International Journal of Research in Engineering, Science and Management
Volume 5, Issue 11, November 2022
https://www.ijresm.com | ISSN (Online): 2581-5792

Terrorism: An Analysis on its Economic Consequences in Nigeria, Pakistan and Turkey

Jesse Mariz G. Barcena[1*], Arlo Francis F. De Los Santos[2], Ethan Marco N. Diño[3], Maria Antoinette L. Rosete[4]
[1,2,3,4]*Department of Business Economics, University of Santo Tomas, Manila, Philippines*

***Abstract*: This study examines the effects of terrorism activities, such as, attacks, deaths, and injuries on the economies of Nigeria, Pakistan, and Turkey based on different economic variables, such as, unemployment, inflation, and foreign direct investments. The study also aims to determine the differences in impact ranging from low-middle income countries, like Nigeria and Pakistan to middle-upper income countries, such as Turkey. It is evident in low-middle income countries that fatalities and number of attacks are higher which is responsible for their economic collapses and an impact on all the economic variables stated in this by using a cross-country analysis and a multiple regression test, this research also proves that increase in terrorism activities have an indirect relationship with FDI inflows. Furthermore, a grow in terrorism activities could also increase inflation, and unemployment rates.**

***Keywords*: Foreign direct investment, Inflation, Nigeria, Pakistan, Terrorism, Turkey, Unemployment.**

1. Introduction

From 2000 to 2018, the world economy suffered a loss of $855 billion due to terrorism (Baldwell and Iqbal, 2020). According to Cinar (2017) Terrorist attacks are causing a negative impact on the growth of the economy in most regions, particularly in lower income countries. In the last two decades, terrorism impact on the economy continued to escalate (Lubis U, 2016). This increase has been prevalent in developing countries, researchers would question how this impact compares to most rich developed countries. Would the economic consequences on specific variables even be comparable as it continues to increase. The incidences of terrorism have halted opportunities for the economy to thrive in these countries; Several studies showed a direct negative impact of violence attacks to a country's economy and its growth, however, just how much and which part of the economy are the most affected is yet to be specified.

Bloomberg et. al (2004) examined the macroeconomic effects of terrorism and mentioned that average incidence of extremist groups' activities can have a negative effect on the country's economy in association with the retraction from investment spending and towards the government's funding. Polyxeni and Theodore (2019) supported this notion by concluding that terrorism is a discouraging factor of foreign direct investments so FDI inflows are negatively associated to terrorism. Research by Malik and Zaman (2013) also revealed that other macroeconomic factors such as population growth, price level, and poverty has a significant relationship with terrorism incidences.

Research shows constant negative effects of terrorism in the world economy throughout the years. The Global Terrorism Database has a record of more than 200,000 international and domestic terrorist attacks occured worldwide since 1970. The Global Terorism Index also stated the heavy financial cost on the economy. US$26.4 billion was recorded in 2019 which is 25% lower than 2019. Despite an increase in attacks, terrorism's impact continues to decline. Deaths from terrorism fell by 1.2% while attacks rose by 17%. Abadie and Gardeazabal (2007) analyzed the impact of terrorism to the world economy leading to findings that a grow in risks of terrorism leads to a decline in the net foreign direct investment in GDP by 5 percent. The countries that are mainly in the Middle East, Africa, and South Asia are those that are in conflict and ultimately experience the economic impact of terrorism. (Abdullah, Wardanah, and Muhammad, 2019).

Furthermore, Analysis from Pakistan also extracted the influence of terrorism on the economy from 1981-2016. Findings showed that the coefficient of terrorism indicates that there is an inverse and statistically substantial effect on economic growth. One percent increase in terrorism would negatively affect the economic growth by 0.3053% in long run. (Sidra, Rauf, and Siddique, 2020). Moreover, macroeconomic impacts of the terrorism has caused investment spending to go towards government spending. Terrorism often occur in developed nations, but the negative effects are more significantly experienced in developing countries. (Bloomberg, Hess, and Orphanides, 2004). Koseli (2006) said that poverty is an important determinant of crime delinquency, regional conflict, and terrorism. However, it is not enough to just look at poverty as the only factor to explain crime as there are other factors which could be economic, that lead to people being impoverished. A study of Wilson (2019) in Nigeria found that poverty as a precipitating factor leading to discourse of violence and insecurity in relation to acts of terrorism by boko haram insurgents a militant islamist and jihadist rebel group. In addition, poverty is positively correlated with terrorism which

*Corresponding author: jessebarcenaa@gmail.com

also has a positive association with inflation, inequality, and population. (Ilyas, Mehmood, Aslam, 2016).

