas.
- IV. To suggest recommendations for effective terrorism risk reduction for urban areas

1.5. Scope of the study

Pakistan has always faced the threat of terrorism. DRR, in case of a Terrorist attack, will not only help the general public but also guide emergency response units for better and focused disaster response and recovery with minimum Resources. It also involves the public's vulnerability assessment and risk perception towards terrorist attacks. It will help in better understanding the concept of DRR with relevance to terrorism within the context of urban centers in Pakistan. The study also contains a complete thematic analysis of the literature available on varying platforms. It will enhance understanding the Disaster management officials and associated services. The study will not only benefit urban planning and policy-making in metropolitan areas of the country, it also helps in better public Health. The urban infrastructure can be enhanced and built to serve emergency providers. The data also helps Disaster relief organizations better understand the terrorist attacks and their response and recovery.

CHAPTER 2: URBAN TERRORISM: PAST RESEARCH, TRENDS, AND THEMES

2.1. Terrorism

Terrorism is the use of illegal violence against civilians by individuals, states, or non-state groups to bring attention to a cause and inspire other attacks (Sylvester, 2014). It is characterized as an illegal, violent act that violates moral principles and is intended to provoke fear in the general public (Keenan & Greene, Whiteness or resilience? Placing terror by studying the Charleston, South Carolina, 2018). Terrorism is also sometimes defined as the use of illegal force or violence to achieve political, economic, or religious goals (Greenbaum, Dugan, & LaFree, The Impact of Terrorism on Italian Employment and Business Activity, 2007) (Vorsina, Manning, Fleming, Ambrey, & Smith, 2015) (Břeň, Zeman, & Urban, 2020). In some definitions, it is further include actions that violate human rights (Keenan, Rethinking place in the study of societal responses to terrorism: Insights from Boston, Massachusetts (USA), 2016). The Federal Bureau of Investigation (FBI) defines terrorism as "the unlawful use of force or violence against people or property by a group of two or more individuals to intimidate or coerce a government, the masses, or any segment thereof, to promote political or social goals" (Fink, 2003). The causes of terrorism are complicated and diverse including several underlying factors that might encourage people to commit violent crimes (Kruglanski & Fishman, 2006) (Ullah, Qingxiang, Ali, & Anees, 2018). To understand the fundamentals of terrorism, two key components must be considered i.e., there may not always be a direct link between a specific root cause and terrorist behavior. Terrorist acts may be motivated by various variables other than the established core causes. Second, it is critical to recognize that core causes are not always static, and some causes may become less crucial as the dispute progresses (Sinai, 2005). The Economic conditions (Vad, 2018) (Zeb & Ahmed, 2019) (Akhmat, Zaman, Shukui, & Sajjad, 2014), Poverty (Idahosa, Degterev, & Ikhidero, 2021) (Lambert, 2018) (Newman, 2006) Unemployment (Ullah, Qingxiang, Ali, & Anees, 2018) (Bagchi & Paul, 2018), Ideologies or personal inclination (Skoczylis & Andrews, 2019) (Ibrahimi, International Relations and political violence: A study of the causes of domestic Jihadist violence in a transatlantic context, 2020) (Sawalha, 2017) (Derfoufi, 2020) (Clancy, Addison, Pavlov, & Saeed, 2021), Religious motivations (Miller, 2007) (Cliteur, 2017) (Ngwoke & Ituma, 2020) (Gaibullov & Sandler, 2019), and ethnic identity (Bagchi & Paul, 2018) (Ngwoke & Ituma, 2020) can be the cause of Terrorism.

2.2. Urban terrorism

Cities are the centers of economic and social-political activities, making them prime targets for terrorist attacks (İbrahim Ögünç, 2021) (Schon & Nemeth, 2022) (Hunter, Meares, & Ginn, 2017). These attacks can have devastating effects, including loss of life and property, as well as the need for increased security measures for public services such as transportation (Greenbaum & Hultquist, The Economic Impact of Terrorist Incidents on the Italian Hospitality Industry, 2006). The psychological effects of terrorism, including a sense of insecurity and stress, can be even more significant and long-lasting (Sanso-Navarro, Sanz-Gracia, & Vera-Cabello, 2018) (Stuber, Galea, Boscarino, & Schlesinger, 2006). As a result, terrorist attacks have shifted away from critical infrastructure and toward crowded public spaces, religious centers, and government buildings (Bier, Haphuriwat, Menoyo, Zimmerman, & Culpin, 2008) (McIlhatton, et al., 2020). The economic cost of terrorism is substantial, with the Global Terrorism Index estimating that the annual financial losses worldwide are equivalent to the GDP of many developing countries (Qi, Li, Chen, & Altenbek, 2021). Even efforts to counter terrorism can have lasting impacts on urban forms and daily life (Eso, McNeil, & Masamae, 2020) (Marongwe, 2015).

Attacks on urban infrastructure make cities more vulnerable to armed conflict, from civil wars to interstate disputes (Elfverson & Hoglund, 2021). The threat of nuclear and bioterrorism in urban areas is becoming increasingly imminent (Castro, et al., 2021) (Flanagan, Brandt, Osborne, & Deinert, 2021) (Miyazaki, 2021) (Kashiyama, Sobue, & Sekimoto, 2020) (Serfontein, Mulder, & Reitsma, 2014) (Fox, Fuchs, Medina, & Atapattu, 2007) (Lichterman, 1999) (Booth, Chmutina, & Boshier, 2020). Since the terrorist attacks of September 11, 2001, the United States' homeland defense department has focused on not only addressing disasters, but also preventing and fighting terrorist threats. The US National Research Council has responded with various technical strategies to reduce the vulnerability of critical infrastructure, including transportation, ICT systems, the electric power grid, health and emergency response units, and food and water supplies (Godschalk, 2003) (Gerber, Cohen, Cannon, Patterson, & Stewart, 2005).

The spatial impacts and patterns of urban terrorism have become increasingly important over the past two decades (Arbel, Ben-Shahar, Gabriel, & Tobol, 2010). Terrorism is the use of illegal violence against civilians by individuals, states, or non-state groups to bring attention to a cause and inspire other attacks (Sylvester, 2014). It is characterized as an illegal, violent act that violates moral principles and is intended to provoke fear in the general public (Keenan & Greene,

Whiteness or resilience? Placing terror by studying the Charleston, South Carolina, 2018). Terrorism is also sometimes defined as the use of illegal force or violence to achieve political, economic, or religious goals (Greenbaum, Dugan , & LaFree, *The Impact of Terrorism on Italian Employment and Business Activity*, 2007) (Vorsina, Manning, Fleming, Ambrey, & Smith, 2015) (Břeň, Zeman, & Urban, 2020). In some definitions, it is further extended to include actions that violate human rights (Keenan, *Rethinking place in the study of societal responses to terrorism: Insights from Boston, Massachusetts (USA)*, 2016). The Federal Bureau of Investigation (FBI) defines terrorism as "the unlawful use of force or violence against people or property by a group (or groups) of two or more individuals to intimidate or coerce a government, the masses, or any segment thereof, to promote political or social goals" (Fink, 2003). Terrorist attacks are often carried out by organized groups or organizations, which are defined as groups of people working together to achieve a specific purpose or mission. In order to achieve their goals, modern terrorist groups often use unconventional methods of violence, such as bombings, kidnappings, and assassinations, to manipulate people's behaviour (Wolf J. , 1978).

The importance of terrorism was highlighted after the "war on terror" was initiated under the 43rd president of the United States, George W. Bush, in response to the 9/11 attacks (Kincaid & Cole, 2002). Prior to 9/11, the United Nations considered terrorism to be a domestic problem, and no significant action had been taken by the UN General Assembly or Security Council. However, after the attacks, the UN Security Council quickly passed Resolution 1373, which made it mandatory for nations to take drastic steps to prevent and combat terrorism (Zimmerman, *R2P and Counter-terrorism: Where Sovereignities Collide*, 2022).

Over 71 nations reported at least one terrorist attack annually, with an average of over 33 fatalities and significant economic losses from deaths, injuries, property damage, and lost GDP (Ionescu, Roman, Ghenescu, Buric, & Rastoceanu, 2020). Modern-era terrorist attacks can range from simple arson to urban guerrilla warfare, and can involve homemade weapons, vehicle-ramming attacks, hostages, suicide bombings, sniping at civilians, mass-scale civil unrest and rioting, and the use of chemical weapons (Miletta, 2021) (Vargas, 2009) (Hess & Mandhan, 2022) (Chambers & Andrews, 2019) (Kosashvili, et al., 2009) (Ristic, 2014) (Monti, 1980). These hazards can make it difficult for urban centers to provide medical and counterterrorism responses (Roy, Kapil, Subbarao, & Ashkenazi, 2011). As a result, urban counterterrorism has become increasingly complex and is often viewed through the lens of risk management (Jore, 2019). To make cities

safer, security measures are implemented on an urban scale, which not only improves domestic safety but also serves as a symbol of international counterterrorism efforts. However, the potential for real estate development to improve the resilience of urban areas against terrorism has not been extensively explored.

2.3. Causes of Terrorism

It is widely acknowledged that there is no single, comprehensive theory that can explain terrorism because it is next to impossible to cover such a sensitive, broad and complex phenomenon. The reason is that multiple variants of terrorism after being generalized will result in the loss of variations when presented to unique target audiences, recruiting networks, mobilization potentials, national traditions, etc. A good strategy would be to first provide the specifics of various acts of terrorism in detail, followed by a discussion of preexisting ideas (Heitmeyer, 2005).

Terrorists are usually motivated to commit violent acts, either acting alone or in groups, rationally or irrationally, to express specific concerns or demands that become their underlying root causes. It can also be understood as “contributing factors” that may demonstrate correlation under certain conditions (Kruglanski & Fishman, 2006). Underlying factors combined with root causes can help in understanding why terrorism occurs in the first place (Ullah, Qingxiang, Ali, & Anees, 2018) e (Ullah, Qingxiang, Ali, & Anees, 2018). According to the UN General Assembly Resolution, the four root causes of terrorism are colonialism, racism, mass and systematic violation of fundamental human rights/ freedom and alien rule or occupation (Hamid & Sein, 2015).

Two primary factors should be kept in mind to comprehend the root causes theory. First, there may not be a direct relationship between a specific root cause and terrorist action in every particular instance as there can be various alternative forms of action driving those actions. Second, root causes should not be regarded as necessarily static, as it can be possible that some root causes that may not be important in the early stages of a conflict can become peripheral in later stages. As a result, understanding and mapping the spectrum of fundamental causes underlying all phases of a terrorist agenda is critical because they influence future paths, their preferences in choosing targets and the degree of lethality in its warfare (Sinai, 2005).

Economic conditions (Vad, 2018) and marginalization of the lower-income group in a society breed ground for terrorism (Zeb & Ahmed, 2019). Its impact is so strong that even inflation (Akhmat, Zaman, Shukui, & Sajjad, 2014) in some instances can cause or instigate terrorism. Therefore, poverty is also one of the causes of terrorism because there is a strong connection

between terrorism and poverty (Idahosa, Degterev, & Ikhidero, 2021) (Lambert, 2018). The relationship between terrorism and economic conditions has received a great deal of attention as researchers believe that, international terrorism is primarily the result of underdevelopment and poverty (Newman, 2006). This point of view is supported by research showing that democratic institutions with higher GDP have fewer conflicts, and nations with less economic freedom are more likely to experience terrorism. It has also been demonstrated that underdeveloped economies are more prone to host terrorists, whilst industrialized economies are more likely to be terrorist targets (Blomberg, Fernholz, & Levin, 2013).

Unemployment is also a potential factor for terrorism (Ullah, Qingxiang, Ali, & Anees, 2018) due to stress among idle employees who experience the pressure of unmet economic expectations and thus turn to political violence. In fact, unemployment in youth is substantially more severe than overall unemployment because of skill degradation as it ends up in poor salaries for the majority of their working careers. Financial difficulties brought on by a decrease in income may have catastrophic consequences which attack youth toward Violence (Bagchi & Paul, 2018).

Uprisings, including insurgency and guerrilla warfare (Meisels, 2006), also instigate political violence as terrorism, but there is no unilateral decision on the operationalization of these terms based on a solid typology and taxonomy. This is due to the fact that there is no common perspective of ethics, history, or politics, and have a very subjective nature rather than based on sound objective considerations. Therefore, the definition of terrorism and context determine whether insurgency and terrorism are interconnected, overlap, or are strategies in their own right (Ünal, 2016). Insurgency is defined as a continuous political-military conflict intended to undermine or usurp the legitimacy of a formed government or occupying power and entirely or partially dominate a territory's resources through the use of irregular military troops and unlawful political groups (Doctor, 2021). Insurgents are freedom fighters in their perspective. This is the thin line were deciding or separating 'terrorists' from 'freedom fighters' or 'terrorism' from 'war of liberation' becomes difficult as terrorists do not fall under "jus ad bellum," whereas freedom fighters do (Schinkel, 2009).

As the world becomes more open to different sociopolitical ideologies, religious beliefs, and complex, economic conditions, multi-party systems are more susceptible to face terrorism than homogenous governments that have few or no political parties at the national level (Sawalha, 2017). The "political opportunities" and "social cleavage theory" of party systems, (which states

that social and cultural stratification is directly related to sociopolitical institutions,) are also responsible for terrorism.

Empirical studies show that aggregative majority party systems produce functional majorities that are more likely to present policies that will satisfy a broad cross-section of society, are more flexible and able to adapt effective interventions free of ideological baggage more quickly, and so provide the system with long-term stability. According to the social cleavage theory, the number of political parties involved in national legislature is inversely connected to the strength and stability of party systems. Countries that lack strong party structures have various characteristics that might result in political violence and, ultimately terrorism (Piazza, 2006). In this aspect political corruption (Lambert, 2018), lack of democracy (Kivimaki, 2007) (Appelbaum, 2008) and absences of political liberties (Campana & Lapointe, 2012) are also responsible for violence and terrorism.

Similarly, certain Ideologies (Skoczylis & Andrews, 2019) and personal motivation (Ibrahimi, International Relations and political violence: A study of the causes of domestic Jihadist violence in a transatlantic context, 2020) can also be the root cause of terrorism. Organizations do not function in an ideological vacuum and that's why they shared a standard ideological narrative that legitimizes violence in the case of terrorist groups and organizations. After experiencing a loss of personal significance or purpose, people often have a desire for vengeance against those they consider responsible. This is best explained by internalization which happens when people are pulled into terrorist groups because of a similarity between the group and personal traits such as identities, beliefs, perspectives, grievances, or social circumstances (Gómez, et al., 2021). Radicalization is a crucial driver of terrorism (Sawalha, 2017) (Derfoufi, 2020) (Clancy, Addison, Pavlov, & Saeed, 2021).

Radicalization is a classic example of how an idea motivates/affects a person's choices and perception (Mattsson, 2017). It is the emergence of a desire, to create a utopian society of simplified worldviews in which specific groups or social entities are considered as a threat and assist far-reaching social transformations that contradict, or are directly disruptive to the existing order (Sukarieh & Tannock, 2016). There are two schools of thought among researchers: one believes that radicalization is based on a cognitive process that leads to the acceptance of radical ideas, while others believe that it is a behavioral transformation that leads to a situation in which a person has embraced or is willing to perpetrate violence. Although definitions of radicalization

range in their perception, they all share the essential assumption that radicalization indicates that an extremist ideology is somehow a prerequisite for committing a violent act or engaging in terrorism (Crone, 2016).

The literature also distinguishes four types of motivations among terrorists: the urge for belonging, the desire for social status, and monetary reward. Aside from the aforementioned criteria, situations such as grievances and a lack of political engagement are also determinants in the transition to terrorism that will define whether they ultimately pursue an action route or not. Social Movement Theory (SMT) also highlights the significance of political possibilities, the repertoire of contention, and collective action frames. The emotional intimidation to act when confronted with injustice; excitement, honor and peer pressure are all central to SMT. Nationalism is another radical ideology. A nationalist ideology encouraged feelings such as a need for identity, purpose, self-fulfillment, retaliation, and defiance of political, social, and cultural conventions. It simply alters the individual's living setting in a manner that leaves them more open to novel experiences, viewpoints, and ideas (Alonso, 2021).

Another argument that supports the same narrative for terrorism lies in Institution Theory. It is defined as "regulatory, behavioral, and cognitive frameworks and processes that give stability and purpose for social conduct". Institutions, as a critical component of the overall environment, comprise laws, professional and societal norms, culture, and ethics. The study of institutional theory is primarily concerned with how organizations behave from the perspective of their institutional framework. Terrorist organizations and their institutional surroundings have a dialectical relationship which is the underlying cause of terrorism for terrorist organizations to exist such as economic, political, and conflict contexts. These core causes are the most essential component of the institutional framework in which terrorist organizations operate (Luo & Qi, 2022).

A theory from International Relations, called 'levels of analysis,' explains the reasons people get attracted to terrorism. J. David Singer coined the term "levels of analysis" and explained the structural causes of international events on two levels: the state and the international system (Singer, 1961). Kenneth Waltz did not use the term "levels of analysis" in his early work, but he already developed the "three pictures of international politics," i.e., man, the state, and the international system. It is evident in Waltz's well-known work, "Theory of International Politics," which was published in 1979. According to theory, the first level deals with individual actors and

their inclination to act, the second level is based on the group of actors and the opportunities that influence their behavior, and the third level explores the environment in which the actors act. On a personal level, "civil unrest, including strikes, riots, revolutions, and wars" is explained by individual psychology and motivation. This level of examination by scholars "suggests that people become aggressive when they feel frustrated by something or someone, they perceive is preventing them from satisfying a strong goal." Group identification factors including nationalism, ethnicity, ideology, and religion are used to explain conflict causes at the group level. Finally, the international system, often known as "external limitations," is a factor that influences the occurrence of international events of violence. These outside forces can motivate or even compel individuals to wage even war (Ibrahimi, Theory of the rise of al-Qaeda, 2017).

Religious motivations are the most prevalent and fastest-growing cause of current terrorist organizations. They are also challenging to deal with as they are unlikely to deter because doing so would mean betraying their faith (Miller, 2007). Dutch professor Paul Bernard Cliteur has assigned a particular term "Theoterrorism" assigned for religious terrorism. The idea that there is an obligation on the loyal believers of a specific religion to execute what may be considered their divine duty against others is Theoterrorism (Cliteur, 2017).

As religious organizations exist from grass root to a higher level in a community that's why religion has the potential to mobilize and influence people from various walks of life (Ngwoke & Ituma, 2020). That's why recruitment in religious fundamentalist organizations depends on relationships such as kinship, close friends, and/or worship places. They strengthen the control over members by giving social benefits and financial backing to consumer goods and similar products too. According to research on terrorist organizations, religious extremist organizations exhibit long-term survival due to their size and collaborative ties to other terrorist organizations (Gaibulloev & Sandler, 2019).

It has also been observed that sectarianism or religious fractionalization (Bagchi & Paul, 2018), ethno-religious conflicts and religious intolerance (Ngwoke & Ituma, 2020) are also root causes of terrorism all over the globe. Scholars also believe that religion acts more like a "legitimizing factor" which works as a "burning passion" rather than the religion's actual teachings. Terrorist groups frequently use religious rhetoric as a means of brotherhood and morale-boosting, not as a standard justification for their violent actions (Omenma, 2020). It's also argued that, rather than being influenced by religion, terrorism is motivated by a conflict of values or cultures. The recent

wave of globalization has spread ideologies on an unprecedented scale, which in some cases causes tension, fostering the perception or apprehension of cultural superiority and imperialism. This is more likely a clash of cultures than a religious conflict (Newman, 2006).

Moreover, hazard research may also be helpful in identifying the underlying factors that lead to terrorism. A hazard is defined as an extreme phenomenon, natural or caused by humans, that comes into touch with a population that is vulnerable. According to this definition, nature is considered to be neutral, while human decisions about location, the type of economic activity, and social organization are what genuinely result in a hazard, but terrorism doesn't fit in both categorized. This poses a substantial challenge to the natural hazards theory because those who commit acts of terrorism frequently have specific targets in mind while carrying out their actions. Efforts should be made to lessen populations' vulnerability instead of increasing security and technology solutions that are not very effective in preventing terrorist attacks on critical sites or public buildings (Mustafa, 2005).