This research aims to identify the relationship of terrorism attacks and incidents to economic variables. It wants to investigate if the increase in the incidence of terrorism has an inverse effect to foreign trade and investments, unemployment, and consumer price indexes. This research also wants to discover which of these variables is the most affected by terrorism and how it slows down economic growth. For this purpose, we look into 3 countries (Nigeria, Pakistan, and Turkey). According to Bandyopadhyay & Younas (2019) geography and fractionalization limit a country's ability to restrain terrorism, while strong leal institutions put it off. We intend to study Nigeria and Pakistan, classified as lower-middle income countries, and Turkey, as an upper-middle income country by the World Bank (year) in their World Development Report. There is anecdotal evidence that terrorism bring different economic consequences in developed and developing countries (Tingbani et al, 2018). This difference in economic standing enables a comparative view on the impact of terrorism to a developed vis a vis less developed countries as Khan & Yu (2019) found that a single attack can leak and shake the economic and trade activities in developing countries. We aim to identify the influence terrorism brings to different variables and how it affects the economical aspects of these different countries.

This research helps to determine how developed countries handle the impact of terrorism incidents than those countries with developing economies investigating if there is a positive effect of terrorism on the economy's growth for developed countries and a negative effect for developing economies. Bloomberg et al. (2004), Gailbulloev and Sandler (2009), Farooq and Khan (2014), and Hyder et al. (2015) has indicated the inverse and significant outcomes of of terrorism incidents on economic growth which shows that for every one percent increase in terrorism, there would be a 0.3053 percent decrease on economic growth. This paper would also love to explore the counter-terrorism activities that would deflect the negative consequences of terrorist activities, such as capital investments that increases economy growth by 5.43 percent for every one percent increase.

This research will evaluate the impact of terrorism to different specific economic variables from different countries and if the amount of impact terrorism has in those variables are similar in comparison with the other evaluated countries. It will try to find if terrorism's impact on one or some variables are more significant than the other economic variables. In cases of African countries, such as Nigeria, research has revealed that the prevalence of existing poverty that causes terrorism and vice-versa, have long-run negative impacts on macroeconomic factors. Consequently, terrorism has a positive association with unemployment, inflation, inequality, and population as well in African countries like Nigeria that has one of the worst Human Development Indicators with 71.5 percent of population living in absolute poverty. With investors leaving due to terrorism, unemployment has further heightened (Akubor, 2016). According to Malik and Zaman (2013), terrorism incidence in Pakistan is similar in terms of macroeconomic aspects, although, unemployment, income inequality, and trade have no relationship with terrorism in the long-run. In Turkey, the impact of terrorism on the macroeconomy is grave during expansionary periods, but more significant during recession periods.

2. Literature Review

A. Terrorism and the Economy

Bardwell and Iqbal (2020) stated significant economic disruption is caused by the casualties and injuries on human life. They further added that individuals and societies alike are affected by adverse economic consequences of terrorism. This is supported by Abadie and Gardeazabal (2003) who showed that there are large effects on economic outcomes based on the empirical estimates of terrorism consequences. Upon facing terrorism threats, smaller countries tend to resort to liberal international economic policies (Meierrieks & Schneider, 2021). Prieto-Rodriguez et al (2009) stated in their study that global terrorisms are mainly targetting religious and socio-economic organizations. The number of casualties, injuries, and property damage in both public and private entities can be utilized to determine terrorism's economic consequences (Bardwell and Iqbal, 2020). Countries engaged in violence are those that first-handedly feel the impact of terrorism in their economies (E T Pratiwi et al 2019). Terrorist attacks' effects on the economy slow down a country's progress (Niyitunga 2018). Different sectors also experiences the impact of terrorism economically. Support for violent attacks does not decrease among those with higher living standards (Krueger & Maleckova, 2013). Countries plagued with a large number of terrorist attacks engage in trade significantly less to those who are not much infested with extremist activities (Nitsch and Schumacher, 2004). Furthermore, terrorism is a discouraging factor to FDI and both emerging and traditional determinants impact FDI inflows in recipient countries (Polyxeni and Theodore, 2019).

Terrorism activity and economic growth are not independent of one another (Blomberg et al., 2004) in fact, economic weakness ignites terrorism. A study by Abadie and Gardeazabal (2008) shows that there is a 10% drop in GDP per capita within two decades due to terrorist incidents. It is also mentioned that terrorism influences decision-making for internation investors which produces a 5% fall in the FDI which is a contributing factor to economic growth.

From 2000 to 2018, terrorism has been impacting the economy globally. Middle Eastern and North African regions are gravely affected with an economic loss of $US 434 billion (Baldwell et al., 2020). Terrorism impacts majority of the economy through cost of deaths, injuries, and GDP loss. Costalli et al., (2017) estimated that GDP loss is at 1.5% for each year of terrorism incidents. In Turkey, Bilgel and Kharasan (2017) indicated a 13.8% GDP decline over a period of 21 years. Meanwhile, Ali (2010) estimated that the cost of terrorism in Pakistan reduces short term economic activities that could decrease economic growth by affecting the

confidence of economic actors.