2.4. Risk perception

Humans instinctively evaluate risks via cognitive associations. External factors may exaggerate visuals and associated risks, leading some people to believe that there is a threat and the urgency and appropriateness of the selected course of action. It can change the subjective opinions of people into widespread hysteria or even civil unrest (Luna, 2012). Fear and extreme emotions may alter people's assessments of possible reactions and perceptions of risk (Björk & Kauppinen-Räsänen, 2011). Risks are the stimuli that have the potential to cause harm, and vulnerability is the likelihood that a person or population exposed to a risk will experience that harm (Keenan, Men and women in Boston learn about terrorism differently: gendering the urban values–vulnerability nexus, 2016). Risk perception explains how society reacts to hazards in the way it typically does. People often "overreact" to hazards when they perceive them to be more severe than they are, despite assurances from professionals that a particular risk is minimal. Through the development of a theoretical framework called the risk matrix (or psychometric paradigm) to examine how people perceive and react to risk (Sheppard, 2011).

People are influenced mainly by terrorism due to its probability of occurrence (Zhu & Deng, 2020). Individuals who are directly affected may have severe physical and psychological impacts that challenge their underlying beliefs of safety in public spaces, during routine travel, and the unpredictability of risk. (Thomson & Wilson, 2005). Terrorism influences every societal level

because it merges two aspects that are known to increase risk estimates: "dread risk," which refers to threats that are perceived as life-threatening and unpredictable, in their consequences, and "unknown risk," which refers to hazards that may not be visible or where the cause of injury is unknown. Threats with these characteristics are frequently exaggerated in terms of probability and risk to the individual, and they tend to be generalized much beyond their known spheres of occurrence (Stevens, et al., 2011).

The psychometric paradigm has evolved as a critical theory in this area. It indicates that risk perceptions are multi-dimensional and reflect a variety of characteristics, including dread, uncertainty, familiarity, and controllability surrounding the hazard. Other societal and individual elements, such as diverse demographic statistics, perspectives, and media representations of risks and hazards, have also been proposed to be significant (Krewski, Turner, Lemyre, & Lee, 2012). The I-knew-it-all-along effect, also known as hindsight bias, is the notion that a situation could have been easily predicted before it occurred. This heuristic causes people to estimate an event's frequency or probability based on how easily they can think of instances. Nevertheless, the conjunction fallacy is a common misconception in which individuals give a scenario with both an outcome and an explanation a higher likelihood rating than a scenario with simply the primary outcome (Koblenz, 2011).

"Terrorism" is a word and a notion that stirs up powerful, painful imagery that often makes reasonable risk evaluations based on the unpredictable character of terrorism, the use of weaponry, and their determination to target civilians who have no absolute control over the risk of attack all contribute to the fear. Scale and probability issues are crucial for risk analysis because they have an impact on any accurate cost-benefit analysis and, by extension, sensible legislation (Luna, 2012). In a large body of literature, several studies have looked at the consequences of terrorism-related emotions on a range of sociopolitical attitudes, including authoritarianism, political tolerance, ethnocentrism, and adverse profiling (Sirin & Geva, 2013).

To evaluate the hazards of terrorism, quantitative risk analysis is utilized. Risk is calculated by multiplying the likelihood of an event occurring by the severity of its effects. While this classification aids in determining typical risks over time, it might not adequately reflect extraordinary occurrences such as terrorist attacks or public opinion. Theories such as "risk as feeling" and "accidents as signals" could help to explain why the public is more concerned about terrorist attacks than with traditional definitions (Thompson & Bank, 2007).

2.5. Capacity building

Capability refers to the collective or individual knowledge, skills, and attitudes that enable them to perform assigned tasks. However, Capacity is the entire competence of an individual or organization in carrying out the duties they have assigned. The outcome can be affected by one's ability, the scale of the operations, resources, and the framework in which they are carried out (Franks, 1999) (Kaplan, 2000). Capacity building (CB) aims to enhance the ability of organizations to be adaptable and tackle challenges to attain sustainability over the long run (Bates, et al., 2011). It can also be understood as an awareness enhancement program that improves individuals' behavior to make choices with greater certainty, better adjust to changing scenarios, and be more efficient when executing decisions (Breen, Jaganyi, Van Wilgen, & Van Wyk, 2004) (Baillie, Bjarnholt, Gruber, & Hughes, 2009). The term 'capacity' is frequently utilized in vulnerability and resilience research to refer to aspects like readiness, coping, response, recovery, or adaptive capacity while in climate change, the notion of 'adaptive capacity' is regarded as the ability to adapt and accumulate awareness (Kuhlicke, et al., 2011).

Capacity-building initiatives seek to integrate the development and sharing of information in a way that may effectively inform and be influenced by action (Virji, Padgham, & Seipt, 2012). It involves the exertion of authority, as the practitioner needs authority to carry out capacity-building efforts, which are focused on bringing about change and transformation. This crucial aspect makes Power an essential factor that is necessary to overcome various barriers (Girgis, 2007). The ten capacity components that can be developed within a community include participation, leadership, skills, resources, social and interorganizational networks, a sense of society as a whole understanding of community history, community authority, values associated with it, and critical thinking (Raeburn, Akerman, Chuengsatiansup, Mejia, & Oladepo, 2006).

The concept was first rooted in the ambition of attaining macroeconomic stability and growth in the developing world by emphasizing the establishment of institutions, technological advancement, and the transfer of technology around 1984 (Harrow, 2001) (Ridge, Klar, Stimpfel, & Squires, 2018). Enhancing community capacity has several benefits, such as improved access to the target population, elevated resource utilization, increased local expertise, and heightened community responsiveness to that arise issues about health (Liberato, Brimblecombe, Ritchie, Ferguson, & Coveney, 2011). This approach to community capability further received greater attention as a result of Healthy Community initiatives in the 1990s (Liberato, Brimblecombe,

Ritchie, Ferguson, & Coveney, 2011). Although it may appear to be a novel concept, community capacity building has gained new significance in today's worldwide and interconnected society, which is marked by intricate major shifts (Loza, 2004). A capacity-building approach is and must be oriented towards social change in local, regional, and global settings rather than focusing on scores of projects (apucu, Healy, & Arslan, 2011).

There were two significant advancements in the conceptualization of capacity building in the mid-1990s. Initially, a new model related to collaboration shifted CB towards partnership and ownership. Furthermore, the concept of capacity was expanded and interconnected with the principles of systems thinking. The adoption of these two frameworks is significantly transforming the methods used to design, execute, and assess capacity-building initiatives (World Health Organization, 2001). According to (Hendrix & Young, 2014) The concept of state capacity can be divided into two dimensions; military capacity, which refers to the ability to deploy conventional military force, and bureaucratic/administrative capacity, which refers to the ability to gather and handle information over time. Both of them have distinct qualities and opposing effects on both the motivation and ability to participate in terrorism.

The potential outcomes associated with capacity building are categorized by three distinct levels. These levels encompass enhancing the organization's ability to effectively carry out its existing activities (program delivery), boosting its growth (program expansion), and improving the organization's adaptability to effectively respond to constantly shifting requirements (Sobeck & Agius, 2007). The function of participating external parties/outside is to enhance the ability of local individuals. These factors can encompass cognitive, administrative, political, societal, cultural, material, technical, or economic aspects, and are likely to be a dynamic blend of all of them (Eade, 2007).

Terrorist groups choose to operate in regions with weak governance, where there is a lack of public authority and little chance of being detected, interfered with, or ceasing to exist (NEWMAN, 2007). The concept of "weak states" describes a scenario in which the government has a poor capacity to uphold public order within its territory, has difficulty controlling its borders, struggles to sustain functional public institutions or services, and is susceptible to internal challenges that go against the constitution (Larue & Danzell, 2022). The aim is to strategically direct and finance projects in education, development, and other areas to influence public sentiment and gain support in the ideological stage of the worldwide war on terrorism (Tan, 2005). Enhance the capabilities

of both governmental and non-governmental entities in countering the factors that contribute to radicalization, and reinforce the connections between essential parties involved (Njoku, 2021). The implementation of the United Nations (UN) Global Counter-Terrorism Strategy in 2006 represents an unprecedented degree of collaboration among nations and governments (Rosand, Millar, Ipe, & Healey, 2022). The focus of counter-terrorism has drastically evolved by incorporating capacity building, to the extent that it became one of the four pillars of the Global Strategy to combat terrorism (Karlsrud, 2017) (Bird, 2015). Capacity building is primarily an internal operation that can be strengthened by outside entities (Goldberg & Bryant, 2012). For instance, there may be limited resources or a need for more organizational resources (time, skills, experience, cash, facilities, and equipment) that can enhance the success of capacity-building initiatives by collaborating and prioritizing essential activities (Langaas, Odeck, & Bjørvig, 2007). Counter Terrorism and Capacity Building involve various aspects, such as technological, cultural, societal, and individual factors (Keelty, 2007) (Borgu, 2004). Building capacity has been the cornerstone of the United States (US) for counter-terrorism since 2001. It has prioritized Building Partnership Capacity (BPC) as a strategic approach to combat its war on terrorism. The primary objective of the BPC is to enhance a partner country's building capacities to enable the partner country to effectively maintain security and stability inside its borders (Veneri, 2011).

2.6. Bibliometric Analysis

2.6.1. Publication overview

The results show that a total of 500 articles from 335 journals were identified, as shown in Table 2.1. The journal with the highest number of publications was "Terrorism and Political Violence," with 21 articles. "Studies in Conflict Terrorism" published 16 articles, followed by "Journal of Urban Health Bulletin of The New York Academy of Medicine," which had 12 publications. "Journal of Urban Economics," "International Journal of Urban and Regional Research," "Urban Affairs Review," and "Urban Studies" had a combined total of 33 publications from 1971 to the date of data retrieval. This pattern suggests that few urban-related journals have addressed terrorism from an urban perspective or considered it a critical aspect of urban infrastructure. The number of publications for each journal since 1971 is shown in Figure 2.1.

Table 2. 1: Summary of Publications in the Web of Science database (1971-2022)

Summary	Values
Articles	500
Sources (Journals)	335
Citations	12,356
Average citations per article	24.71
Authors	1,242
Articles per author	0.40
Authors per article	2.48
Author's keywords	1481
Institutions	734
Countries	58

As per language statistics 97% of the papers are written in English, while the remaining 3% (16 papers) are written in Spanish, French, German, Italian, and Russian. Of the documents written in these languages, the majority (7 papers) are in Spanish, followed by 2 documents in each of the other languages. The total number of keywords extracted from the data collected using VOS viewer is 1481. The total number of citations from 1971 to the present (September 3, 2022) is 12,356, and the average number of citations per article is 24.71.

There are a total of 1,242 authors who have worked on urban terrorism. The authors with the most publications are Dr. Coaffee, who has published 11 papers, followed by Dr. Keenan with eight publications, and Professor Sandro Galea, who has published 6 papers on the topic. The top 10 published authors and their number of publications are listed in Figure 2.1.

2.6.2. Historical development

One way to measure the progress of a particular subject is to look at the number of publications produced each year. The extracted articles show that research on urban terrorism began in 1971, but until 2000, only a small number of articles were published, averaging fewer than 1 per year from 1971 to 1999. Most of the articles are related to Government law, International Relations, Environmental Sciences, Public Administration, and Medical Sciences. Most published articles by disciplines categories are given in Figure 2.1.

After the 9/11 attacks, there was a sudden increase in the number of articles published, with 21 articles in 2002. From 2003 to 2008, the number of articles increased to 89, averaging 14.8 articles per year. The yearly publications can also be seen in Figure 2.1. In 2009, there is a noticeable increase in the number of articles. The number of articles reached 22 in the same year. During the decade from 2001 to 2010, the publications were more focused on Urban Studies, Public Administration, and Public Environmental Occupational Health, with more than 75 papers belonging to these categories out of a total of 55. Between 2010 and 2016, the total number of articles reached 124, but less than the 22 articles in a single year. The trend began to rise again in 2017, with 31 articles per year. The number of articles increased to 34 in 2019 and 50 in 2020. From 2011 to 2020, Government Law, International Relations, and Geography reappeared as categories. The total number of categories increased from 55 to 58 in the last decade. The number of articles reached a high of 51 in 2021. As of the time of writing, 2022 has seen 26 articles published in the first half of the year.

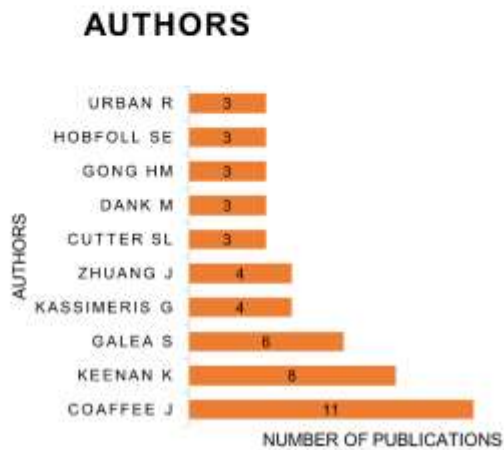
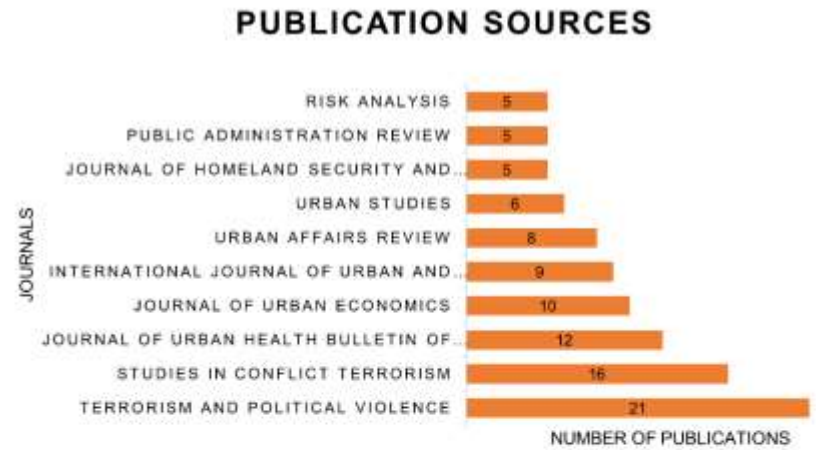
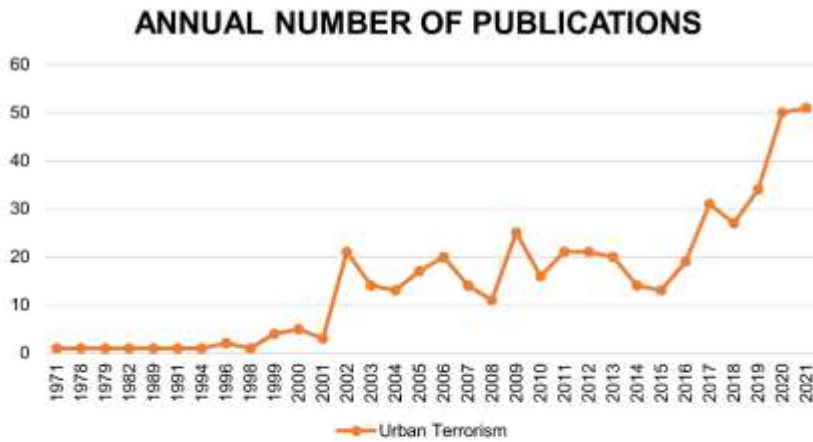


Figure 2. 1: Annual number of publications, and top-ten journals, authors, and disciplines

2.6.3. Country and Institutional Analysis

The number of articles published by a particular country reflects its interest for a specific field. Figure 2.2 represents number of articles published around the world. There are about 734 institutions around the globe working on urban terrorism. The results show that the University of California System, Columbia University, and Harvard University are the top 3 institutions working on urban terrorism, as shown in Figure 2.3. The University of California System has published the most articles, with 17 throughout history. Columbia University, Harvard University, State University Of New York Suny System, and State University System of Florida are ranked 2nd, 3rd, and 4th, with 11 publications each. All of these educational institutes are located in the United States, making it the country with the highest number of articles (230 articles). The United Kingdom and Australia rank 2nd and 3rd, with 13% and 6.6% of the articles, respectively. The rest of the top 10 countries are listed in Figure 4. It is noteworthy that only these top 3 countries (US, UK, and Australia) make up approximately 65% of the total literature available on urban terrorism, which is about 328 out of 500 articles. France and Spain each contribute 2.2% of the articles.

The reason for the high number of publications (230) from the United States is that after the terrorist attacks of September 11, 2001, the structure of federal preparedness and response programs was changed. While most emergency management services remained the same, new federal priorities merged disaster management with homeland security. The goal was to increase the capacity of "high-threat, high-density" metropolitan areas to prepare for and respond to acts of terrorism and other disasters.

The data shows that universities significantly impact a country's overall ranking in the number of publications worldwide. As the number of publications from an institute increases, it also adds to the number of articles published from the same country per year. Similarly, if a country has a high number of publications, it indicates that research institutes in that country are working on a specific topic or that the country is particularly concerned about it and therefore has a higher number of publications compared to other countries.