1) H1: Decrease in terrorist incidents in a country does not increase average economic growth rate

Growing the economy and engaging in terrorism are mutually exclusive. To put it more plainly, if there are fewer terrorist attacks in the nation, the average growth rate of that nation will rise (Cinar, 2017). Blomberg et. al (2004) supports this in their research where they discovered that terrorism incidents pose a negative effect on economic growth in either internal or external conflicts. Moreover, Saleem et. al (2020) has stated that terrorism has an inverse and statistically substantial effect on growth with a one percent increase in terrorism leading to a negative effect in the economy by 0.3053% in the long run. Even just a single terrorist attack can affect the economic and trade activities especially in developing countries (Khan and Yu, 2019)

Seung-wan Choi (2015) has also emphasized that as economic growth progresses, more economic possibilities and activities would lead to a minimization of either domestic or international terrorism.

B. Terrorism and Foreign Direct Investments

Foreign direct investment has been one of the most important factors in a country's economic development. Foreign direct investment or FDI, is a type of investment that goes across borders that is related to a resident of one country having control or a considerable impact on the management of an enterprise that is resident in another economy, according to the World Bank. According to Almfraji and Almsafir (2013), FDI is defined as a package of technology, capital, management, and entrepreneurship that enables firms to operate and provide goods and services in a foreign market. Moreover, FDI has an overall positive impact on every country's economy both in the short and long run.

In Pakistan, according to Ullah and Rahman (2014), there is an inverse relationship between terrorism and FDI as it impact s investors' sentiments. Terrorism makes them shift their investments into more secure economies. This is also supported by Abadie and Gardeazabel (2005) as terrorism activities leads to decline in FDI. However, other factors can also affect the FDI like corruption, rules regulation, political instability, and democratic and military regime. (Ullah and Rahman, 2014). The sectors that are mostly affected by the decrease of FDI in Pakistan due to terrorism are construction, food, financial services, oil and gas, personal services, transport equipment, and trade. (Jalil, 2017). However, even though these sectors are negatively impacted by terrorism and FDI, some of them resulted to statistically insignificant namely: oil and gas, power, and petroleum financing. As these sectors have higher abnormal profits due to higher risks (Murtaza and Amar, 2014).

Furthermore, Insecurity in Nigeria has a negative effect on FDI as Nigeria's national security remains one common and major factor hindering the growth of FDI over the period of 1990-2013 (Barikui and Solomon, 2015). Danjuma (2021), stated how banking sector in Nigeria in which terrorism is found to have adverse effects on FDI inflows considering its role to the financial system and employment. As a result, unemployment and idleness in the country rises which provides a resentment and recruitment of insurgency leading to increase in growth in circle of terrorism (Abubakar and Aisha, 2017.). Supported by Murtaza and Amar (2014), they also found negative effect of terrorism on FDI inflows to financial and business sectors in Nigeria. Abubakar and Aisha (2017) also stated how stability is important for investors as it reduces speculations and enhances market confidence.

Moreover, terrorism in Turkey also affects the foreign direct investment in the economy. Tourism plays an important role in Turkish economy and when major tourist cities such as Istanbul, Izmir, and Antalya are affected by terrorist acts it results to a reduction in the number of FDI and visitors in these cities. (Ari and Ibrahim, 2021). According to Celik and Bayrak (2020), their findings indicate that there are no statistically significant effects of terrorist attacks on FDI in short and long-run periods. As 15% of the total terrorist attacks target businesses while a significant share of them target military and police. In addition, the locations that are being attacked by terrorist are often long-distance and foreign investment clusters in Turkey could be the other potential reasons.

1) H2: Terrorism does not have a negative relationship with foreign direct investments

The effects of terrorism has direct economic losses on foreign direct investments which is a major source of saving that supports economic growth for developing countries. Agrawal (2011) supports this as the results of her study indicated a significant negative correlation between terrorist events and total FDI inflows. Abadie and Gardeazabal (2008) found that a notable increase in terrorist attacks can impact FDI inversely by 5% of GDP. They further added that international investors can distribute risks in other counties as terrorism is believed to affect movement of capital among world economies. Bandyopadhyay et al (2013) also noted that domestic and cross-country terrorism attacks have an indirect effect on FDI. Using economic specifications, it is discovered that a standard deviated increase in incidents of domestic terrorism per 100,000 persons caused net FDI to decrease between $300 million to $500 million in an average country.

C. Terrorism in Nigeria

There are various reasons for the existing levels of terrorism in Nigeria and Africa such as social instability, internal insurgencies, and political upheavals (Ilyas et al, 2016). The UNDP on their 2019 report found that within 18 focus countries in Africa, the aggregate economic cost of terrorism in is at a minimum of US$109 billion from 2007 to 2016 with Nigeria suffering by far the highest economic impacts accounting for 89 percent at US$97 billion. According to Wilson (2019), the impact of terrorism in Nigeria is felt mostly in the north eastern region; poverty is considered as a precipitating factor in the contentious discourse of violence and insecurity and therefore remains a critical issue in the country. Prominence of the acts of terrorism in Nigeria began from 2009 when Boko Haram, a terrorist group began its insurgency activities. Despite being Africa's largest economy, Nigeria is also one of the poorest countries in the world, even overtaking India to be the country

with the most extreme poor people. (Wilson, 2019). Akubor (2016) iterated in his paper that terrorist acts has in one way or another hampered the socio-economic development of Nigeria with the main reason being diversion of human and intellectual resources to destructive tendencies, other than being channelled towards building the nation.

1) H3: Terrorism causes no long-run negative impact on macroeconomic performance in African countries

Osewe (2016), using PMG estimators, revealed that one terrorist incident decreases GDP by 3.15% in Africa and linked to this is a 29.2% decrease in income that will be felt by the poorer segment of the country which further intensifies the income inequality. The speed of the adjustment using average convergence parameters also showed that a terrorist attack in the country will cause their economy to experience the shock for almost 18 years.

D. Terrorism and Inflation

Inflation is represented by the prices in an economy which acts to represent that consumer demand is satisfied at a certain level of consumer purchasing (Sun et al., 2021). Prevailing inflation is bad for the people as it hinders their ability to fulfill basic needs, especially those living in poverty. Higher inflation reflects a bad economic state of a country. Sun et al. (2021) found studies that applied several techniques, such as binomial, STAR, ARDL, LSTAR to show that terrorism has a valid indirect impact on inflation. External shocks like terrorism can generate domestic inflation and become an important source of fiscal risk (Yogo, 2015).

Shahbaz (2013), in his study on the linkages of terrorism to economic growth indicators, such as inflation in Pakistan recommended that the government should be able to have power over inflation as it does not only affect the growth of the country, but extreme inflation can also be the cause of terrorism. Terrorism affects macroeconomic variables like inflation rates which thwarts their economic growth indirectly (Zakaria et al., 2019) Pakistan's vulnerability to terrorism impacts their economy's growth and determining the impact of terrorism on aspects like inflation rates can capture the influence of terrorism on actual economic activity and purchasing powers of consumers (Hussain, 2017). His study's results indicated that overall inflation relatively rises in the cities that face an attack based on the intensity of the attack in Pakistan. More intense the attack, the higher the inflation will go up.

In Nigeria, Imhonopi & Urim (2016) found that terrorism indirectly affects inflation, through lower trade velocities caused by Boko Haram terror activities. Without trade activities, goods and services cannot be bought or sold creating scarcity due to lack of supplies, and thus inflation in the local economy will arise (Imhonopi & Urim, 2016). Alenoghena & Nwokoma (2020) supports this. In their study the terrorist activities of Boko Haram led to displacement of households and reduces total output and production of the economy. The reduction in total output of goods and services is what triggers inflation in the country. The terrorist situation in Nigeria has caused rapid inflation and a decline in the availability of its people's basic needs (Nwobueze & John, 2021).

To be more specific Maitah et al. (2017) found that 100 casualties brought about by terrorist attacks causes domestic products to be cheaper in international trade and more expensive to import goods leading to inflation. Effects of terrorism damages overall economic stability with a direct cost on humans. According to Gok et al (2019), overall stability can be damaged by Terrorism in several ways together with its direct cost on human lives.

E. Terrorism and Unemployment

Terrorism has become a multidimensional phenomenon that causes unemployment through the loss of human capital. Moreover, unemployment also has a negative effect on terrorism and young graduates are proven to have experienced being more targeted by terrorists (Lassoued et al., 2018) This can be attributed to the income inequality in developing countries, especially in the rural areas. Furthermore, Saddam et al., (2017) has also indicated that unemployment, due to poverty, causes people to be idle and join extremist groups.

The relationship between unemployment and terrorism is considered positive (Nabin et al., 2022) which means that as terrorism attacks increase, unemployment rates also increases and it goes the other way around as well. With high unemployment rates, terrorist target recruiting idle youth groups to join.

Terrorism is found to have a more notable impact on youth unemployment (Bagchi et al., 2018) specially in the MENAP region composed of Middle East, North Africa, Afghanistan, and Pakistan. Feldmann and Perala (2004) as well as Piazza (2006) has mentioned that average unemployment rate for each country possess a direct relationship with terrorism as it triggers idle workers to suffer from the unmet economic expectations leading them to turn to violence. In Nigeria, Oyefusi (2010) examines that youth participates more in political violence due to lack of education and employment opportunities.

However, the relationship between these two variables is still an under-researched area. But, it has been shown that the youth population is the most affected and targeted by extremist groups.

1) H4: Terrorism does not have an association to inflation and unemployment

Sun et al. (2021) discussed how different regions have different trends when it comes to terrorism-related activities. Moreover, their research showed that terrorism has a negative effect on different variables including inflation in territories of Africa, Pakistan, Kashmir-India. Similarly, Akhmat et al. (2014), found that unemployment and inflation among other economic variables has a positive association with terrorism in south asia. Terrorism increases endangerment costs for those participating in the labor force, as endangerment costs rise, there occurs labor supply distortions (Yaseen, 2019) Yogo (2015), in his study stated that external shocks can generate domestic inflation and act as an important source of fiscal risk. Terrorist incidents negatively affect the expansion of government spending which results in lower growth and higher inflation (Mckenna, 2005).