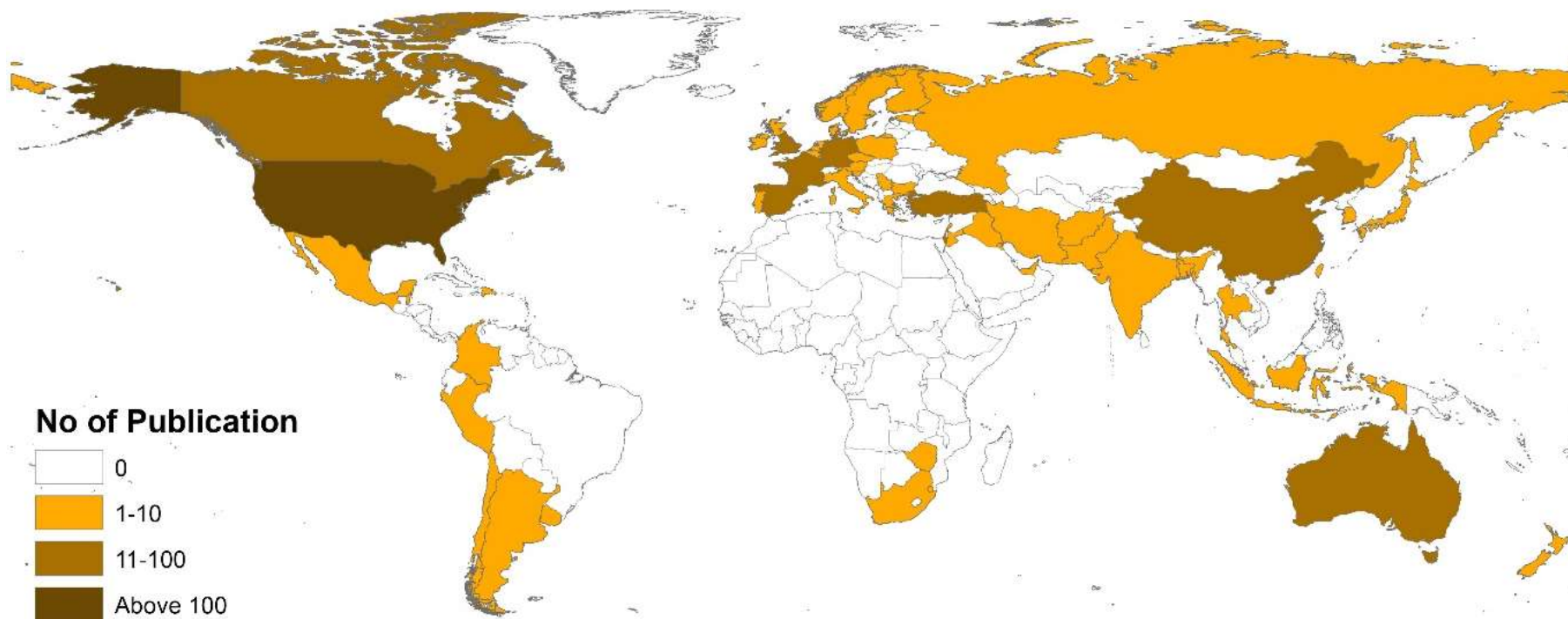


Figure 2. 2: Number of publications around the world

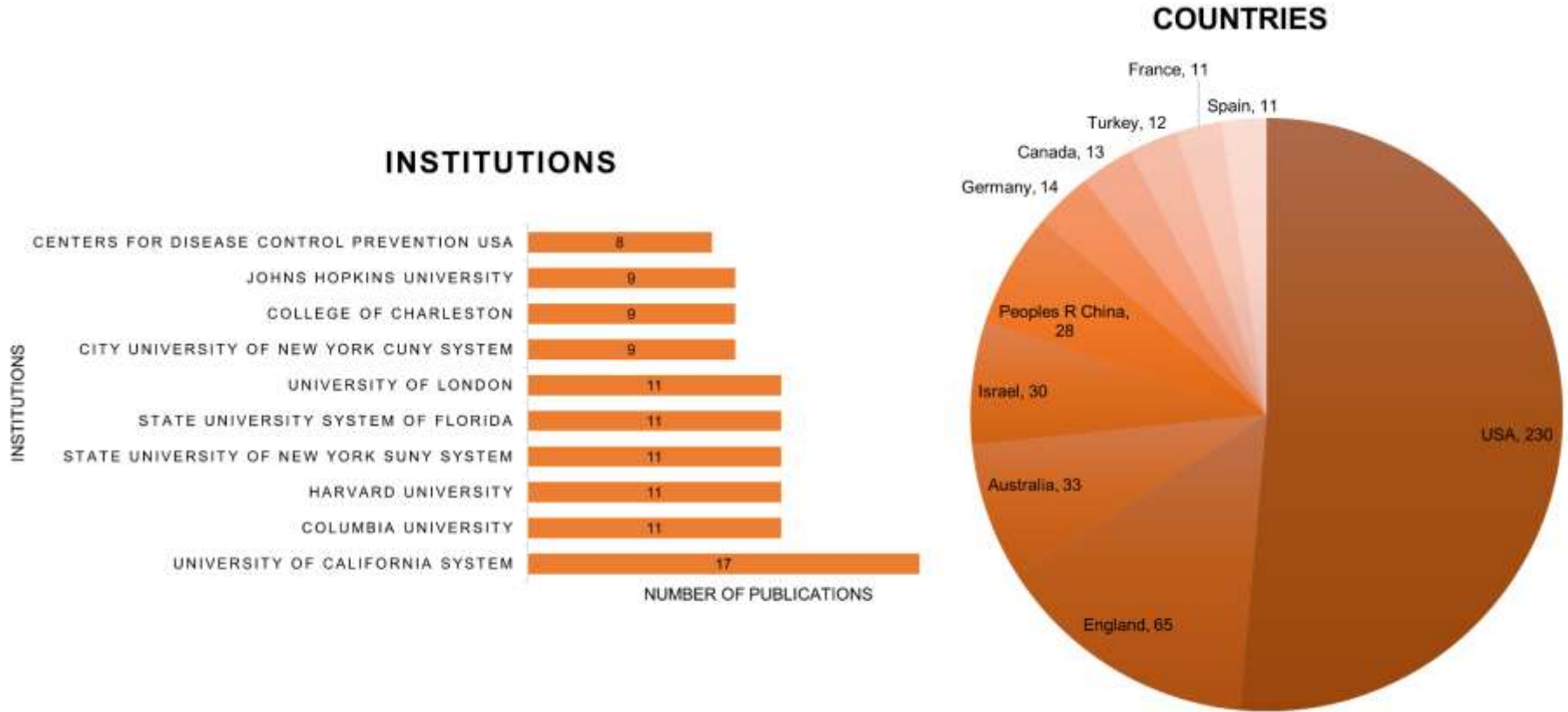


Figure 2. 3: Top ten institutions and countries publishing on urban terrorism

2.6.5. Citation analysis

Citation analysis identifies the most highly cited journal article in urban terrorism. The study found that the most cited paper is "The spread of true and false news online" by Dr. Vosoughi, Dr. Roy, and Dr. Aral, published in 2018, and has been cited 2,016 times. The study highlights the extent of authenticity and accuracy of news that circulates on Twitter. The findings show that false news travels more widely online than truth, which is contrary to the belief that fake news is disseminated for profit. Despite network and individual characteristics that favor the truth, what promotes the spread of fake news is the greater tendency of people to retweet false information over the truth (Vosoughi, Roy, & Aral, 2018).

The second most highly cited journal article is "Urban Hazard Mitigation: Creating Resilient Cities" by David R. Godschalk, published in 2003, and has been cited 696 times. It discusses the importance of resilient cities for disaster reduction from a terrorism perspective. The authors define resilient cities as an interconnected web of social and physical systems. The social aspect is the human communities that form the foundation of a city, which may have formal or informal human connections, such as task groups, agencies, and organizations. The physical systems consist of the environmental parts of the city, including waterways, topography, and geology, as well as structures such as roadways, buildings, communications, and energy facilities. The paper emphasizes the ability of community networks and physical systems to withstand and function in abnormal circumstances during and after a crisis. Institutional and social networks display various levels of organization, identity, and cohesion, as without solid communities, a city will remain vulnerable to disasters (Godschalk, 2003).

"Collaboration and leadership for effective emergency management" is a paper written by William L. Waugh Jr. and Gregory Streib, published in 2006. The paper emphasizes the importance of collaboration in addressing natural and technological hazards and disasters, including terrorism. It notes that the complexity of the policy networks and political and administrative factors involved in disaster mitigation makes it challenging to predict or control outcomes. As a result, professional emergency managers must work together to complete tasks effectively. If they fail to do so, they risk being held responsible for negligence and resulting public loss (Waugh Jr & Streib, 2006). Next most cited articles in the top 10 from 1971 to 2022 are given below in Table 2.2.

Table 2. 2: Top 10 cited articles from 1971 to 2022

Sr no	Name of study	Year	Citations
1	The spread of true and false news online	2018	2016
2	Urban Hazard Mitigation: Creating Resilient Cities	2003	696
3	Collaboration and leadership for effective emergency management	2006	514
4	Trends of probable post-traumatic stress disorder in New York City after the September 11 terrorist attacks	2003	389
5	Metaphors matter: Disaster myths, media frames, and their consequences in Hurricane Katrina	2006	319
6	Online trust: a stakeholder perspective, concepts, implications, and future directions	2002	319
7	Urban sprawl	2004	253
8	Strategy as a wicked problem	2008	238
9	Pharmacology and toxicology of cholinesterase inhibitors uses and misuses of a common mechanism of action	2005	209
10	An overview of 9/11 experiences and respiratory and mental health conditions among World Trade Center health registry enrollees	2008	192

2.7. Thematic analysis

The thematic analysis has revealed several themes. However, the most common and recurrent themes were along the nexus of terrorism with urban spaces, tourism, governance, urban resilience, urban health, economy, security, and counterterrorism (Figure 4.5).



Figure 2. 5: Common themes in urban terrorism literature

2.7.1. Urban spaces and terrorism

Urban centers are almost always a hot spot for terrorism. Cities are desirable targets for terrorists for several reasons, including their symbolic significance, the potential for immense destruction, and the focus of media attention. The execution of a terrorist act will, therefore, pay close attention to regional specifics. Another main reason terrorist attacks are more common in urban areas is that those who plan and carry them out are more likely to reside there. Moreover, informal and formal social control is less effective, and many symbolic targets are available in the urban landscape.

Terrorist attacks are often more common in urban centers due to their symbolic significance, potential for destruction, and media attention that cities attract. Terrorists also tend to plan and carry out attacks in urban areas because they are more likely to reside there (Bolling, et al., 2007) (Burke, 2009). In addition, urban areas often need more effective informal and formal social control mechanisms, and there are many symbolic targets available within the urban landscape. Therefore, terrorists carefully consider regional specifics when planning and executing attacks in urban areas (LaFree & Bersani, 2014).

The complexity of urban sites makes it difficult to conduct vulnerability assessments to mitigate the risk of terrorist attacks. Physical measures, such as thorough examination, can help reduce the likelihood of terrorists finding cover or hidden spaces. However, this can present challenges, such as determining the goals of a potential attack, the time frame that is most critical, and ways to minimize the weaponization of urban infrastructure to limit the extent of the damage. It is also possible that terrorists may strike without warning in order to maximize the shock effect, influence public opinion and security, and exhaust government resources that could have been used to protect specific targets. Terrorists may also use urban infrastructure, such as architectural features of buildings, to enhance the impact of their attacks. For example, confined spaces and crowded areas during rush hour can slow down the ability of security forces to respond quickly (Flaherty, 2007). Terrorists can use critical urban infrastructure to amplify disruptions and social distrust, making it an effective tool for spreading fear and destabilizing society. They often choose "soft" targets in urban spaces in order to maximize the complexity and impact of their attacks. Essential infrastructure is particularly vulnerable to becoming a target. The message that terrorists seek to spread through these attacks is that no one is safe in everyday life, which undermines public trust in the government's ability to protect the masses and disrupts the services that the public relies on heavily (Hirsch, Thompson, Blewett, & Every, 2015) (Heino, et al., 2019).

In the 21st century, urban planners have made a significant effort to design attractive urban spaces that attract both business and leisure travelers. As a result, planners in urban centers are more focused on protecting both visitors and surrounding structures, especially after the 9/11 terrorist attacks. These increased security measures, such as reduced access to public buildings, have had a negative impact on the tourist experience (Daniels, Park, Harmon, & Brayley, 2013). A terrorist attack in an urban center could also be more impactful due to the possibility of additional explosions or building collapses. Such an attack might involve setting off one bomb to attract

emergency service personnel before detonating additional bombs to cause the most damage to these organizations (Bolling, et al., 2007).

2.7.2 Urban terrorism and tourism

Urban tourism can play a significant role in economic development. It not only creates employment opportunities for local communities, but it can also stimulate the labor market and generate spillover effects for other businesses (Zhang & Xiang, 2021). However, terrorism can have a significant negative impact on tourism. The tourism industry will face a short-term decline if a city suffers one considerable attack. It can decrease the number of tourists, disrupt tourism activity, and discourage long-term investment in the industry (Hitchcock & Putra, 2005). In cities that depend heavily on tourism, such as New York and Los Angeles, industries like restaurants, transportation, entertainment, and commercial spaces often rely on nonresident spending for a significant portion of their revenue (Greenbaum & Hultquist, *The Economic Impact of Terrorist Incidents on the Italian Hospitality Industry*, 2006). As a result, tourism can be particularly vulnerable to a sudden downturn caused by a terrorist (FAINSTEIN, 2002). It has been observed that a decrease in tourism to a particular location may be partially offset by an increase in travel to other countries that are perceived as more stable. However, this replacement effect was not observed for countries with high levels of intense terrorist activity. Instead, terrorism in countries with unstable political systems can lead to an additional decline in tourism (Montes & Bernabe, 2020).

There are three types of terrorism-tourism relationships that can be observed from the literature

- 1) Several case studies, including the Norway attacks in 2011 and the 9/11 attacks in the US, have shown that terrorist events can lead to a 13.5% decrease in visitors to the Caribbean.
- 2) Cross-sectional studies, such as one conducted between 2001 and 2003 comparing G-7 countries to 134 overseas locations, have shown that both domestic and international terrorism can significantly impact the flow of tourists.
- 3) Longitudinal studies conducted in specific countries, such as Pakistan from 1980 to 2010, demonstrate the negative economic impacts of terrorism on tourism, including a decline in GDP and negative economic growth (Zeman & Urban, 2019).

2.7.3. Terrorism, governance, and urban resilience

The concept of resilience has become an essential factor in institutional responses to disruptions caused by terrorist risk and other potential shocks. In recent decades, building resilience in

metropolitan areas has become a strategic priority. Resilience measures aim to address vulnerabilities that can exacerbate crises and hinder coping mechanisms. In response to the fear of terrorism, countries such as the US and UK have undergone significant changes in emergency governance, including increased government emergency budgets and prioritization of terrorist-related threats in resilience enhancement efforts.

Despite the growing popularity of resilience, studies have shown that municipal authorities' implementation of urban resilience often fails to result in any significant transformation. There needs to be a substantial gap between the theoretical policy vision of urban resilience and the actual city governance. Urban resilience will be most successful when it involves a collaborative network of civic organizations, agencies, and individuals working together towards shared goals within a common strategy. To mainstream or institutionalize resilience across the city, it must be integrated into policy and decision-making processes, and research on worldwide urban terrorism incidents can be used to inform the development of more resilient cities (Coaffee, *Futureproofing against shock: Institutional responses to terrorist risk in London, 1990–2020*, 2021) (Marei, Atia, Bhungalia, & Dewachi, 2018).

Resilient cities are designed to be robust and adaptable, with their lifeline networks of highways, utilities, and other support infrastructure able to continue functioning even in the face of terrorist attacks and natural hazards (Boyle, 2012). Urban governance is critical in the fight against terrorism, as it directly impacts the likelihood of attacks. However, it is essential to note that some attacks have occurred in well-governed political environments in western countries. It is believed that the presence of ungoverned spaces, where state institutions cannot fully exert their authority, can create an environment that is conducive to the growth of criminal or terrorist organizations. Therefore, there is a strong correlation between ungoverned spaces and insecurity (Ojo, 2020).

The need for reforms in risk governance following the 9/11 terrorist attacks led to the development of new organizational theories explaining why some institutions are able to adapt to unexpected disruptions in their environment. In this context, resilience is typically understood as the ability to effectively manage complex situations and plan an effective crisis response that allows an organization to return to normal operations as quickly as possible. The importance of a new form of governance, known as "resilience planning," is growing as it involves the integration of a network of stakeholders across multiple organizational levels at the national and municipal levels. This approach allows the development of strategic policies that can address emergencies.

2.7.4. Terrorism and urban health

Terrorist attacks are becoming more common worldwide, and they can have a significant impact on survivors' physical health, interpersonal communication, and quality of life for months or years (Herman, Felton, & Susser, 2002) (Gregory, et al., 2019). A critical finding in the field of disaster preparedness is the relationship between PTSD and socio-economic factors that can contribute to trauma-related psychopathology (DiGrande, et al., 2008). PTSD is the most common mental health issue that arises after a traumatic event. Early studies on PTSD mainly focused on combatants from the Vietnam War, but recent research in the field of epidemiology suggests that disasters can have significant and long-lasting psychological effects, regardless of the scope of the immediate events (such as property destruction and fatalities) and their economic consequences (Galea, et al., 2002).

A significant study was conducted three months after the terrorist attacks in New York, Madrid, and Utya to understand the impact of terrorism on mental health. The results of this study showed that 20% of people in New York who lived close to the World Trade Center, 12% of people in Alcalà, Spain, and 11% of people on Utya Island reported experiencing post-traumatic stress disorder (PTSD). While it is common for 50% of patients to recover from PTSD within three months fully, many people continue to experience symptoms for up to 12 months after the traumatic event. According to a survival analysis of terrorist incidents, more than a third of those who develop PTSD never fully recover, even years later. The adverse effects of PTSD on interpersonal relationships can have a significant impact on overall well-being and can lead to mental health disorders, as well as chronic stress and sadness (Vandentorren, et al., 2018).

Suicidal terrorist attacks, in which the goal is to harm as many unprepared victims as possible, often result in a high rate of injury. This is made worse by the fact that civilians are not typically wearing body armor, which increases their vulnerability to injury. A range of injuries can be caused by the presence of shrapnel such as pellets, nuts, bolts, nails, ball bearings, and other debris, in addition to the explosive material. Blast-associated head trauma, which involves the over-pressurization of the brain structure and can result in shrapnel wounds, secondary fragmentation, and tertiary blunt injuries, is one of the most complex brain injuries caused by these types of attacks. In recent history, most terrorist attacks have employed conventional weapons or techniques. The severity of the impact of these attacks can vary greatly depending on the setting, timing, proximity to health care facilities, type of explosive device, size of the charge, and whether

the attack occurs in an enclosed or open area. These factors all play a role in determining the number and severity of injuries sustained (Stein & Hirshberg, 1999).

2.7.5. Urban terrorism and economy

Cities are the engines of economic growth, which also makes them attractive targets for terrorists. Major Central Business Districts around the world, from New York to Paris, that feature government buildings or iconic structures are at risk for terrorist attacks. Studies have shown that even minor terrorist strikes that directly damage physical areas can have a significant and far-reaching economic impact. Repeated terrorist attacks can affect a country's economy, its neighbors, and the global economy. The cost of insurance, transactions, transportation, and security increases for small and medium-sized businesses (Asgary, Ozdemir, & Ozyurek, 2020). For example, New York City suffered an estimated economic loss of \$83 billion in damages and 125,000 jobs after the 9/11 attacks. By the end of 2002, the unemployment rate in New York City had increased to 8.4% (Savitch, 2003).

Terrorism affects economic outcomes primarily through two different pathways. First, terrorist attacks tend to destroy productive human capital, while the loss of infrastructure is relatively minimal. Second, terrorism can increase people's anxiety, which can significantly impact their behavior as economic agents. For example, Chicago's Central Business District (CBD) was not directly affected by the 9/11 attacks, but the sudden increase in perceived terrorist risk after the attacks did affect the occupancy levels of notable structures such as the Sears Tower in the CBD. This demonstrates how the psychological effects of terrorism can have an economic impact even in areas that are not directly affected by an attack (Abadie & Dermisi, 2008).

Governments and private businesses typically spend significantly more money on preventing terrorist attacks than on rescue, cleanup, and rebuilding efforts. After the September 11 attacks, it is estimated that the US federal government's spending on terrorism increased by almost \$95 billion per year. The threat of terrorism has a range of macroeconomic costs for the entire economy. This is because funds allocated to enhancing security in the public and commercial sectors may crowd out more beneficial investments, increase the cost of labor and capital, and direct research towards military and security-related issues. Terrorism can also impact local economies as well as the global economy by diminishing foreign investment and trade. It is well-known in the field of criminology that surges in violence often have a significant impact on the retail and personal service sectors. As terrorism can also increase the costs of doing business, it is likely to have

similar effects on firms (Greenbaum, Dugan, & LaFree, *The Impact of Terrorism on Italian Employment and Business Activity*, 2007).

Terrorism can also have an impact on real estate, as taller structures make better targets for attacks. Land values have a direct relationship with building height, with taller buildings generally being more profitable. However, the cost of insurance for taller buildings is often higher. The value of land in the central business area (CBD) is frequently driven by the proximity to other offices that engage in similar activities. The threat of terrorist attacks can lead to lower land values in the CBD and lower office building heights, as there is less demand for interior space or rents may drop (Mills, 2002). The most significant economic threat for cities is the increase in the cost of structures and public events. Banks and insurance companies in the United States have either declined to finance large-scale projects or have done so at excessively high rates, resulting in real estate projects worth more than \$15.5 billion being put on hold or abandoned due to the inability to secure insurance (Savitch, 2003).

2.7.6. Cities, security and counterterrorism

Since ancient times, security systems such as walls, gates, and troops have been crucial components of many cities, as they serve to restrict entry and protect the population from outside dangers. In modern times, urban areas often incorporate new security features such as bollards, planters, wedge barriers, concrete blocks, surveillance cameras, and guards to protect against potential threats. These security measures are often implemented around specific buildings and important urban locations, rather than throughout the entire perimeter of the city (Illum, 2022). The most common methods for deterring or preventing terrorist action range from simple security checks and patrols to more complex physical barriers, as well as intelligence and surveillance efforts (Rycus, 1991).

Initially, it was believed that obvious security measures could negatively impact the public's perception of safety and security. However, a survey conducted by the Danish Security and Intelligence Service (PET) found that visible security measures actually made individuals feel safer. The study also revealed a range of "soft" characteristics that significantly impacted respondents' perceptions of safety and security in crowded environments. These findings suggest that both visible and intangible factors play a role in how people perceive the level of protection in a given environment (Dalgaard-Nielsen, Laisen, & Wandorf, 2014).

Additionally, the war on terror has no defined time frame (Spicer, 2002) (Coaffee, O'Hare, &

Hawkesworth, *The Visibility of (In)security: The Aesthetics of Planning Urban Defences Against Terrorism*, 2009), making it necessary to continue protecting crowded urban spaces and transportation networks indefinitely (Coaffee, *Protecting the Urban*, 2009) (Kantor, 2002). The expansion of security, surveillance, and monitoring measures in response to the threat of terrorism has led to the militarization of cities and urban flows in an effort to reduce vulnerabilities (Graham, 2002) (Stevenson, 2006) (Calkway & Baez, 2010) (Popescu & Jahamah, 2019) (Bos, 2020). These measures include fortifying high-risk targets and buildings with bollards, barriers, bunkers, and other temporary structures such as fences (Benton-Short, 2007). The increasing role of the military in various domestic tasks has also had a significant impact on the way cities and metropolitan regions are administered, designed, developed, and operated, as global military and geopolitical security have become more integrated into urban infrastructure (Graham, 2002).