F. Terrorism in Pakistan

Pakistan is one of the top two countries which were attacked by terrorist organization in 2019 (Hu et al, 2019). For more than a decade, Pakistan has been one of the countries that are targeted by terrorist (Telis, 2008). Terrorism is also is the most signficant and major contributor in reducing the countries' economic growth (Hyder, 2015). According to the Government of Pakistan (2011), after the US invaded Afghanistan for the last 10 years, the economy suffered loss of an estimate of $68 billion. According to Malik and Zaman (2013), macroeconomic factors such as increase in population, level of prices, poverty, and political instability causes terrorism in Pakistan. Which was also supported by Arturo, et al (2015) as they stated that important determinants of terrorsim in Pakistan are these macroeconomic factors. It is reported that around 33.02% of Pakistan's real national income went into terrorism (Mehmood, 2013). Moreover, 9/11 is considered a significant part that forced Pakistan to face severe waves of terrorism historically as it attempted to reverse the regional and domestical policies in line with US policies against Taliban, Al-Qaida, along Pak-Afghan borders and other exteremists' facilitators in Afghanistan increased terrorism drastically.

(Aliabassa and Haidersyedb, 2020). By destroying vital infrastructure and economic opportunities, terrorists are threatening Pakistan's law and order system and human rights (Ismail and Amjad, 2014). In addition, for years the war on terror considerably affected the internal dynamic of Pakistan's demography and domestic securty. (Mustafa, et al, 2020).

1) H5: Terrorism has no long-term consequences to unemployment, and trade in Pakistan

According to Shahbaz (2013), the connection between economic stability, inflation, and terrorism is empirically proven. Inflation increases the likelihood of a terrorist attack, meanwhile terrorism is also majorly affected by economic growth. Immiserizng Growth Theory fuels terrorist attacks if economic growth cannot be passed on the poorest sections of the population. Environmental factors of economic development not reaching the poorest portions of the society benefits terrorist group to ask poor individuals to join their groups for terrorist activities or what is also called economic deprived by Gur (1968). On the other hand, growth in the economy can reduce terrorism if the development declines income inequality in the society (Shahbaz, 2013). Lassoued et al (2018) stated that income inequality can bring about economic growth because the investment needed to generate wealth requires a certain inequality of income distribution. Moreover, Malik and Zaman (2013) stated that unemployment, income inequality, and trade openness portray no long-term consequences in terrorism in Pakistan. Countries with prominent number of violence tend to lose the trust of their domestic and global investors leading to a decrease in both foreign and domestic investments (Zakaria et al., 2019).

G. Terrorism in Turkey

Terrorism has a large effect on the overall performance of an economy. These attacks on economic impact also depend on a country's vulnerability to attacks from domestic and international groups. (Arturo, et al, 2018). Bilgel and Karahasan (2016) presented how separatist terrorism is gravely suffered in Turkey which was rooted from underdevelopment. The historical evolution of the gap in regions shows dissimilarity in terms of the region's ability to use significant public and private resources. Furthermore, Abide et al (2005) showed that the higher the terrorist risk, the lower level of net foreign direct investment positions. Nitsch and Schumacher (2004) studied how terrorism affects the international trade of a country through examining a bilateral trade of 200 countries from 1960 to 1993. The study resulted to a result that terrorist activities reduce trade volume. Moreover, given Turkey's geographic location and the inequalities of segments in the society. Feridun and Sezgin (2008) highlighted that income inequality and underdevelopment are major determinants of violence propagation in the southeastern part of the country.

Takay et. al (2009) stated that terrorism has severer impact during periods of expansion and a decrease in economy activity breeds terrorism only in periods of recession. Considering eastern and southeastern turkey's regional growth patterns it can be seen that the impact of terrorism becomes more distinct (Ocal and Yildrum, 2010).

Synthesis:

Terrorism inversely affects economic variables, such FDIs. On the other hand, terrorism has a direct relationship to inflation, unemployment, and income inequality. Terrorism also has an indirect link to poverty as poverty is a crucial part in pushing individuals to take part in terrorism due to socio-economic reasons.

Theoretical Framework:

The researchers will be using Gries (2011) empirical model which investigated the enabling relationship between the economy and terrorism. Terrorism lowers activities in the economy by destroying important factors of productions, such as capital stock in terms of human as well as physical, which is connected to domestic production that is inversely affecting the growth of the economy. Terrorism influences economic stability by infecting its allocations on local resources, investments, as well as savings.

3. Research Method

This study will be quantitative in nature and will be a cross country analysis on the impact of terrorism. The purpose of this research is to analyze the effect of terrorism as well as compare if said impact to economic variables are similar across three countries. The study will make use of secondary data and will cover analysis on economic variables from Nigeria, Pakistan, and Turkey. The data will be extracted from the Global Terrorism Database (GTD), which is considered to be a comprehensive dataset on terrorism activities, providing the number of attacks, deaths, injuries, and even property damage. It is collected by National Consortium for the Study of Terrorism and Responses to Terrorism (START), which is a department of Homeland Security Centre of Excellence pioneered by the University of Maryland. The research will also be using the World Bank Database to get levels of inflation, unemployment, and FDI. Annual data for all variables for 30

years will be used.

Figures will be obtained using yearly dates from 1989-2019. Filer & Stanišić (2016) also used this data for their study to consider the intensity of terrorist incidents and to allow a perceived varying risk of terrorism over time. The researchers opt to study 2 low-middle income countries, Pakistan and Nigeria and 1 upper-middle income country which is Turkey because of their occurrence in the top countries with high Global Terrorism Index scores.

The research also wants to determine if what Cinar (2017) mentioned about low-income countries consistently having negative economic growth due to terrorism is true. Abadie and Gardeazabal (2007) stated that countries that are in the Middle Eastern, North African, Sub-Saharan African, and South Asian regions are affected the most. Nigeria, Pakistan, and Turkey have different economic standing as recorded in the World Development Report. Turkey is classified as part of the upper-middle income country, while Nigeria and Pakistan are lower-middle income countries. These will help the study to cover different perspectives in terms of impact of terrorism in the economy. As mentioned in our theoretical framework, basing on the empirical model by Gries (2011), we will be using a multiple linear regression to determine the relationship between multiple independent variables of terrorism, such as, incidents, deaths, and injuries to different individual economic variables, namely FDIs, inflation, and unemployment.

The dependent variables are specific economic factors such as foreign direct investments, inflation, and unemployment. Lassoued et al. (2018) retained these variables in their study as they observed an interdependent relationship between economic security and terrorism and added that the two are determined by said variables. The independent variable is terrorism, which is measured by the number of terrorist incidents per year, deaths, and injuries from the attacks.

Multiple linear regression will be used as it estimates the correlation between two or more independent variables and one dependent variable. Terrorism being the independent variable, while unemployment, inflation, and FDI being dependent variables. The study also wants to determine how strong the relationship is between two or more independent variables and one dependent variable using multiple linear regression.

A. Multiple Linear Regression Formula

$$y = \beta 0 + \beta 1\ X1 + \beta 2\ X2 + \beta 3\ X3 + \varepsilon$$

The equation above shows the multiple linear regression formula to be used. The variable y is the predicted value of the dependent variable which will be varying economic factors such as foreign direct investments, inflation, and unemployment. $\beta 0$ is the y-intercept which refers to the value of y when all other parameters (x) is 0. βn is the regression coefficient of the independent variable (Xn) which is the effect on the predicted y value for increasing the value of the independent variable. X1 is the value of terrorist attacks per year and the first independent variable. X2 is the number of deaths caused by terrorism and is the second independent variable. X3 is the number of injuries caused by terrorism and ins the third independent variable which is the last independent variable to be observed. ε is the model error or the error term.

B. Formulas for each economic variable to be measured

FDI $= \beta 0 + \beta 1$ *Terrorist Incidents* $+ \beta 2$ *Deaths* $+ \beta 3$ *Injuries* $+ \varepsilon$

Inflation $= \beta 0 + \beta 1$ *Terrorist Incidents* $+ \beta 2$ *Deaths* $+ \beta 3$ *Injuries* $+ \varepsilon$

Unemployment $= \beta 0 + \beta 1$ *Terrorist Incidents* $+ \beta 2$ *Deaths* $+ \beta 3$ *Injuries* $+ \varepsilon$

Further diagnostic tests such as, VIF Multicollinearity to measure the correlation of the regression analysis, White's test and Breusch-pagan to determine the presence of heteroskedasticity, test for normality of residuals to identify if the model is normally distributed and valid, Breusch-godfrey autocorrelation test to check autocorrelation in the errors of the model, Durbin-Watson to indicate any positive or negative correlation, Ramsey's RESET test to detect if there is any omitted variables, and lastly, Augmented Dickey Fuller was used in the study to determine whether the sequence of data is stationary or non-stationary.

4. Results and Discussion

Table 1
Significant relationship between terrorism and FDI inflows, unemployment, and inflation

Turkey	*Standardized Coefficients* *Beta*	*t*	*prob (p-value)*	*Interpretation*
		FDI Inflows		
(Constant)		5.935	.000	
Terrorism Attacks	.249	.547	.589	Not Significant
Terrorism Deaths	-.599	-1.451	.158	Not Significant
Terrorism Injuries	.350	1.391	.175	Not Significant
		Unemployment		
(Constant)		22.077	.000	
Terrorism Attacks	-.634	-1.356	.187	Not Significant
Terrorism Deaths	.256	.599	.554	Not Significant
Terrorism Injuries	.525	1.994	.057	Not Significant
		Inflation		
(Constant)		3.833	.001	
Terrorism Attacks	.515	1.272	.214	Not Significant
Terrorism Deaths	-.642	-1.747	.092	Not Significant
Terrorism Injuries	.523	2.333	.027	Significant

**Significant <0.05, Not significant >0.05.

Table 1 shows the relationship between the FDI inflows, unemployment and inflation of Turkey to terrorism. The result reveals that only inflation and terrorism injuries has a significant relationship with t-value and p-value of (t=2.333, p=0.027) which indicates also a positive relationship between the two variables as the inflation increases the terrorism injuries increase also. Other variables do not meet the necessary level of significance.