London has gained significant attention for its counterterrorism efforts, due to its central role in the "war on terrorism" and its response to terrorist bombings. The city has implemented two tactics that combine territorial control with sophisticated surveillance through traffic and the environment, as well as a security infrastructure that openly promotes its role as a deterrent against terrorist attacks. These measures have become popular among counterterrorism planners in response to the increase in urban terrorism, particularly against highly serviced and vulnerable built environments in the modern world, often referred to as the "architecture of terror." (Coaffee, *Rings of Steel, Rings of Concrete and Rings of Confidence: Designing out Terrorism in Central London pre and post September 11th*, 2004)

The 2005 World Summit, which was attended by 150 states, discussed a global strategy for counterterrorism that became the foundation for a four-pillar approach to addressing this issue. The first pillar focused on addressing the circumstances that contribute to the growth of terrorism, while the second pillar emphasized measures to prevent and combat terrorism. The third pillar focused on improving state capacity and enhancing the United Nations' role in counterterrorism efforts. The fourth pillar of the global counterterrorism strategy involved actions to ensure adherence to the rule of law and respect for human rights around the world (Zimmerman, *The Responsibility to Protect and Counter-terrorism*, 2022).

There is a long history of risk and risk management, particularly when it comes to urban terrorism. To mitigate the threat of terrorism, many cities have implemented advanced security design features, such as Belfast and London's "ring of steel." Airport risk management has also helped to

prevent aviation attacks and hijackings. In addition to using situational crime prevention measures, other methods for managing terrorism risks have been developed, such as legal restrictions and law enforcement initiatives. It is crucial to understand the role of risk management in counterterrorism in order to effectively counter and mitigate the impact of terrorism on commercial and urban spaces and our critical infrastructure (McIlhatton, et al., 2019).

Efforts to combat terrorism should be seen as ongoing interventions that involve the participation of citizens in a collaborative discussion about the use of urban spaces, rather than as fixed physical solutions. The use of concrete barriers as a counterterrorism measure was meant to be a short-term solution. The implementation of these large structures serves to highlight the global philosophy of designing counterterrorism solutions (Jensen & Jensen, 2021).

CHAPTER 3: METHODOLOGY

3.1. Data Collection

A longitudinal study was conducted to analyze bibliometric and historical trends in urban terrorism. The publication used for the analysis was obtained from the Web of Science (WoS) on September 3, 2022, and included data on keyword citations, intuition, country, year, journals, and the top 10 most cited papers with authors. Graphical representation of the results was achieved using VOS viewer and ArcGIS. The Web of Science (WoS) is a renowned scientific database used by researchers worldwide. It has become a standard tool for finding and evaluating articles in a wide range of fields. The WoS covers over 15,000 journals and 50 million classified papers in 251 categories and 150 research topics. It is a reliable source of information, providing details such as titles, authors, institutions, countries, abstracts, keywords, references, citation counts, and impact factors (Ding & Yang, 2022). In this work, the Web of Science is supplemented by the VOS viewer, a software program that is used for co-citation and author keyword analysis. It allows for the creation and display of bibliometric networks, performing analysis and clustering at the level of individual publications. The visualizations used in the paper display the most significant terms and their relationships to co-occurrences in a cluster of articles (Eck & Waltman, 2017).

3.2. Data analytical method

3.2.1. Bibliometric analysis

Bibliometric analysis is a method that provides a comprehensive overview of large amounts of scholarly literature and is used to evaluate the productivity and research patterns of authors, journals, nations, and institutes (Rana I. , 2020) (Nunen, Li, Ponnet, & Reniers, 2018). It is also used to identify the most recent developments, research directions, and trends in a particular field of study. Bibliometric analysis originated in library and information science and is now widely used in various fields, such as management, economics, and health (Merigó & Yang, 2016). It is closely related to "infometrics" and "webometrics," which analyze various characteristics of the web. The main benefits of using bibliometric analysis include the ability to provide a comprehensive overview, identify knowledge gaps, generate original research ideas, and contribute to the field (Donthu, Kumar, Mukherjee, Pandey, & Lim, 2021).

This study applied four distinct approaches to analyze urban terrorism using the descriptive method. The first approach was a historical analysis to understand the relationship between

metropolitan areas and terrorism over time. The second approach was a keyword analysis of the authors' keywords to identify the nature, relationships, and ideas expressed by the authors, and to show the diversity and connections within the literature on urban terrorism. Co-occurrence keyword visualization maps were created using VOS viewer, with some filters applied, such as excluding geographic locations, to improve readability and understanding. The third approach was a citation analysis to determine the number of times a specific article has been cited. The fourth and final approach was a country and institutional analysis to identify the organizations and nations that frequently publish on urban terrorism. VOS viewer 1.6.18 was used for keyword analysis, Microsoft Excel 2019 was used to create tables and lists, and QGIS 3.12 was used for mapping.

3.2.2. Thematic analysis

Thematic analysis is a type of qualitative analysis used to analyze classifications and identify themes or patterns that relate to the data (Aronson, 1995) (Vaismoradi, Turunen, & Bondas, 2013). It is the most suitable method for finding different interpretations, as it adds a systematic component to data analysis. The thematic analysis enables the researcher to link a frequency analysis of a theme to a content study of the entire text, adding precision and strengthening the overall meaning. It also allows for a broader perspective on the potential of any issue (Alhojailan, 2012).

PRISMA framework was used to systematically identify and shortlist the relevant articles on urban terrorism (Figure 3.1). The research is performed on two platforms, i.e., Web of Science and Scopus, provided by the host institute. Research publications on urban terrorism were thoroughly searched in the databases using the keywords "urban" and "terrorism." The search criteria did not have a year restriction, but the oldest item found was from 1971 (Table 3.1). 500 articles were shortlisted from the Web of Science with only an article filter (on 3rd September 2022). A Scopus search was also performed, and filters of articles, journals, and published results were 24-28 August 2022, and 589 articles were retrieved. A total of 1089 articles were extracted for review having 484 duplicates. All records were exported into a text file, which included the title, author(s), year of publication, abstract, source title, affiliation, author's keywords, subject categories, language, and the number of citations for each publication, as well as all cited references. The data collected from Scopus and Web of Science databases were used for thematic analysis

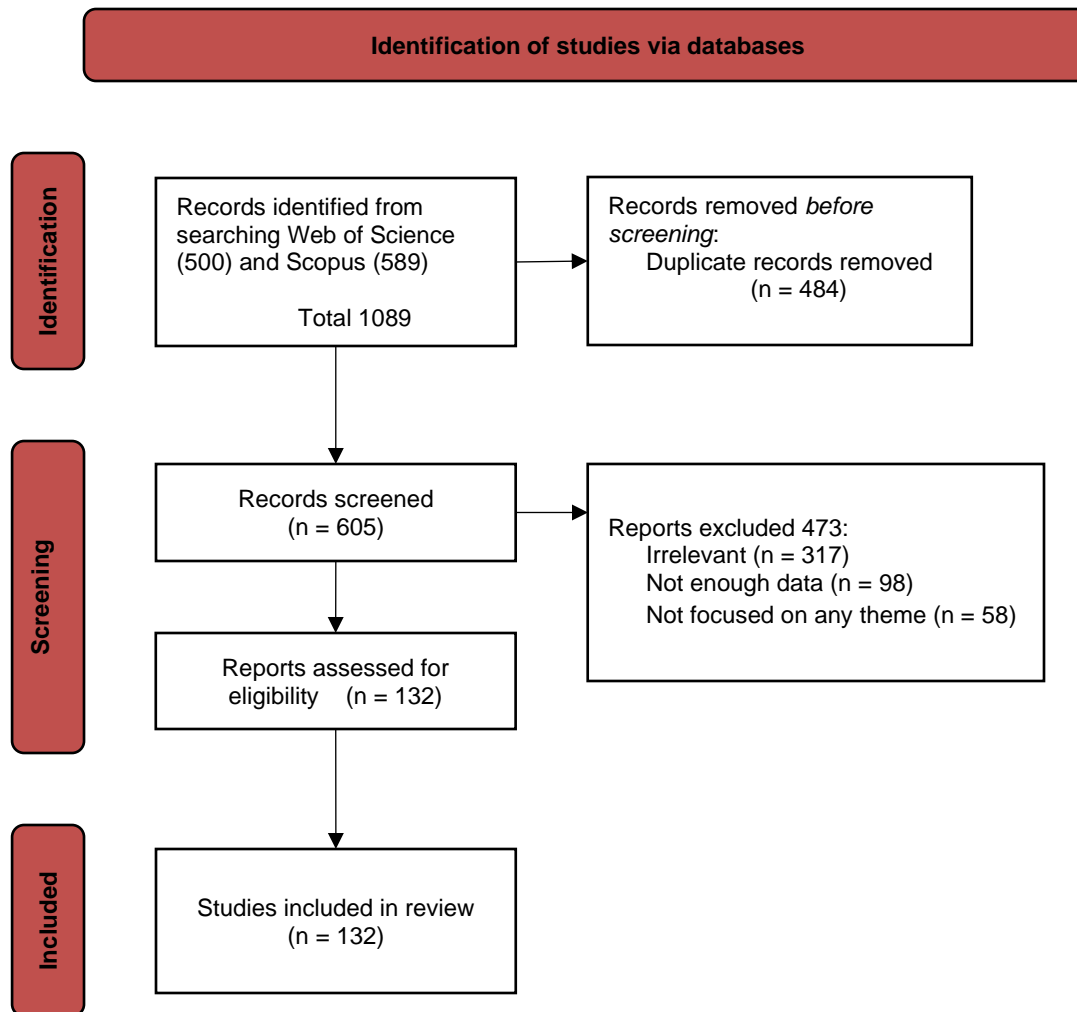


Figure 3. 1: PRISMA framework for systematic review

Table 3. 1: Search Criteria and Results

Keyword Used	Database	Document Type	Indexes searched	Years	Data Retrieved	Results
“urban” AND “terrorism”	Web of Science Core Collection and Scopus	Article	SCI-Expanded, SSCI, A&HCI, ESCI, Scopus	All years	03 September 2022	500

3.3. Study Area Selection

This study is conducted in five major cities i.e., Karachi, Lahore, Multan, Rawalpindi/Islamabad, and Peshawar shown in Figure 3.2. A questionnaire survey was designed and carried out to gather information for evaluating the risk perception of terrorism using an index-based technique. Subsequently, a regression analysis was performed to identify the determinants of independent variables (socioeconomic factors) on the dependent variable on perceived risk. Socioeconomic indicators used in regression analysis with terrorism risk perception were household size, age, educational level, monthly income, number of children under 10 years, persons with disability in the household, and past experiences among the selected metropolitan areas.

According to the 2017 census Karachi and Lahore are the most populated cities in Pakistan. Rawalpindi/Islamabad is the fifth, Multan is seventh and Peshawar is the ninth populated city in the country (Muqaddas, et al., 2019) (Basit, Sajjad, Khan, Ali, & Kurshid, 2018). Karachi constitutes approximately 10% of Pakistan's total population and contributes over 20% to the country's overall Gross Domestic Product (GDP) (Abbasi, 2013). Karachi occupies a pivotal position due to its cosmopolitan nature, serving as a hub for individuals from all backgrounds and cultures. The district is widely recognized for its high levels of literacy and moderate political stance. It is often regarded as the lifeline of the entire nation as the only operable port, and any disruption or disorder in Karachi has significant implications for the stability of Pakistan as a whole (Ahmed, Moulabuksh, & Malik, 2022). This makes it vulnerable to extremist organizations under the guise of ethnic, political, and religious affiliations to inflict violence (Saeed, Rahid, Rehman, Mobin, & Ahmed, 2012) (Syed, Saeed, & Martin, 2015). The occurrence of terrorist acts has significantly influenced the trajectory of the stock exchange, resulting in a notable fall in foreign investment from \$1.4 billion to \$910.20 million between 2008 and 2009. Moreover, during the corresponding fiscal term, the poverty level experienced an increase, reaching 41.4%. The attacks mentioned above have led to a notable escalation in the defense expenditures of the countries involved. Similarly, the Karachi Stock Exchange (KSE) had a decline of 4,675 points over one year (Bilal, Talib, Haq, Khan, & Islam, 2012).

Lahore is the second most populous city in Pakistan, with a population of 11 million. Lahore has emerged as a prominent focal point for acts of terrorism and is subject to extremist activities, including suicide attacks, widespread gun violence, and instances of mob violence. The city experienced an incidence of 15 terrorist attacks occurring between 2005 and 2008. These assaults

resulted in the unfortunate loss of 211 lives and inflicted injuries on over 1,000 individuals (Waheed & Ahmad, 2012). The Lahore easter suicide bombing that occurred on 27 March 2016, resulting in the loss of 72 lives and injuring nearly 300 individuals, stands out as one of the most tragic acts of violence in Pakistan's central region (Basit A. , 2016). To emphasize the security of the population, the Punjab Safe Authority Act of 2016 was implemented, leading to the establishment of 8000 video surveillance cameras and an Integrated Command, Control, and Communication Centre for 12 billion PKR (Rana & Bhatti, 2018).

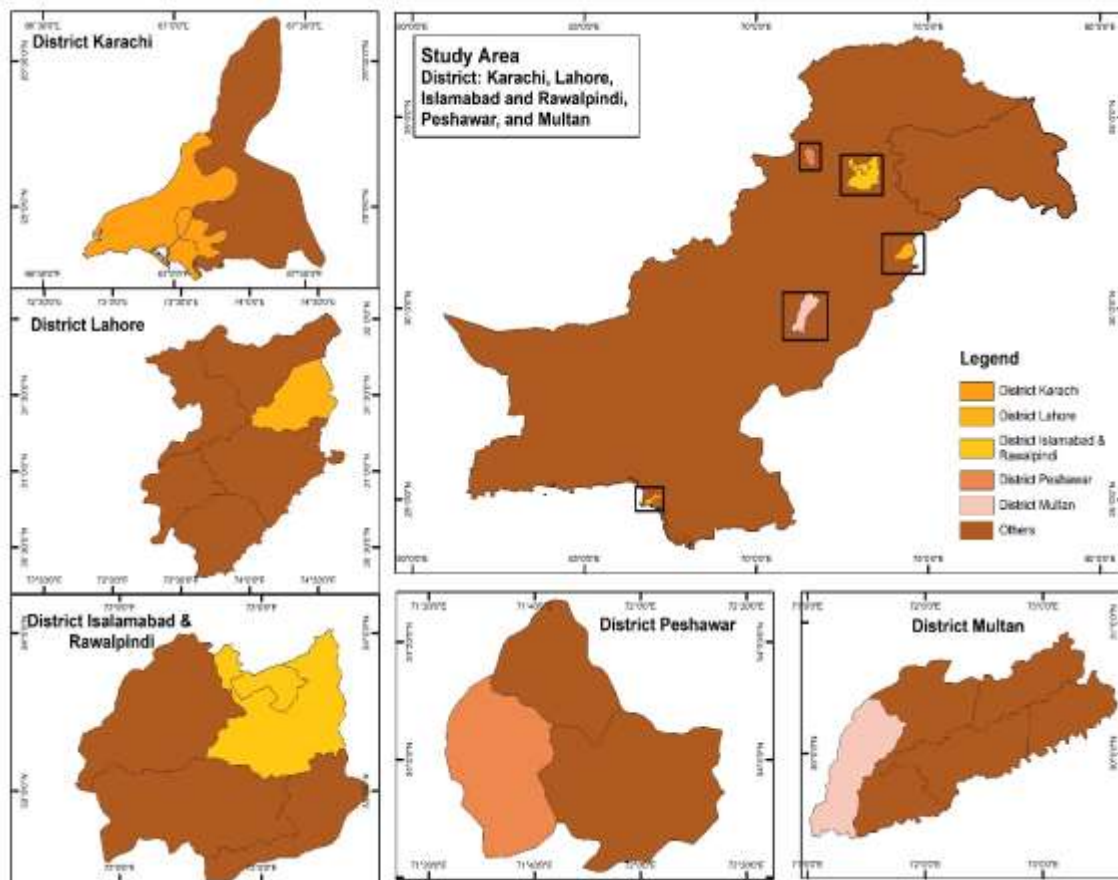


Figure 3. 2: Location of Selected Cities in Pakistan

Islamabad is situated at the base of the Margalla Mountains, which are part of the outer and lower Himalayas, whereas Rawalpindi is located in the Potohar Plateau with a combined area of about 1174.19 km² (Islam, Ali, Afzaal, Iqbal, & Zaidi, 2018). Islamabad serves as the capital city of the nation, whereas Rawalpindi holds significance as a prominent urban center within the province of Punjab. Additionally, their proximity to Wah Cantt, where several heavy industries and military establishments are strategically located causes both cities victim to acts of terrorism and leads to significant loss of life and property (Akram & Farooq, 2014). Al-Qa'ida and the Pakistani Taliban

have conducted terrorist attacks in the twin cities of Rawalpindi and Islamabad (Gregory S. , 2009). Multan stands among the third-largest city in Pakistan in terms of its geographical expanse and holds the seventh position in terms of population size. It is a prominent center for industry and commerce that benefits from a comprehensive network of air, train, road, and motorway connections to other critical urban centers (Hashim, Atta-ur-Rahman, Farooq, Nadeem, & Muneer, 2023) (Manzoor, Malik, Zubair, Griffiths, & Lukac, 2019). Multan is an essential division including Dera Ghazi Khan and Bahawalpur in South Punjab. The Punjab Police's Countering Terrorism Department has compiled a list of terrorist organizations, which identifies Multan as a stronghold for three prominent militant groups that exhibited extensive infiltration in the past (Shahab, 2021).

Peshawar, a significant urban center situated near the Pakistan-Afghanistan border, suffers from a notable frequency of terrorist incidents. It is located in close proximity to the Hindu Kush Mountain range, which reaches elevations of up to 7,000 meters or 25,000 feet. The Khyber Pass, situated at an altitude of 1,070 meters (or 3,510 feet) in Peshawar, serves as the sole passage that facilitates reasonably convenient passage across the northern portion of these mountains. The mountain pass has been the site of numerous terrorist attacks targeting convoys that connect the two capitals, Kabul and Islamabad (O'Loughlin, Witmer, & Linke, 2010) (Bergen, Hoffman, & Tiedemann, 2011). On December 16, 2014, a group of terrorists, associated with the Tehreek-i-Taliban Pakistan (TTP), carried out a terrorist attack on the Army Public School (APS) located in Peshawar. A total of 144 individuals were killed, with the majority of the casualties falling within the age range of 6 to 18, predominantly including children. At the end of the assault, a tragic event followed wherein an entire class of ninth-grade students was subjected to a massacre. It was the deadliest terrorist strike ever to occur in Pakistan (Ali & Khattab, 2019).

3.4. Sampling and Data Collection

A proportionate sampling method was used to identify the required number of samples. In April-July of 2023, a comprehensive random survey was carried out, and a total of 1300 valid and completed questionnaires were gathered from Lahore 424, Karachi 413, Rawalpindi/Islamabad 131, Multan 211 and Peshawar 121. All the incomplete, inaccurate, and damaged questionnaires are discarded. A mixed approach regarding the survey was adopted face to face as well a digital survey was conducted to save time. Physical surveys were conducted by visiting different educational institutes as well as public spaces while digital surveys were created utilizing Google

Forms, an internet platform, facilitating the collection of data. The form is restricted to only one respondent by limiting email to ensure authenticity and avoid any duplicate responses. The indicators and questions are given in Table 3.2.