Table 2 shows the relationship between the FDI inflows, unemployment, and inflation of Pakistan to terrorism. The result conveys that FDI Inflows has a significant relationship to terrorism attacks with t-value and p-value of (t=-2.936, p=.007). The terrorism variable have a negative relationship, indicating that when the terrorism attacks increase, FDI inflows decreases.

While unemployment has a significant relationship with terrorism attacks with a t-value and p-value of (t=3.564, p=.001). Terrorism has a positive relationship with unemployment, indicating that as terrorism attacks increase, unemployment also increases.

Table 2
Significant relationship between terrorism and FDI inflows, unemployment, and inflation

Pakistan	*Standardized Coefficients Beta*	*t*	*prob (p-value)*	*Interpretation*
FDI Inflows				
(Constant)		-1.301	.204	
Terrorism Attacks	-0.001	-2.936	.007	Significant
Terrorism Deaths	0.001	1.934	.063	Not Significant
Terrorism Injuries	-0.0001	-.403	.689	Not significant
Unemployment				
(Constant)		-1.676	.106	
Terrorism Attacks	.002	3.564	.001	Significant
Terrorism Deaths	-.001	-1.648	.111	Not Significant
Terrorism Injuries	8.72466e-05	.279	.783	Not significant
Inflation				
(Constant)		14.06	6.08e-01	
Terrorism Attacks	-0.003	-4.758	5.83e-05	Significant
Terrorism Deaths	0.003	4.340	.0002	Significant
Terrorism Injuries	-0.0009	-3.459	.002	Significant

**Significant <0.05, Not significant >0.05.

Furthermore, inflation has a significant relationship between terrorism attacks, deaths, and injuries with a t-value and p-value of (t=-4.758, p=5.83e-05), (t=4.340, p=.0002), and (t=-3.459, p=.002), respectively. Terrorism attacks and terrorism injuries have a negative relationship with Inflation which indicates that as terrorism attacks and injuries decreases, inflation increases. While terrorism deaths shows a positive relationship. Indicating as terrorism deaths increases, inflation also increases. Other variables do not meet the necessary level of significance.

Table 3 shows the relationship between the FDI inflows, unemployment and inflation of Nigeria to terrorism. The result conveys that unemployment has a significant relationship to terrorism attacks with t-value and p-value of (t=4.898, p=.000) indicating a positive relationship between variables. While inflation has a significant relationship to terrorism injuries with t-value and p-value of (t=3.426, p=.002) indicating also a positive relationship between variables. Other variables do not meet the necessary level of significance.

Table 3
Significant relationship between terrorism and FDI inflows, unemployment, and inflation

Nigeria	*Standardized Coefficients Beta*	*t*	*prob (p-value)*	*Interpretation*
FDI Inflows				
(Constant)		8.435	.000	
Terrorism Attacks	-.525	-1.523	.139	Not Significant
Terrorism Deaths	.028	.059	.954	Not Significant
Terrorism Injuries	.030	.057	.955	Not Significant
Unemployment				
(Constant)		13.728	.000	
Terrorism Attacks	1.339	4.989	.000	Significant
Terrorism Deaths	-.299	-.795	.434	Not Significant
Terrorism Injuries	-.525	-1.299	.205	Not Significant
Inflation				
(Constant)		3.912	.001	
Terrorism Attacks	.064	.252	.803	Not Significant
Terrorism Deaths	-.663	-1.869	.073	Not Significant
Terrorism Injuries	1.306	3.426	.002	Significant

**Significant <0.05, Not significant >0.05.

The diagnostic tests results indicated no errors in the model in Nigeria for FDI inflows, unemployment, and inflation. VIF Multicollinearity, Breusch-Pagan test and White's test for heteroskedasticity, Residual Normality Test, LM test for autocorrelation up to order 1, and RESET test for specification indicates p-value greater than alpha ($p > 0.05$) therefore accepting the null hypothesis.

The diagnostic tests results indicated no errors in the model in Pakistan for FDI inflows, unemployment, and inflation. VIF Multicollinearity, Breusch-Pagan test and White's test for heteroskedasticity, Residual Normality Test, LM test for autocorrelation up to order 1, and RESET test for specification indicates p-value greater than alpha ($p > 0.05$) therefore accepting the null hypothesis.