Table 3. 2: Terrorism risk perception assessment domains and indicators

Sr.	Domain, indicator, and question asked
<i>Fear and likelihood</i>	
F-1	I think violence is increasing day by day
F-2	I am always afraid of an attack.
F-3	I felt scared of going out at certain times and places.
F-4	I have been worried about what might happen to my surroundings.
F-5	How much is your region likely to be affected?
F-6	I'm worried about my family/family members
F-7	How much will you and your household be likely to be affected by to terrorist attack?
<i>Impacts</i>	
I-1	I began to distrust people
I-2	I started to think that I was being observed
I-3	How much terrorism has changed your lifestyle?
I-4	Terrorism has changed your relationships with friends and neighbors?
I-5	I have become more distrustful and suspicious as a result of terrorist attacks.
I-6	I avoid mixing with certain groups or people
<i>Trust and preparedness</i>	
T-1	What level of understanding do you have of emergency protocols?
T-2	What do you think is your capability to cope with terrorist attacks
T-3	I will cooperate with Govt/the security agency to action against Terrorist
T-4	How much do you satisfied with govt policies for reducing terrorism

3.5. Data Analysis

Socioeconomic indicators that regressed with terrorism risk perception are; age, monthly income, household size, educational level, past experiences, number of children under 10 years, and persons with disabilities in the household shown in table 4.1. The age is classified into 3 groups, (1= less than or equal to 21, 2=between 22-28, 3=29 and older, and then 29). Monthly household

income is also divided into 3 categories (1= less than one hundred thousand (lac), 2= one to two hundred thousand, 3= greater than two hundred thousand). The size of the household involves adults as well as infants. It is divided into 3 subcategories based on the number of family members (1=less than or equal to five, 2= five to ten, 3= ten and more family members). The education level of the respondents is divided based on 3 primary education levels by keeping the Pakistani education system in mind i.e., (1= less than intermediate/A levels or 12th standard, 2= having bachelor’s degree, 3= individuals with masters or above). Past experience and Persons with Disabilities in The Household are taken as binomials (1= yes. 0=No).

The indications were assessed using a 5-point Likert scale that quantified risk perception, with 1 being its lowest value and 5 indicating the highest value. Mean values were obtained for each of the variables of risk perception to normalize the original values to a scale of 1-5. Equation 1 represents the mean value calculated for each component, including fear and likelihood, impacts, trust, and readiness. Using these given variables, the calculation for overall risk perception was determined using Equation 2.

$$TRI = \frac{W1 + W2 + W3 + W4 + \dots + Wn}{n} \quad \text{Equation 1}$$

$$Risk\ Perception = \frac{Fear\ and\ Likelihood + Impacts + Trust\ and\ preparedness}{3} \quad \text{Equation 2}$$

The response from fear and Likelihood, impacts and trust, and preparedness are divided into three categories low, moderate, and high using the equal class interval data classification method. The range with an equal interval of 1.3 is given in the table below.

Table 3. 3: Range of the responses

Category	Range
Low	<2.7
Moderate	2.7-3.9
High	3.9<

ANOVA is a statistical technique used to assess the presence of the relationship between an IV, or independent variable, and a dependent variable (DV), in which every respondent is assigned to just one category of the independent factor (DeCoster & Claypool, 2004) (Ott & Longnecker, 2015). In order to determine the presence of a correlation between the independent variable (IV) and the dependent variable (DV), a one-way between-subjects analysis of variance (ANOVA) is

conducted to examine whether the means of all the groups are equal. If there are any disparities among the averages, it indicates that the value of the dependent variable is dependent upon the value of the independent variable.

In an ANOVA, the independent variable (IV) is commonly known as a factor, while the distinct groups that make up the IV can be referred to as the various levels of the variable. A one-way ANOVA is alternatively referred to as a single-factor ANOVA. A one-way analysis of variance (ANOVA) with two groups is similar to an independent-sample t-test. The p-values of both tests will be identical, and the F statistic obtained from the ANOVA will be equivalent to the square of the t statistic obtained from the t-test.

Regression analysis is a statistical method used to determine the specific variable that has a significant impact on a set of variables (Skyles, 1993) (Gallo, 2015). It provides responses such as which elements are the most important and which are not, and how do those variables mutually influence one another. The study utilizes multiple regression to understand the complex relationship between the dependent variable and the independent variable(s). It can isolate the unique contribution of each independent variable to the dependent variable. Multiple linear regression analysis was employed to study the influence of socioeconomic factors, past experiences, and education level (independent variables) on risk perception (dependent variable).

$$y_i = \beta_0 + \beta_1x_1 + \beta_2x_2 + \dots + \beta_nx_n + \varepsilon$$

where,

y_i = dependent variable.

x_n = explanatory variables.

β_0 = y-intercept (constant term).

β_n = slope coefficients for each explanatory variable.

ε = the model's error term (also known as the residuals).

A multiple regression model was carried out to identify the variables that impact the perception of terrorism risk in specific metropolitan cities of Pakistan. This involves examining measures such as R^2 (the coefficient of determination), adjusted R^2 , and significance tests for the overall model and individual coefficients. The R-value is .060a while the R square value .004. The model's goodness-of-fit was assessed by examining the significance of the F-value. The regression test showed a statistically significant f-value ($F = 4.661$), indicating that the indicators used are suitable for describing the model. It's also assess how well the multiple regression model fits the data.

Chapter 4: Terrorism Risk Perception

4.1. Socioeconomic profile of respondents

In terms of age, 44.1% of respondents are 21 or less than 21, 44.3% are between the age group 22 to 28 years old and 11.6% are older than 29. The monthly income of households is categorized into three classes given in Table 3. Approximately 53.2% of respondents had an income close to one lac per month, while 31.7% fell into the one to two lac income range. However, 15.1% have a monthly income of over two lacs. The majority of the household i.e., 53.1% has between 5-10 family members. 36.3 % have less than 5 family members while 1.6% have more than 5. Similarly, 3.9% of the household has a person with a disability. Of the total of 1300 respondents, 80.9% have experienced some form of terrorist act while 19.1% have no experience in the past with terrorism. The education level of the respondents is also divided based on the famous education division in Pakistan that is intermediate or less than 12th standard), bachelor, and master. 9.2% of the respondents have done intermediate while a majority of the respondents 69.2% have done their bachelor's. Similarly, 21.6% of the responses are from individuals who have master's or higher education.

Table 4. 1: Socioeconomic characteristics of the respondents

Socioeconomic characteristics		Lahore		Karachi		Rawalpindi/ Islamabad		Peshawar		Multan		Combined	
	Ranges	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Age (in years)	<21	193	45.5	201	48.7	56	42.7	20	16.5	103	48.8	573	44.1
	22-28	188	44.3	166	40.2	54	41.2	71	58.7	97	46.0	576	44.3
	29<	43	10.1	46	11.1	21	16.0	30	24.8	11	5.2	151	11.6
	Mean	23.18		23.11		24.50		26.07		22.32		23.42	
	Std. Dev	5.01		5.06		6.77		5.05		3.60		5.13	
Average monthly household income	<100,000 PKR	230	54.2	232	56.2	52	39.7	61	50.4	117	55.5	692	53.2
	100,000-200,000	131	30.9	128	31.0	54	41.2	41	33.9	58	27.5	412	31.7
	> 200,000	63	14.9	53	12.8	25	19.1	19	15.7	36	17.1	196	15.1
	Mean	149793.63		130728.81		170480.92		141710.74		141203.79		143675.00	
	Std. Dev	122178.90		104503.47		117157.97		86592.86		107951.49		111419.73	
Household size	<5	147	34.7	183	44.3	52	39.7	31	25.6	59	28.0	472	36.3
	5-10	231	54.5	201	48.7	75	57.3	56	46.3	127	60.2	690	53.1
	10<	46	10.8	29	7.0	4	3.1	34	28.1	25	11.8	138	1.6
	Mean	6.79		6.31		6.31		8.26		7.00		6.76	
Std. Dev	2.70		2.51		2.07		3.62		2.66		2.73		
	Yes	71	16.7	83	20.1	21	16.0	50	41.3	23	10.9	248	80.9

Past experience with terror attack	No	353	83.3	330	79.9	110	84.0	71	58.7	188	89.1	1052	19.1
	Mean	0.17		0.20		0.16		0.41		0.11		0.19	
	Std. Dev	0.37		0.40		0.37		0.49		0.31		0.39	
Education level of the respondent	<Intermediate	34	8.0	52	12.6	9	6.9	5	4.1	19	9.0	119	9.2
	Bachelor	316	74.5	301	72.9	77	58.8	59	48.8	146	69.2	899	69.2
	>Masters	74	17.5	60	14.6	45	34.3	57	47.1	46	21.8	282	21.6
Number of children under 10 years	0	239	56.4	286	69.2	94	71.8	58	47.9	125	59.2	802	61.7
	1	85	20	81	19.6	21	16.0	20	16.5	39	18.5	246	18.9
	1<	100	23.6	46	11.1	16	12.2	43	35.5	47	22.3	252	19.4
	Mean	0.86		0.47		0.47		1.21		0.73		0.71	
	Std. Dev	1.25		0.87		0.89		1.48		1.05		1.12	
Persons with disabilities in the household	Yes	12	2.8	13	3.1	4	3.1	9	7.4	12	5.7	50	3.9
	No	412	97.2	400	96.9	127	96.9	112	92.6	199	94.3	1250	96.2
	Mean	0.03		0.03		0.03		0.08		0.06		0.04	
	Std. Dev	0.17		0.17		0.17		0.31		0.23		0.20	

4.2. Fear and likelihood

About 15% of the respondents in Lahore exhibit relatively small levels of stress and hold the view that the potential of a terrorist hit in their hometown is minimal. Conversely, a significant majority of individuals, that is 66%, experience a substantial amount of fear. 19% of the respondents in Lahore demonstrate elevated levels of worry and are convinced of the certainty of a high degree of terrorist attacks within the region as shown in Figure 4.1.

Karachi has the highest ranking in the global terrorism index and has witnessed a more significant percentage of acts of violence juxtaposed to any other city in the survey since the country gained independence. A substantial majority of 36% of the population in Karachi harbors a fear of a potential terrorist strike and perceives the potential of terrorist activity to be high. 56% of the population exhibits a significant degree of fear and holds the belief that there is a reasonable chance of terrorist action. The statistic indicates that just 8% of the respondents in Karachi have a low level of fear and think their chances are pretty low.

60% of the respondents from Rawalpindi and Islamabad collectively experience a moderate sense of terror and hold a significant belief that there is a chance of a terrorist strike occurring in their community. 19% of the participants exhibit an overwhelming amount of fear, while 21% hold the contrasting view of encountering such occurrences is relatively low. The Twin Cities have high security due to the presence of foreign embassies, the seat of government, and the headquarters of essential security organizations in the country.

Within urban areas, societies that are marked by conflicts between ethnic groups, religious divisions, or political instability tend to have heightened levels of risk perceptio. Urban areas located in regions impacted by continuous conflict or geopolitical tensions may view terrorism as a more imminent and readily apparent risk. Peshawar is an example of it where dissemination of extremist beliefs and formation of terrorist networks are influenced by the perception of security and susceptibility in metropolitan areas.

The uncertainty among the respondents is most pronounced in the inhabitants of Peshawar, with 41% expressing a conviction in an increased chance of a terrorist attack occurring in their city. 49% of the respondents take into account both the level of anxiety and the likelihood of occurrence, however, only 10% of the respondents have lower levels of fear compared to their fellow residents.

It is somewhat surprising that 21% of the participants express an elevated feeling of apprehension and perceive a high probability of a terrorist attack in Multan. Additionally, 63% of the participants view the possibility of a terrorist as considerable. 16% of the population lowered fear responses along with decreased activities.

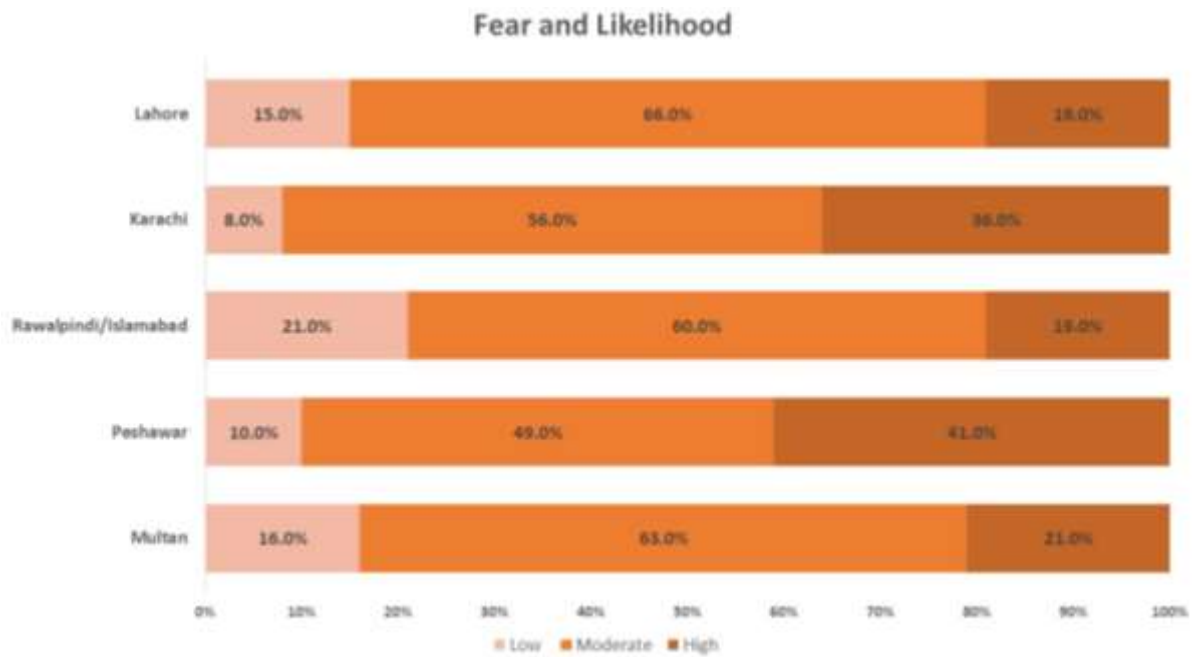


Figure 4. 1: Fear and likelihood in public around major cities of Pakistan.

4.3. Impacts

12% of the respondents in Lahore acknowledge experiencing significant consequences of terrorism while 67% say that their lifestyle has been significantly affected as represented in Figure 3. 21% of the participants hold the notion that they are at minimal risk of experiencing a terrorist attack. Whereas only 19 % of the responders from Karachi anticipate relatively insignificant impacts with 71% experiencing a reasonable effect of terrorism on their lifestyle, while 10% feel that terrorism has had a profound effect on their lives.

Rawalpindi and Islamabad collectively perceive significant repercussions of terrorist attacks, on their lives as 60% of the respondents reported while half of them (30% of individuals) say that the impact of such attacks on their lives is minimal. Merely 10% of individuals perceive themselves as impacted by terrorism. 17% of the respondents from Peshawar say that their lives have been significantly affected by terrorist attacks, while 69% believe that terrorism has had a considerable effect on their lives. 14% of the responses indicate that individuals are either unaffected or minimally impacted by terrorism.

In Multan, 15% of the population believes that their lives have been greatly affected by terrorism. The majority of respondents feel that they have been significantly impacted by terrorism, while just 23% of them believe that they have not been significantly affected.

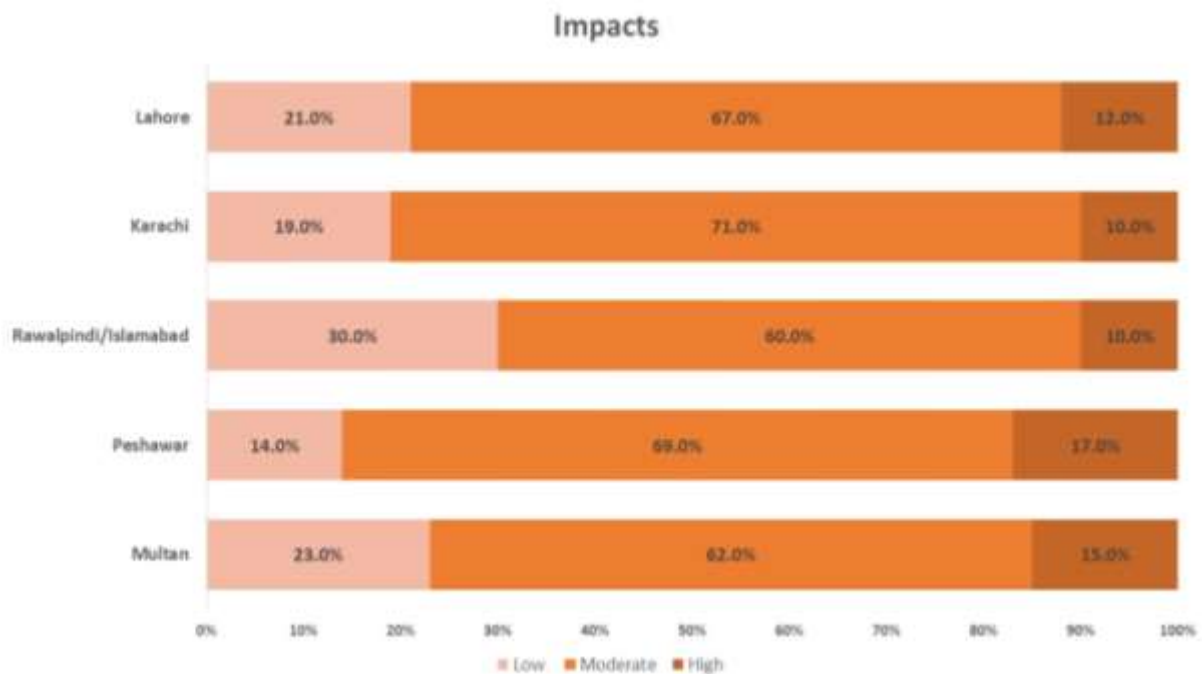


Figure 4. 2: Impact of terrorism in metropolitan cities of Pakistan

4.4. Trust and Preparedness

11% of the individuals surveyed in Lahore exhibit an immense amount of trust and readiness in the face of a potential act of terrorism. 65% of individuals exhibit a significant degree of trust and readiness in government services, whereas only 24% possess little or almost no optimism regarding government services and perceive themselves as inadequately prepared in the case of terrorism as given in Figure 4.3.

Approximately 61% of the respondents from Karachi express concern about terrorism and believe they are sufficiently prepared. They also have a significant level of faith in the government. 6% of participants hold the belief that they are well equipped and rely on the government for preventive measures. 33% of individuals hold the belief that they cannot handle the violent situation and exhibit significantly diminished levels of confidence in government initiatives and services.

A combined total of 9% of respondents from Rawalpindi and Islamabad believe that they possess an excellent degree of preparedness and trust in the government. On the other hand, 65% of the respondents consider themselves to be somewhat prepared for terrorist activities. A significant proportion of individuals, precisely 26%, have the belief that they need more resources or possess a reduced level of confidence in government programs.

Cities that possess a robust security infrastructure and aggressive law enforcement agencies have the potential to foster increased trust and resilience among their inhabitants (Huddy, Feldman, Taber, & Lahav, 2005). The manner in which governments address terrorism has a

substantial effect on how people perceive the level of risk and their trust in the security of cities. Lahore and the twin cities of Rawalpindi and Islamabad a fine example of that phenomenon.

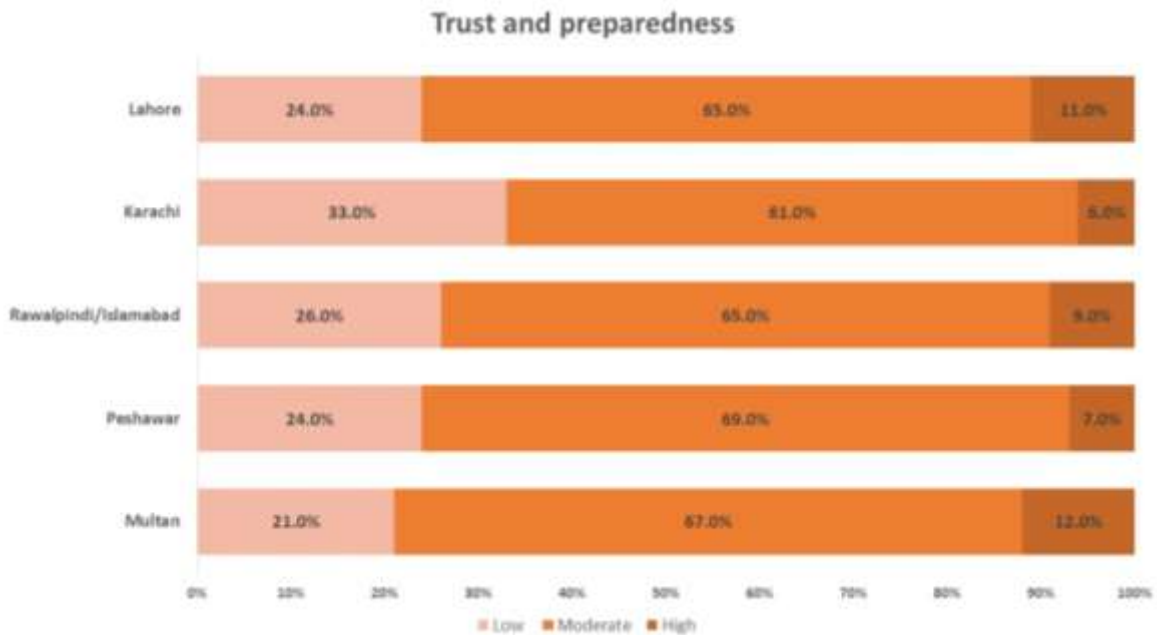


Figure 4. 3: Trust and preparedness in metropolitan cities of Pakistan

Remarkably, 69% of those surveyed in Peshawar feel sufficiently equipped to handle terrorist activities, whereas 24% lack confidence in government services or believe they are unprepared for terrorist incidents. Merely 7% of individuals exhibit trust in government services and a considerable degree of readiness. In Multan, a similar trend is evident, with 67% of the participants expressing confidence in their preparedness and displaying a moderate level of reliance on the government. 12% of individuals possess an extensive level of trust in the government's competence and readiness, whilst 21% of individuals hold a notably negative view of the government's ability to mitigate terrorism and improve preparedness.

4.5. Terrorism Risk Index

The Terrorism Risk Perception Index is a measurement that is used to evaluate the perception of terrorism risk among individuals or communities. The measure assesses individuals' perception of their vulnerability to terrorist attacks and the perceived probability of such attacks taking place shown in Figure 4.4. This index has been formed by using equation 2 which is the average of fear and likelihood, trust and preparedness, and impacts on society.

13% of respondents from Lahore have a low risk of terrorism, while 80% of those people have considerable or moderate Levels of terrorism risk in their city, while only 7% of the people have a high-risk perception. In Karachi, 11% of respondents have a low risk of terrorism, 83% have a significant or moderate risk percentage about terrorism in their city, and only 6% have a high-risk impression same as Multan.

The responses from the Twin Cities show that 19% of the people have very low while the majority of them have a medium level of risk of terrorism and only 4% of the people have signs of elevated risk. 7.9% of respondents from Peshawar have a minimal risk of terrorism, whereas 83% of the remaining individuals face a considerable level of terrorism risk. Conversely, a mere 6% of individuals hold a perspective that is characterized by a high level of danger.

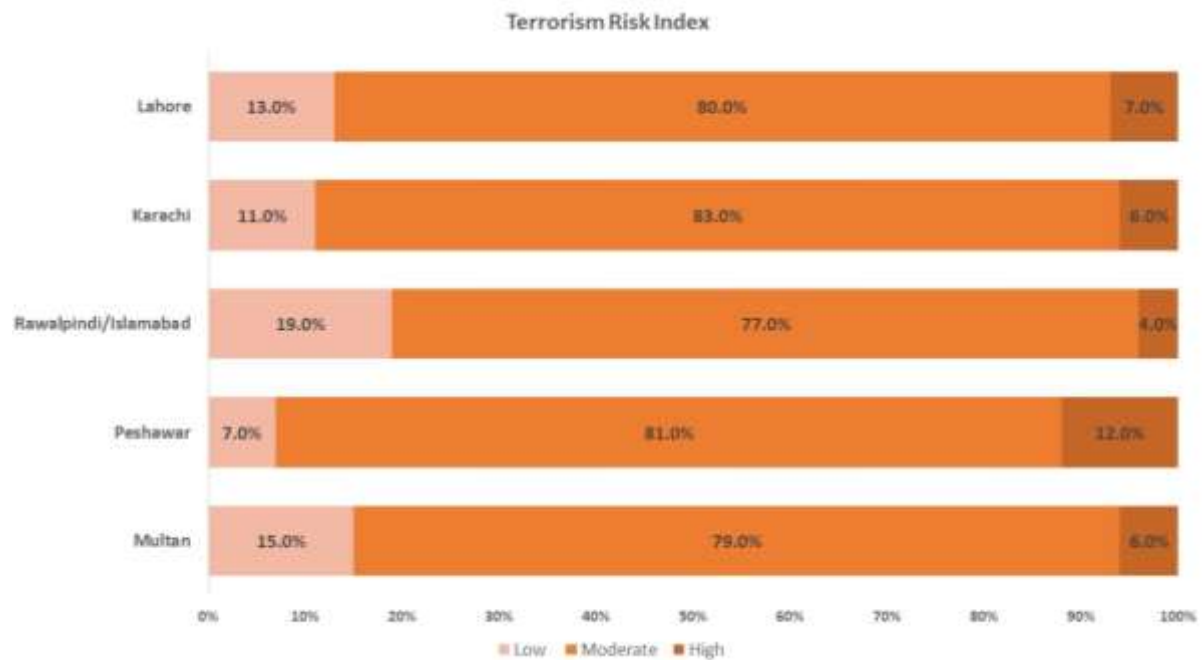


Figure 4. 4: Terrorism Risk Perception Index

Table 4. 2: Mean and standard deviation values of the indicators used in measuring

Indicators	Descriptive Statistics	Lahore	Karachi	Rawalpindi/ Islamabad	Peshawar	Multan	ANOVA	Combined
<i>Fear and likelihood</i>								
Violence is increasing	Mean	4.05	4.05	4.16	4.31	3.97	2.28	4.07
	Std. Dev	1.14	1.08	1.04	0.90	1.18		1.10
Afraid of an attack	Mean	3.41	3.42	3.43	3.48	3.43	0.99	3.42
	Std. Dev	1.15	1.13	1.18	1.16	1.09		1.14
Scared of going out	Mean	3.49	3.39	3.28	3.48	3.39	1.10	3.42
	Std. Dev	1.09	1.15	1.10	1.23	1.26		1.15
Worried about what might happen to my surroundings	Mean	3.62	3.48	3.59	3.60	3.56	1.05	3.56
	Std. Dev	0.98	1.08	1.02	1.10	1.05		1.04
Region likely to be affected	Mean	3.20	3.05	3.05	3.15	2.94	1.60	3.09
	Std. Dev	1.34	1.30	1.32	1.43	1.44		1.35
I worried about my family	Mean	3.88	3.82	3.96	4.07	3.89	1.53	3.89
	Std. Dev	1.00	1.08	0.96	0.94	1.00		1.02
Household affected due to terrorist attack	Mean	2.84	2.82	2.85	2.91	2.68	0.83	2.82
	Std. Dev	1.27	1.22	1.30	1.32	1.29		1.26
<i>Impacts</i>								
Distrust people	Mean	3.29	3.25	3.34	3.46	3.31	0.96	3.30
	Std. Dev	1.07	1.09	1.12	1.10	1.08		1.09

Being Observed	Mean	3.00	2.97	3.16	3.06	3.06	0.84	3.02
	Std. Dev	1.09	1.12	1.10	1.06	1.10		1.10
Terrorism has changed the lifestyle	Mean	2.85	2.85	2.93	2.88	2.83	0.18	2.86
	Std. Dev	1.19	1.22	1.18	1.29	1.22		1.21
Changed relationships with friends and neighbors	Mean	2.59	2.56	2.71	2.74	2.64	0.82	2.61
	Std. Dev	1.18	1.23	1.24	1.34	1.25		1.23
Distrustful due to suspicious	Mean	3.51	3.53	3.56	3.61	3.48	0.33	3.53
	Std. Dev	1.04	1.07	1.08	1.07	1.05		1.06
Avoid mixing in society	Mean	3.45	3.47	3.53	3.54	3.51	0.30	3.48
	Std. Dev	1.06	1.09	1.05	1.16	1.02		1.07
<i>Trust and preparedness</i>								
Understanding of emergency protocols	Mean	2.75	2.73	2.71	2.77	2.65	0.40	2.73
	Std. Dev	1.06	1.09	1.05	1.09	1.05		1.07
Capability to cope	Mean	2.75	2.71	2.73	2.60	2.71	0.51	2.71
	Std. Dev	1.04	1.08	1.03	1.09	1.03		1.05
Cooperate with govt	Mean	3.98	3.94	4.00	3.98	3.94	0.19	3.96
	Std. Dev	0.90	0.95	0.81	0.97	0.96		0.92
Satisfied with govt policies	Mean	2.74	2.52	2.72	2.79	2.76	2.38	2.68
	Std. Dev	1.20	1.22	1.27	1.29	1.31		1.24

4.6. Factors affecting terrorism risk perception

Cities that have experienced direct terrorist attacks in the past tend to exhibit elevated levels of terrorism risk perception. It's not just in Pakistan but cities throughout the world perceive terrorism risk in distinct ways for several reasons, which include past experiences, cultural backgrounds, sociopolitical environments, media influences, and governmental policies. [102]. Results revealed that age, Average monthly household income, Household size, Number of children under 10 years, and Persons with disabilities in the household do not have a significant influence on risk perception. This implies that respondents from selected districts have equal levels of terrorism risk perception. Even past experience with terror attacks is not a compelling factor in defining terrorism risk perception as per the ANOVA test. The education level of the respondent is the only primary factor in terrorism risk perception.

Several studies represent education as the main or one of the primary determinants of risk perception such as (Rundmo, 2002) that shows that a higher level of education has a better understanding of their surroundings. It even discusses variations between the level of education of respondents I.e., who has attended college or university and which don't. This is also due to an increased level of knowledge as educated individuals tend to possess more excellent knowledge about hazards and their potential consequences (Siegrist & Cvetkovich, 200). According to (Yim & Vaganov, 2003) information processing is almost based on a person's general knowledge and beliefs about the world, serving as the foundation for rapid, logical interpretations.

(Peterson, Helweg-Larsen, Volpp, & Kimmel, 2012) found that higher levels of education correlate with more comparative optimism hence directly affecting the risk perception of the respondents. (Fischhoff, Slovic, Lichtenstein, Read, & Combs, 1978) recognizes that education has a significant influence in shaping people's views on risk, indicating that educated individuals are more inclined to evaluate hazards using factual data and scientific proof. Education is so important that it directly enhances the level of communication. (Breakwell, 2000) examines the variables that impact the efficacy of risk communication tactics. Education has a vital influence on how individuals understand and utilize risk information, emphasizing its importance in improving risk communication and encouraging well-informed decision-making.

Past experiences with terrorism can also affect risk perception in regions with a history of terrorist attacks which may perceive the risk differently from those who do not (Huddy & Feldman, Americans respond politically to 9/11: understanding the impact of the terrorist attacks and their aftermath., 2011). An individual's sense of terrorist risk is influenced by their

cultural background and social identity such as Religion, ethnicity, and political affiliation might impact individuals' perceptions of terrorism (Huddy & Khatib, American patriotism, national identity, and political involvement., 2007) (Joffe, 2003). Social media platforms have a substantial impact on the distribution of information and the formulation of public discussions around matters related to terrorism (Russell Neuman, Guggenheim, Mo Jang, & Bae, 2014) (Downing, Gerwens, & Dron, 2022). The manipulation of media narratives and the use of sensationalism can intensify feelings of fear and the perception of risk (Tsfati & Cappella, 2003) (Slovic & Peters, 2006).

Individuals experiencing economic uncertainty might perceive terrorism as a more severe risk due to worries about personal well-being, financial stability, and availability of resources. The fear of terrorism might be intensified by economic instability (Blomberg, Hess, & Weerapana, 2007). Unemployment or job insecurity can worsen emotions of insecurity and heighten the perceived risk of terrorism. Unemployment and underemployment might potentially fuel societal instability and dissatisfaction, hence intensifying fears around terrorism (Eckstein & Tsiddon, 2004).

Gender also affects terrorism risk perception as a study indicates that women generally view terrorism as a more significant danger than males, primarily because of variations in their perception of risk and vulnerability to fear-inducing stimuli (Sjöberg, 2005). Some studies even show that age is one of the critical determinants of risk perception in tourism. Younger individuals are more likely to view terrorism as an imminent threat because they have more exposure to media and social media platforms, which magnify exaggerated reporting of terrorist occurrences. Older adults due to their experience of living through periods of political instability or terrorist acts, may have a different perception of terrorism. They may view it as a less urgent threat compared to younger individuals (Scott, Poulin, & Silver, 2013).

Table 4. 3: ANOVA Test

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.139	1	1.139	4.661	.031 ^b
	Residual	317.090	1298	.244		
	Total	318.229	1299			
a. Dependent Variable: Index						
b. Predictors: (Constant), Education level of respondent						

Table 4. 4: Correlations of the indicators used in Regression Analysis

Indicators	Age (in years)	Average monthly household income	Size of household	Past experience with terror attack	Education level of the respondent	Number of children under 10 years	Persons with disability in house
Age (in years)	.	.000	.094	.000	.000	.000	.080
Average monthly household income	.000	.	.000	.350	.000	.000	.417
Size of household	.094	.000	.	.397	.238	.000	.002
Past experience with terror attack	.000	.350	.397	.	.003	.099	.209
Education level of the respondent	.000	.000	.238	.003	.	.001	.051
Number of children under 10 yrs.	.000	.000	.000	.099	.001	.	.087
Persons with disability in the household	.080	.417	.002	.209	.051	.087	.
Index	.	.252	.495	.329	.372	.016	.297

CHAPTER 5: TERRORISM AND PUBLIC CAPACITIES

5.1. Past experience with terrorist attacks

It is critical to understand the significance of past terrorist experiences as they can provide crucial details that can help in dealing with terrorist threats in the future. The binary data presented in Figure 5.1 shows the public's previous experience with terrorist strikes in Lahore, Karachi, Rawalpindi/Islamabad, Peshawar, and Multan. Multan has the highest reported at 88.6% who doesn't face any terrorist activity and also the lowest at 11.4% who directly experienced terrorism in the past. Peshawar on the other hand has the highest reported incidents that are directly faced by respondents and the lowest of 57.8% of the respondents have never experienced direct terrorist activity in the past. Lahore and the Twin Cities of Rawalpindi/Islamabad have nearly equal numbers of respondents who never experienced a terrorist attack in the past i.e., 83% and 83.2% while those who faced terrorist activities are 17% from Lahore and 16.8% from Rawalpindi. Astonishingly respondents from Karachi reported that 79.7% of them have never experienced terrorist activities while only 20.3% have to face the trauma or experienced a direct terror attack in their life.

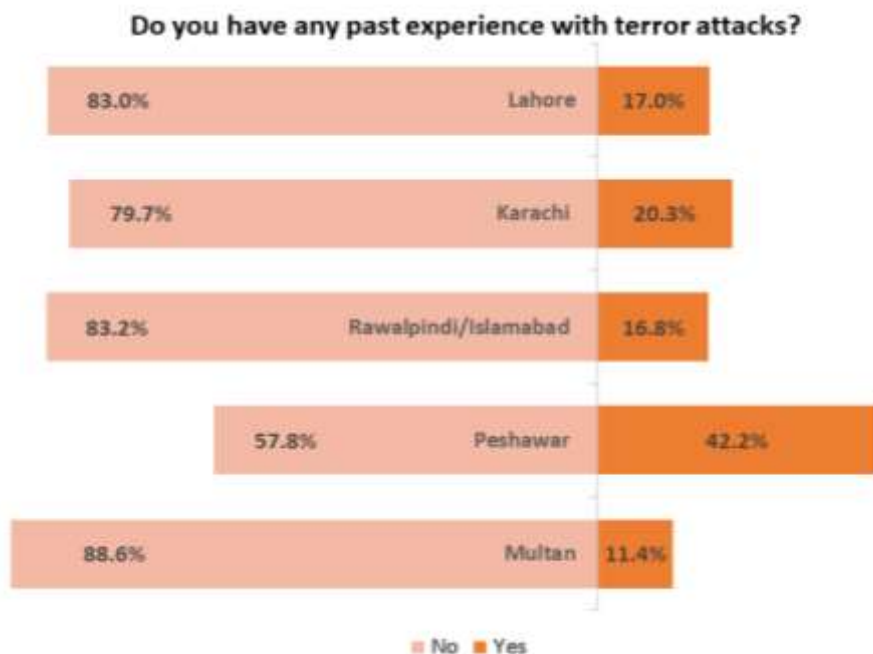


Figure 5. 1: Respondents' experience in the past with terror attacks

5.2. Health Insurance and Terrorism

Health insurance policies generally provide coverage for medical expenses resulting from injuries sustained in terrorist acts. These costs may encompass hospitalization, surgical procedures, drugs, rehabilitation, and mental health treatments (Ericson & Doyle, 2004). The

respondents' preferences for health insurance in Lahore, Karachi, Rawalpindi/Islamabad, Peshawar, and Multan are shown in Figure 5.2. According to the survey, Peshawar has the highest percentage i.e., 80.3% of people without health insurance. In contrast, Lahore has the highest number of respondents covered by some health insurance. The Twin Cities of Rawalpindi/Islamabad and Karachi have almost the same proportion of respondents with health insurance, precisely 79.6% and 78.7% respectively. Respondents from Multan and Lahore have approximately the same number of people covered with insurance i.e., 27.7% and 29.2% respectively.

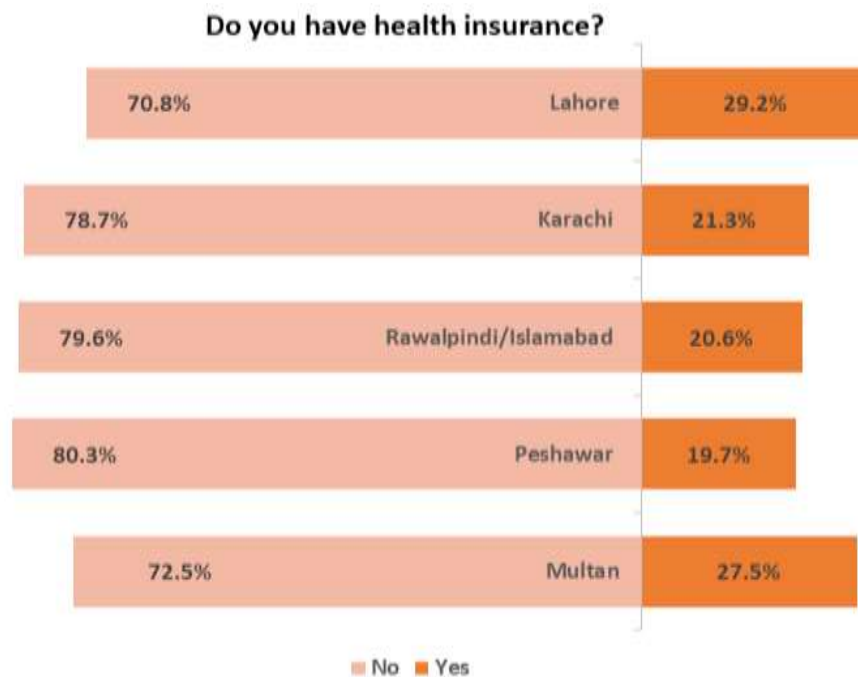


Figure 5. 2: Response against health insurance from selected cities

5.3. First aid and/or public awareness programs among respondents

Individuals with first aid training can provide rapid assistance to victims of terrorist attacks by delivering primary medical care such as blood loss prevention, fracture stabilization, and cardiopulmonary resuscitation (CPR) (Baetzner, et al., 2022). The statistical information shown in Figure 5.3 (a) shows the first aid training of people in Lahore, Karachi, Rawalpindi/Islamabad, Peshawar, and Multan. The percentage of people in Karachi who have never been to or never attended first aid training is the highest at 76.0%, while the lowest rate is in Multan where 66.6% say they have no idea regarding first aid training or such activities. Nearly the same percentage of people in Lahore 71.3% and Rawalpindi/Islamabad 70.0% have the same experience. In contrast, Multan has the highest of 33.4% while 30% of Peshawar and Rawalpindi/Islamabad residents have some training regarding first aid. Karachi has the lowest number of respondents who have been to a first aid training session among the surveyed cities.

Training exercises improve public awareness of the threat posed by terrorism, as citizens play an active part in preventing and responding to terrorism. drills and exercises that teach them about safety measures, emergency protocols, and how to report suspicious activity (Skryabina, Betts, Reedy, Riley, & Amlôt, 2020). The responses of respondents regarding drills or training they attended for terrorist attacks in their respective locations are depicted in Figure 5.3 (b). The majority of the population (94.2%) in Karachi has never attended or been to an awareness/drill program from security agencies or any government platform. It makes Multan the highest number of people with sound knowledge of drills. Lahore and Peshawar have the same response as 83.7% and 83.2% of respondents have yet to attend such activity.

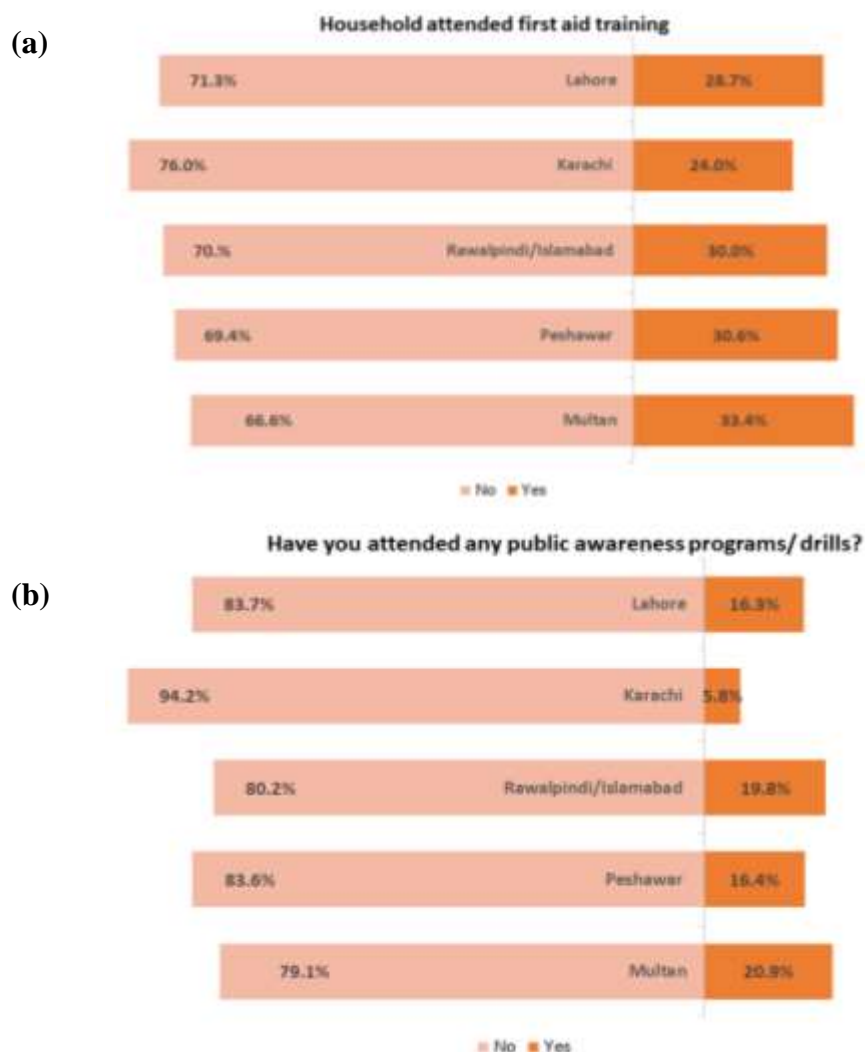


Figure 5. 3: Attended any First aid and public awareness programs/drills

5.4. Knowledge of emergency protocols

Effective emergency protocols contribute to reducing fatalities and injuries by facilitating prompt and systematic evacuation, providing medical aid to those injured, and setting up protection around the afflicted region to avert additional damage. A solid grasp of emergency protocols allows individuals to react promptly and suitably in the face of terrorism, potentially preserving lives in the immediate aftermath of the event (Perry & Lindell, 2003). The knowledge of emergency protocol to the general populace regarding acts of terrorism in the Pakistani cities of Lahore, Karachi, Rawalpindi/Islamabad, Peshawar, and Multan is given in Figure 5.4. The Twin Cities of Rawalpindi/Islamabad exhibit the highest proportions about 62.6% of respondents having no awareness regarding emergency protocol in the event of a Terrorist attack. Surprisingly Peshawar (52.1%) and Multan (51.2%) with the highest percentage of residents who know emergency protocol. Lahore is also along the Multan and Peshawar concerning several people understanding emergency protocols. However, Lahore and Karachi have nearly equal numbers of respondents who have no idea what to do in case of a terrorist attack i.e., 49.3% and 51.3%.

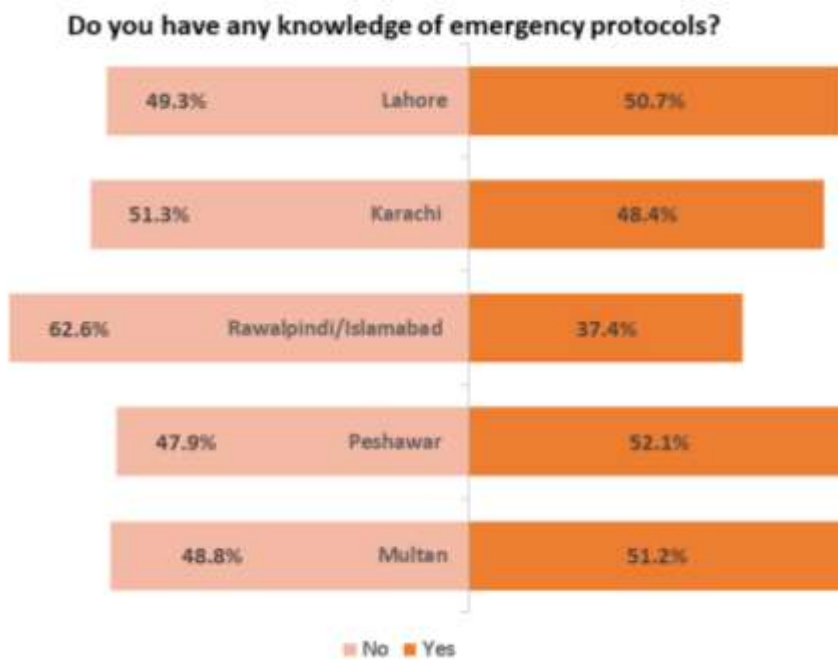


Figure 5. 4: Knowledge of emergency protocols among respondents

5.5. Special arrangement in the event of a terrorist attack

Being adequately prepared enables individuals to assert authority over their safety and protection enhancing their confidence and ability to act effectively under challenging circumstances (Mishra & Mazumdar, 2015). The bar graph (Figure 5.5) displays the percentage

of people who have made special arrangements in selected cities of Karachi, Lahore, Rawalpindi/Islamabad, Peshawar, and Multan. The graph is divided into four sections, each representing one of the cities. Peshawar has the highest percentage of people who have made special arrangements, with 32% of the population taking such measures. In contrast, Karachi has the lowest rate, with only 14% of the population making these arrangements. The other two cities, Lahore and Rawalpindi/Islamabad fall in between, with 24% and 25% of the population. Multan is in between Peshawar and Lahore with 29%. The differences between the cities could be attributed to various factors, such as socio-economic conditions, cultural norms, and infrastructure.

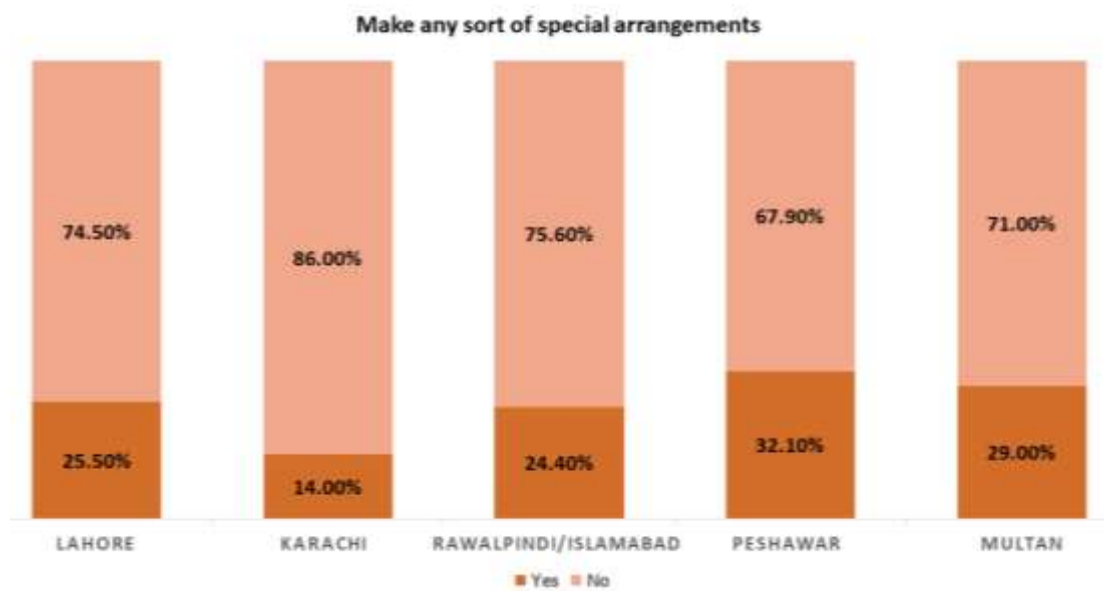


Figure 5. 5: Special arrangements in case or preparation of a Terrorist attack

5.6. Communication between govt and public

Effective communication between the government and the public is crucial for quick and precise action against terrorism. This includes essential information such as threats, safety protocols, and progress reports on response initiatives. Practical and trustworthy communication is pivotal in mitigating the spread of false information and falsehoods, empowering individuals to adopt suitable precautions to pursue security (Brataas, 2018). The respondents from Multan and Lahore have the highest (6%) considering the excellent communication between government and citizens. On the contrary respondents from Peshawar with only 3% have the most minor response against excellent communication. In the Twin Cities of Rawalpindi/Islamabad and Multan, 24% of the respondents think that the communication between government and the public could be better. In comparison, Karachi (33%) has the highest number of people who believe the same. Lahore has the lowest number

of respondents, with 22% considering communication could be better. Nearly the equal number of respondents from all the selected cities lie between 14 to 17% who think that communication between government and the public is sound or reasonable. It can be observed from the statistics data that most responses in these metropolitan areas of Pakistan could be better or better, so much so that 50% of the respondents are not satisfied with which government exchange as illustrated in Figure 5.6

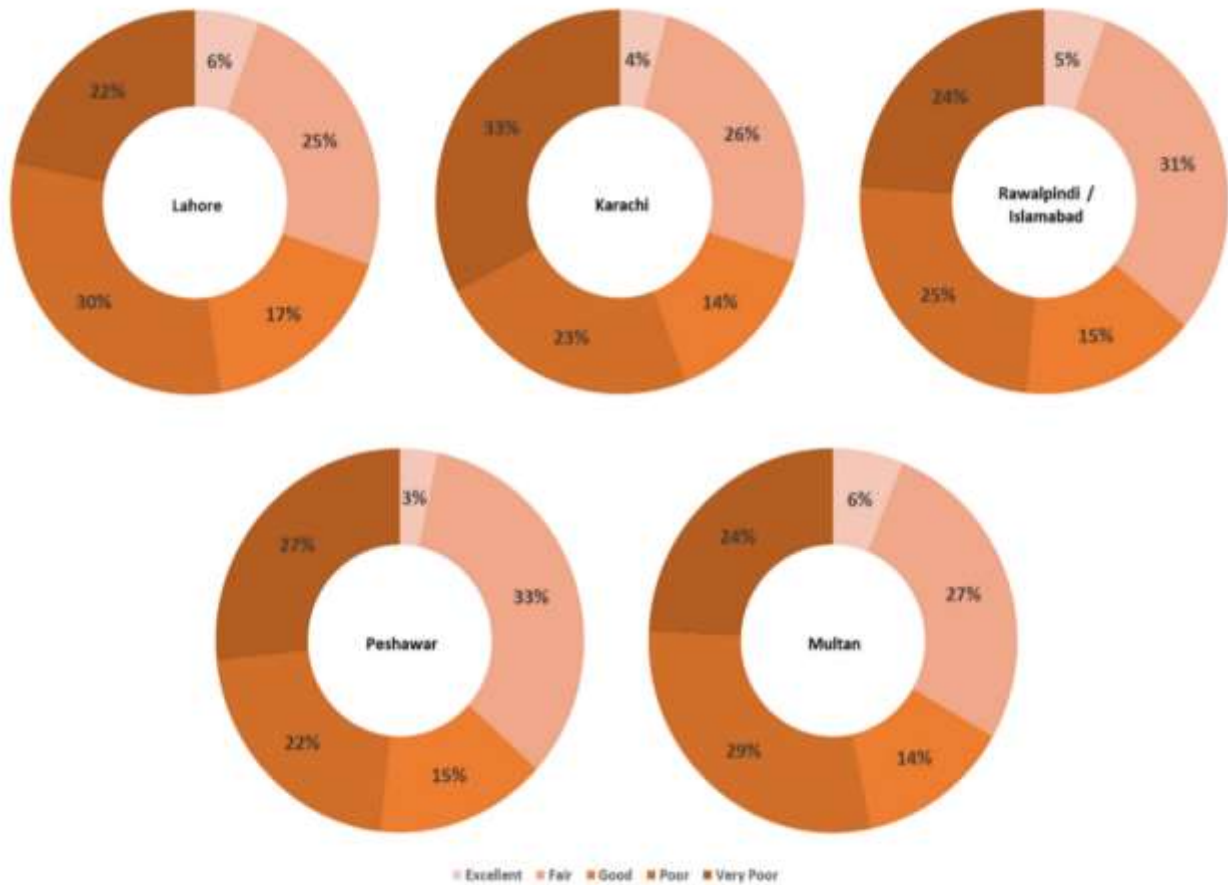


Figure 5. 6: Response from respected cities about Communication between govt and public

5.7. Distance to various public spaces from the respondent's residence

Terrorist often chooses targets based on their proximity to other vital areas as part of their strategic planning. By focusing on a public location near critical infrastructure, the potential impact of an assault might be magnified, leading to significant disruption in society operations (Wilkinson, 2006). Public areas close to high-profile targets, such as government facilities, iconic landmarks, or considerable event venues, are more susceptible to being targeted by terrorists (Hoffman, 2017). Public locations far from prominent targets may be less likely to be targeted by terrorists because of better safety measures or natural obstacles (Nesser, 2018).

Most respondents from Karachi reported that the distance to the nearest security forces/government area is the shortest for them given in Figure 5.7(a). Specifically, 42.9% of people reside within a two-kilometer radius of this facility. Meanwhile, the other three cities of Rawalpindi/Islamabad, Peshawar, and Lahore have a tiny percentage of their population, ranging from 34.4% to 37.3%, living near security forces or government. With a fraction of 30.3%, Multan has the fewest respondents residing within two kilometers. Approximately fifty percent of the populace resides within or beyond a four-kilometer radius of government or security installations in all selected cities.

Similarly, Multan has the most significant percentage (71.1%) of respondents close to the education/religious center. This is attributable to Multan's reputation as the city of Saints, where several shrines are scattered around the city. Rawalpindi/Islamabad, Lahore, and Peshawar are all located within a two-kilometer radius of these structures, with percentages of 68.7%, 65.5%, and 62.8% accordingly as represented in Figure 5.7(b). The limited number of participants residing outside a two-kilometer radius or beyond can be attributed to the prevalence of mosques in Pakistani society. It is expected to find mosques on every street in most neighborhoods. The data indicates that a small percentage of respondents reside more than four kilometers from these religious/education centers.

It has been observed that 52.5% of respondents from Karachi reside within four kilometers or less of healthcare facilities. In contrast, the most significant proportion of Peshawar respondents live across a distance of four kilometers or more. Conversely, as shown in Figure 5.7(c) Multan, Rawalpindi/Islamabad, and the remaining three cities of Lahore are close behind, with respective percentages of 46.7%, 46%, and 45% dwelling near healthcare providers. A considerable proportion of the participants live within a radius of four kilometers or more from these services, making it evident that even though healthcare facilities may exist in urban areas, they may not be easily accessible to all residents.

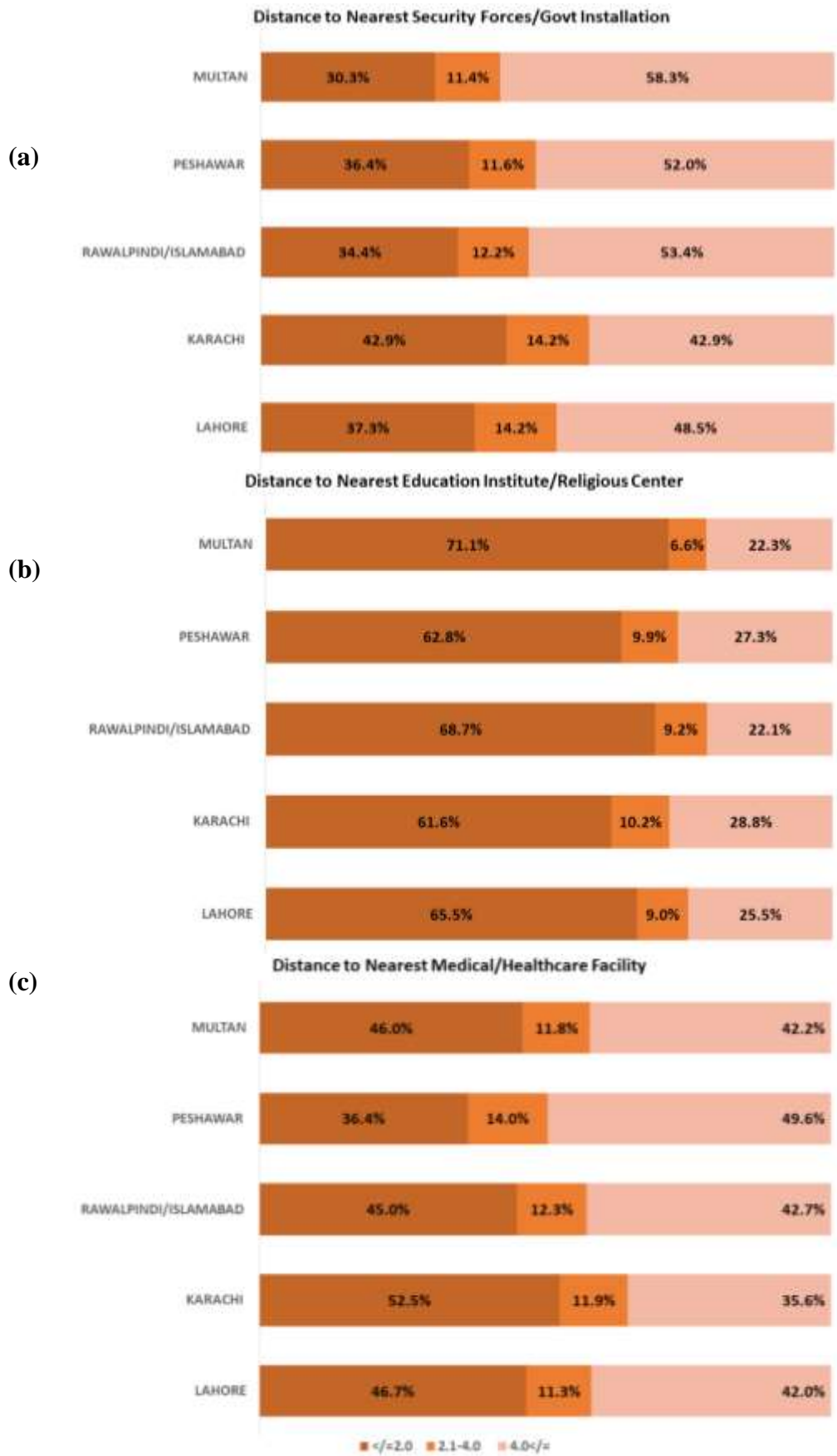


Figure 5. 7: Distance to the nearest respective space from the respondent's residence

CHAPTER 6: RECOMMENDATIONS AND CONCLUSION

6.1. Key findings and recommendations

Terrorism can impact local and global economies by diminishing foreign investment and trade. The real estate market is also affected by terrorism, as taller structures tend to be more attractive targets than smaller ones. This can lead to higher land values directly related to profitability and building height, resulting in high insurance rates. As a result, banks and insurance companies may refrain from financing large-scale projects or doing so at exorbitant rates. In contrast to the costs of rescue, cleanup, and rebuilding, governments and private companies invest a significant amount of money in preventing terrorist attacks. It is essential to consider indirect economic costs when analyzing the impacts of terrorism, as these costs can provide a more accurate accounting of the overall effect. However, some studies fail to fully consider the various responses to terrorist events and the reasons for those responses. Understanding whether more minor, more frequent attacks have similar indirect costs to those recorded following more significant attacks is crucial.

Cities that have implemented increased security measures due to terrorism can provide valuable insights into how local networks of different actors cooperate and what forms these networks take. Urban terrorism is a specific type of warfare designed to create ongoing conflict, and its impact can be measured through various indicators, such as the impact of persistent crime on cities and case studies of terror-affected cities. To fully understand and address the vulnerabilities and opportunities for improved space utilization, it is necessary to thoroughly investigate how space is used in a location, both vertically and horizontally, in both public and private settings. Future planning should also consider the potential for weaponization as a significant concern and incorporate it into infrastructure and buildings.

The psychological and health impacts of terrorism can also be complex, as current conflicts can create stressors that may impact the severity of psychiatric symptoms reported in studies. However, data limitations may oversimplify emotions, particularly regarding social insecurity. There is also a risk of biases in selection, nonresponse, recollection, and measurement in these studies. For example, self-selection bias may occur if recruitment locations exclude specific households, nonresponse bias may arise if people with severe stress symptoms are less likely to participate, and recall bias may occur if people are more likely to describe negative experiences with a terrorist event. It is essential to consider these limitations when interpreting the findings of these studies.

The media and news can significantly influence human behavior, as people's news consumption habits often shape their reactions to a terror incident. Therefore, there is a need for further investigation into the behavioral differences in the spread of genuine and misleading news. This can be achieved through more direct user engagement, such as interviews, surveys, and lab studies, providing a more thorough understanding of the human judgmental elements at play. This research can also shed light on the factors contributing to the dissemination of incorrect information, potential manipulations of the terror threat, and the cause-and-effect relationship that has yet to be included in many previous studies.

Building urban resilience is most effective when it involves a network of civil organizations, agencies, and individuals working together to achieve shared objectives within a shared strategy. Management should be integrated into policy and decision-making across the city to make cities more resilient. This highlights the need for risk governance reforms to be strengthened after the 9/11 terrorist attacks, which gave rise to organizational theories explaining why certain institutions can better adapt to unforeseen changes in their specific environments than others. There is a need for a more thorough understanding of resilience in the face of terrorism at all levels of government, including local, provincial, and federal.

Instead of relying solely on physical solutions, counterterrorism initiatives should involve citizens in a cooperative discussion about using urban space. Future studies should focus on the idea that people are partners in preparation, and efforts should be made to improve education and training in designing and administering resilient urban systems. This will require increased human resources, including sociologists, policymakers, engineers, scientists, planners, and emergency managers, to deepen our understanding of the social, cultural, and political factors that can help a city withstand terrorism. The findings of many studies on terrorism are based on interviews and experiences, rather than a comprehensive analysis of different regions. Additional research is needed to determine the effectiveness of the methods and models used in other countries.

Pakistan became a hub for terrorist operations because of its location in the world. Pakistan, which is close to Afghanistan, had to take the impact of the USSR's invasion of that country in 1979. For thirty years now, Pakistan has had to deal with terrorists (Hyder, Akram, & Padda, 2015) (Malik & Zhilong, AN APPRAISAL OF TERRORISM IN PAKISTAN, 2019). After the Union of Soviet Socialist Republics (USSR), the USA entered Afghanistan. The extensive border between Pakistan and Afghanistan has resulted in the evident and immediate consequences of the 9/11 attacks. In addition, the United States and its allies launched an attack against the Taliban, whom they considered to be terrorists. This led to the insurgency spreading

into the tribal belt in Pakistan and quickly expanding into the northern portions of the nation. The agenda adopted by these militants was rooted in the process known as Islamization and received widespread support from the general population due to its socio-cultural and religious characteristics (Daraz, Naz, Khan, Khan, & Khan, 2012) (Wolf S. , 2017).

Pakistan faces a complex social landscape due to its division along Sunni/Shiite sectarian divisions. The country possesses the most significant Shiite minority in the world, with slightly less than 25% of the population. Non-Shiite Islam is characterized by a division between two distinct expressions; tolerant, and pluralistic Barelvi and more extensive Sufi traditions, and the stricter Deobandi sect. Pakistan's significant involvement in the enduring proxy battle between Saudi Arabia and Iran is the primary cause of sectarianism and violence (Droogan, 2018) (Fair, 2015) (Abbas & Syed, 2021). Pakistan also had racial unrest, mainly in the region of Sindh. People from all over Pakistan live in Karachi because of various job prospects causing racial fights between different groups. These fights began in the mid-1980s and got worse in the 1990s. Even though these ethnic battles stopped in the second half of the first decade of the 21st century, there was still much unrest in the form of more crime (Hyder, Akram, & Padda, 2015).

The ongoing rebellion in Baluchistan has been a conflict in Pakistan since 1948. The Baluch people recognize themselves as being socially and economically subjugated by the Punjabi-dominated core. The number of non-sectarian attacks had a substantial increase, rising from a meager 3 in 2000 to 89 in 2006, and further escalating to 144 by 2010. Since the onset of the ongoing insurgency in 2004, a total of 605 attacks have occurred till 2017. Among these, 349 targeted utilities such as gas pipelines, businesses, government installations, and security forces. Between 2005 and 2012, there were 178 attacks on gas pipelines in the province (Saeed & Syed, 2018) (Irshad, 2011).

Unemployment and poverty are critical causes related to terrorism in Pakistan. Insufficient employment opportunities for educated young people lead to the recruitment of militants in Pakistan. Furthermore, the sense of helplessness and lack of resources is fueling to take arms among unemployed Pakistani youth. To add insult to injury Approximately 60% of the population is below the poverty threshold, assuming that the minimum daily salary is \$2. The apparent consequence of poverty-stricken family is their inability to provide nutrition and education for their children, leading to a noticeable susceptibility towards seeking quick financial gains. Therefore, poverty leads to the availability of a substantial supply of workforce for terrorist organizations (Haider, de Pablos Heredero, Ahmed, & Dustgeer, 2015) (Hussain, 2003).

In Pakistan war on terror in Afghanistan, rebellion in Baluchistan unemployment, poverty, and sectarian war are the reasons for terrorism which can be entertained or eradicated using capacity building. The study was done in five main cities: Karachi, Lahore, Multan, Rawalpindi/Islamabad, and Peshawar. The binary data on encountering terror attacks in the past shows that Multan has no experience with any terrorist activity in the majority. At the same time, people in Peshawar, on the other hand, have reported the most direct incidents. Lahore and Rawalpindi/Islamabad have been through terrorist attacks. Surprisingly, significantly less people from Karachi had been directly affected by a terrorist attack. According to the survey, Peshawar has the highest percentage who don't have health insurance while Lahore has the highest number of respondents covered by some health insurance.

The statistical information on the first aid training of people shows Karachi has the highest percentage of people who have never been to or attended first aid training. Multan has the lowest rate of people who say they need to learn about first aid training. Consequently, the majority of the population in Karachi has also never attended or been to an awareness/drill program from security agencies or any government platform. At the same time, Multan has the highest number of people who have sound knowledge of drills. The Twin Cities of Rawalpindi and Islamabad have the highest percentage of uninformed respondents concerning emergency procedures in the event of a terrorist attack and unexpectedly, Peshawar and Multan have the most significant proportions of inhabitants conversant with emergency procedures.

The respondents from Multan and Lahore have the highest that consider the communication between government and citizens excellent. On the other hand, Karachi has the highest number of people who believe communication is abysmal. Most Karachi respondents said the distance to the nearest security forces/government area was the shortest. Meanwhile, only a tiny percentage of Rawalpindi/Islamabad, Peshawar, and Lahore live near security forces or the government. Multan has the highest percentage of respondents who live near an educational/religious center. The data suggests that a tiny percentage of respondents live more than four km from these centers. It has been noted that a large population of respondents in Karachi live within four kilometers or less of healthcare while most respondents in Peshawar live away from these services.

6.2. Conclusion

Urban terrorism has been one of the most significant man-made disasters worldwide in the past two decades. However, there is no universally agreed-upon definition of terrorism, so it has been used in various contexts by different individuals and stakeholders. It can significantly impact the lives of citizens and the functioning of a city, disrupting daily activities and causing

fear and insecurity. As such, it is vital for researchers and policymakers to understand the various factors that contribute to urban terrorism and to develop strategies for preventing and mitigating its effects.

The analyses revealed historical trends and developments in urban regions due to terrorism. The results of the extracted articles showed that research on urban terrorism began as early as 1971, but the number of studies significantly increased after the 9/11 attack. Most articles were from the disciplines of public administration, environmental sciences, international relations, law, and medicine. Most articles were published in the United States, England, and Australia. Keyword analysis of research on metropolitan areas and terrorism revealed that the frequently used search phrases were security, resilience, political violence, counterterrorism, and disasters. Thematic analysis was conducted using two databases, Web of Science and Scopus, to examine the relationship between terrorism and urban space and governance and how terrorism affects mental health, the economy, and tourism.

Bibliometric analysis has certain limitations and biases that may affect the accuracy of the results. For example, data from databases may only include journals and papers that match a specific set of keywords, which can lead to language bias if the terms only exist in English. This can restrict the scope of scientific knowledge and may exclude understanding from other sources of scientific papers. Additionally, the total number of publications and citations may have changed due to the data being retrieved on a specific date, as the body of literature continues to grow. Similarly, the researcher's subjectivity can also affect thematic analysis, resulting in different naming of themes. This subjectivity can lead to different researchers coming to different conclusions about the same data and can make it challenging to establish the validity of the themes identified.

This questionnaire-based study was conducted in urban areas of Pakistan, i.e., Lahore, Karachi, Islamabad/Rawalpindi, Peshawar, and Multan show variations in terrorism risk perception. The key determinant in terrorism risk perception is the level of education as compared to other social, economic, and demographic indicators. Lahore exhibits a significant majority who face a substantial amount of fear and have a high degree of terrorist attacks within the region. Karachi has experienced the most effect of terrorism on their lifestyle in all cities surveyed. While respondents from Rawalpindi and Islamabad believe they possess an excellent degree of preparedness and have higher trust in the government. The study also reveals that the representation of terrorism in the media influences the way people perceive the level of risk in different cities. The exaggerated reporting of terrorist occurrences in Multan might intensify fear and worry among the general population, impacting their views on security and

susceptibility.

This study examines how well-equipped people are for terrorism in five big cities in Pakistan. Multan has the most people who have never been a target of terrorism and had first aid training or some form of awareness/drill. More people in Lahore have health insurance than in any other place. On the other hand, Peshawar knows the most about what to do in a situation and has a strong desire to make special arrangements in case of a terrorist attack. Multan and Lahore trust how the government talks to the people. Most people in Karachi live near a government or security installation or a medical or healthcare building.

Effective capacity-building programs are challenging to put together since terrorism is continuously evolving. Capacity-building efforts to combat terrorism may have unforeseen repercussions as Terrorist groups' diverse motivations, tactics, and ideologies demand complex and adaptable techniques that may be hard to generalize or reproduce. Building and maintaining comprehensive evaluation frameworks, trustworthy data, and long-term monitoring can be challenging to measure results like reduced terrorist attacks, increased security, and community resilience. Controversies, opposition, and implementation concerns may also arise when counter-terrorism as it deals with sensitive political, cultural, and social issues. Human rights abuses, societal stigmatization, marginalized community pushback, and exacerbation of grievances can feed radicalization and extremism, weakening counter-terrorism efforts. Managing security needs with human rights, civil liberties, and privacy rights can take time and effort, making capacity-building projects difficult.

Research should prioritize the evaluation of various capacity-building initiatives and tactics in combating terrorism in the context of Pakistan. This entails different actions, policies, and programs on diminishing terrorist threats, improving security, and fostering community resilience. Terrorism is a multifaceted phenomenon and Pakistan is a diverse country. Exploring the impact of community participation and empowerment on the development of resilience against acts of terrorism can lead to grassroots projects by collaborations between government agencies and civil society organizations in deterring radicalization, fostering social harmony, and enhancing community resilience. Further investigations may encourage the development of sustainable preventative measures that target the fundamental roots of terrorism, including factors like poverty, inequality, social marginalization, and political grievances in deterring radicalization and extremism.

This study has limitations as quantifying risk perception is challenging since respondents' behaviours, judgments, and preventative measures cannot be precisely measured using established indications due to several unknown factors. Various frameworks and theories have

been created to explain risk perception, but not all were considered in this study. Additional research is needed to investigate how regional institutions and social norms affect the perception of terrorism risk. The results of the current study are derived from urban participants. Therefore, it is yet to be determined the extent to which results can be applied in rural surroundings. The current study could be enhanced by future research that delves deeper into how cognitive, experiential, and socio-cultural elements interact to shape how people perceive the risk of terrorism.

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Annexure 1: Research Questionnaire

Sr. No: _____ What's broArea/Location: _____ Date: _____



The purpose of this study is to make “**Terrorism and vulnerability on Urban Scale.**” This study is being conducted at the National University of Science and Technology (NUST) Islamabad. The information provided will be kept confidential.

1. Age: _____ 2. Gender: _____ 3. Education Level: _____
 4. Family type: Joint Single 5. Ethnicity/sect/ cast: _____
 6. Marital status: Single Married 7. Size of household _____
 8. Number of Males ____ and Female ____ in house 9. Person with disability in house _____
 10. Number of Children in the household under 10 years _____
 11. Number of Elderly persons in the household (above 50 years) _____
 12. Accumulative/Average monthly household's income _____
 13. Number of Males _____ and Females _____ working in a family
 14. Is there more than one income source?? **No/if yes** how many?? _____
 15. Ownership of other assets such as Like houses, land, animals and etc. **Yes/No**
 16. Number of Household members having health insurance _____
 17. Household head's education level
 a) primary b) secondary c) intermediate d) bachelor e) master and above
 18. The Occupation of the household head
 a) business b) farmer c) govt job d) retired e) other/ specify
 19. House type
 a) Combined/apartment b) Semidetached/Rented space c) detached/ Individual House
 d) kaccha House e) other/ specify
 20. Location of the house in
 a) Commercial area b) Residential society/ gated community
 c) suburbs d) Mohalla e) other/ specify
 21. Do you have any past experience with terror attacks? **Yes/No**
 22. Make special arrangements in case of a terrorist attack **Yes/No**
 (If yes, tick the box in front of the corresponding level of preparedness)
- | | |
|---|--------------------------|
| Stockpile supplies (e.g., food, water, antibiotics, etc.) | <input type="checkbox"/> |
| Purchase things to make you safer (e.g., gas masks, house security systems, etc.) | <input type="checkbox"/> |
| Duplicate important documents (e.g., birth certificates, passports) | <input type="checkbox"/> |
| Improve communications ability (e.g., purchase cell phones for family members) | <input type="checkbox"/> |
23. Household attended first aid training **Yes/No**
 24. Household's awareness of terrorist attack **Yes/No**
 25. Household's knowledge of emergency protocols **Yes/No**
 26. Approximate Distance to nearest medical/healthcare facility to your home _____ km
 27. Approximate Distance to nearest security forces/govt installation to your home _____ km
 28. Approximate Distance to nearest education institute/ /religious center _____ km
 29. Number of public awareness programs/ drills attended by any household member, if any _____

30. Communication between govt and public

a) Excellent b) Good c) Fair d) Poor e) Very Poor

31	I think violence is increasing day by day	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
32	The chances of loss of lives in terrorist attacks	Very High	Above Average	Average	Below Average	Very Low
33	How much is your region likely to be affected?	Very High	Above Average	Average	Below Average	Very Low
34	I'm always afraid of an attack.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
35	I felt scared of going out at certain times and places.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
36	I have been worried about what might happen to my surroundings.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
37	I have become more distrustful and suspicious as a result of terrorist attacks.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
38	I avoided mixing with certain groups or people	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
39	I began to distrust people	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
40	I started to think that I was being observed	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
41	I'm worried about my family/family members	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
42	I/my family needed an escort to guarantee my safety.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
43	My family and I have felt exhausted when facing this situation.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
44	I have thought about leaving everything and going to live somewhere else	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
45	I felt free to carry out any everyday activity.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
46	I'm comfortable in large public gatherings	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
47	I believe media has a prominent role in spreading or controlling Terrorism	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
48	I believe politics is the reason behind terrorism	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
49	Foreign / transboundary actors are behind Terrorism	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
50	Religion is the reason behind terrorism.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
51	Govt/Security Agencies are responsible for terrorism	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
52	Unemployed youth participate in Terrorist activities	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
53	Will there be any end to terrorism in Pakistan in future	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
54	I will cooperate with Govt/the security agency to action against Terrorist	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

55	How much do you agree with govt policies for reducing terrorism	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
56	Terrorism has changed your relationships with friends and neighbors?	Very High	Above Average	Average	Below Average	Very Low
57	How much will you and your household be likely to be affected due to terrorist attack?	Very High	Above Average	Average	Below Average	Very Low
58	How much terrorism has changed your lifestyle?	Very High	Above Average	Average	Below Average	Very Low
59	What do you think is your capability to cope/handle with terrorist attacks	Very High	Above Average	Average	Below Average	Very Low
60	What level of understanding do you have of emergency protocols?	Very High	Above Average	Average	Below Average	Very Low

61. Any comments or suggestion

Annexure 2: Results Tables

Terrorism Risk Perception

	Low	Moderate	High
Multan	16.00%	63.00%	21.00%
Peshawar	10.00%	49.00%	41.00%
Rawalpindi/Islamabad	21%	60.00%	19.00%
Karachi	8%	56.00%	36.00%
Lahore	15%	66.00%	19.00%

Table 1: Fear and Likelihood

	Low	Moderate	High
Multan	23.00%	62.00%	15.00%
Peshawar	14.00%	69.00%	17.00%
Rawalpindi/Islamabad	30.00%	60.00%	10.00%
Karachi	19.00%	71.00%	10.00%
Lahore	21.00%	67.00%	12.00%

Table 2: Impacts

	Low	Moderate	High
Multan	21.00%	67.00%	12.00%
Peshawar	24.00%	69.00%	7.00%
Rawalpindi/Islamabad	26.00%	65.00%	9.00%
Karachi	33.00%	61.00%	6.00%
Lahore	24.00%	65.00%	11.00%

Table 3: Trust and preparedness

	Low	Moderate	High
Multan	15.00%	79.00%	6.00%
Peshawar	7.00%	81.00%	12.00%
Rawalpindi/Islamabad	19.00%	77.00%	4.00%
Karachi	11.00%	83.00%	6.00%
Lahore	13.00%	80.00%	7.00%

Table 4: Terrorism Risk Index

Terrorism And Public Capacities

Column1	Lahore	Karachi	Rawalpindi/Islamabad	Peshawar	Multan
No	83.02%	79.66%	83.21%	57.85%	88.63%
Yes	16.98%	20.34%	16.79%	42.15%	11.37%

Table 1: Do you have any past experience with terror attacks?

Column1	Lahore	Karachi	Rawalpindi/Islamabad	Peshawar	Multan
No	49.29%	51.57%	62.60%	47.93%	48.82%
Yes	50.71%	48.43%	37.40%	52.07%	51.18%

Table 2: Do you have any knowledge of emergency protocols?

Column1	Lahore	Karachi	Rawalpindi/Islamabad	Peshawar	Multan
No	70.80%	78.70%	79.60%	80.30%	72.50%
Yes	29.20%	21.30%	20.60%	19.70%	27.50%

Table 3: Do you have health insurance?

Column1	Lahore	Karachi	Rawalpindi/Islamabad	Peshawar	Multan
No	83.70%	94.20%	80.20%	83.60%	79.10%
Yes	16.30%	5.80%	19.80%	16.40%	20.90%

Table 4: Have you attended any public awareness programs/ drills?

Column1	Lahore	Karachi	Rawalpindi/Islamabad	Peshawar	Multan
No	71.23%	75.79%	70.23%	68.60%	66.35%
Yes	28.54%	23.97%	29.01%	30.58%	33.18%

Table 5: Household attended first aid training

Column1	Lahore	Karachi	Rawalpindi/Islamabad	Peshawar	Multan
No	74.50%	86.00%	75.60%	67.90%	71.00%
Yes	25.50%	14.00%	24.40%	32.10%	29.00%

Table 6: Make any sort of special arrangements