The diagnostic tests results indicated no errors in the model in Turkey for FDI inflows, unemployment, and inflation. VIF Multicollinearity, Breusch-Pagan test and White's test for

Table 4
Diagnostic tests for Nigeria

	FDI Inflows	**Unemployment**	**Inflation**
VIF Multicollinearity Test -	Count of condition indices >= 30: 0 Count of condition indices >= 10: 0 No evidence of excessive collinearity	Count of condition indices >= 30: 0 Count of condition indices >= 10: 0 No evidence of excessive collinearity	Count of condition indices >= 30: 0 Count of condition indices >= 10: 0 No evidence of excessive collinearity
White's test for heteroskedasticity -	H_0: heteroskedasticity not present Test statistic: LM = 11.3 with p-value = P(Chi-square(9) > 11.3) = 0.255702	H_0: heteroskedasticity not present Test statistic: LM = 17.0738 with p-value = P(Chi-square(9) > 17.0738) = 0.0475731	H_0: heteroskedasticity not present Test statistic: LM = 16.8032 with p-value = P(Chi-square(9) > 16.8032) = 0.051888
Breusch-Pagan test for heteroskedasticity -	H_0: heteroskedasticity not present Test statistic: LM = 1.27292 with p-value = P(Chi-square(3) > 1.27292) = 0.735573	H_0: heteroskedasticity not present Test statistic: LM = 3.13596 with p-value = P(Chi-square(3) > 3.13596) = 0.208466	H_0: heteroskedasticity not present Test statistic: LM = 6.21172 with p-value = P(Chi-square(3) > 6.21172) = 0.101752
Residual Normality Test	H_0: error is normally distributed Test statistic: Chi-square(2) = 0.306467 with p-value = 0.857929	H_0: error is normally distributed Test statistic: Chi-square(2) = 3.46559 with p-value = 0.176789	H_0: error is normally distributed Test statistic: Chi-square(2) = 0.277054 with p-value = 0.87064
LM test for autocorrelation up to order 1	H_0: no autocorrelation Test statistic: LMF = 3.17135 with p-value = P(F(1, 27) > 3.17135) = 0.086196	H_0: No first-order autocorrelation (rho = 0) Test statistic: t(1) = 11.8105 with p-value = P(|t| > 11.8105) = 0.0537746	H_0: No first-order autocorrelation (rho = 0) Test statistic: t(1) = 5.90276 with p-value = P(|t| > 5.90276) = 0.106837
Durbin Watson	Durbin-Watson statistic = 1.30984 p-value = 0.0117503	Durbin-Watson statistic = 0.63867 p-value = 2.61481e-06	Durbin-Watson statistic = 0.849799 p-value = 0.000102391
RESET test for specification	Null hypothesis: specification is adequate Test statistic: F(2, 22) = 2.87935 with p-value = P(F(2, 22) > 2.87935) 0.857929	H_0: specification is adequate Test statistic: F(2, 22) = 2.87935 with p-value = P(F(2, 22) > 2.87935) = 0.0774927	H_0: specification is adequate Test statistic: F(2, 22) = 2.87736 with p-value = P(F(2, 22) > 2.87736) = 0.0776145

Table 5
Diagnostic tests for Pakistan

	FDI Inflows	Unemployment	Inflation
VIF Multicollinearity Test -	Count of condition indices >= 30: 0 Count of condition indices >= 10: 0 No evidence of excessive collinearity	Count of condition indices >= 30:0 Count of condition indices >= 10:0 No evidence of excessive collinearity	Count of condition indices >= 30: 0 Count of condition indices >= 10: 0 No evidence of excessive collinearity
White's test for heteroskedasticity -	H_0: heteroskedasticity not present Test statistic: LM = 7.78564 with p-value = P(Chi-square(9) > 7.78564) = 0.555885	H_0: heteroskedasticity not present Test statistic: LM = 8.95326 with p-value = P(Chi-square(6) > 8.95326) = 0.176224	H_0: heteroskedasticity not present Test statistic: LM = 5.69359 with p-value = P(Chi-square(9) > 5.69359) = 0.77015
Breusch-Pagan test for heteroskedasticity -	H_0: heteroskedasticity not present Test statistic: LM = 1.65253 with p-value = P(Chi-square(3) > 1.65253) = 0.647539	H_0: heteroskedasticity not present Test statistic: LM = 4.36436 with p-value = P(Chi-square(3) > 4.36436) = 0.224713	H_0: heteroskedasticity not present Test statistic: LM = 0.147877 with p-value = P(Chi-square(3) > 0.147877) = 0.985529
Residual Normality Test	H_0: error is normally distributed Test statistic: Chi-square(2) = 2.22345 with p-value = 0.328991	H_0: error is normally distributed Test statistic: Chi-square(2) = 4.77976 with p-value = 0.0916407	H_0: error is normally distributed Test statistic: Chi-square(2) = 0.300408 with p-value = 0.860532
LM test for autocorrelation up to order 1	H_0: No first-order autocorrelation (rho = 0) Test statistic: t(1) = 6.33598 with p-value = P(|t| > 6.33598) = 0.0996548	H_0: No first-order autocorrelation (rho = 0) Test statistic: t(1) = 0.480476 with p-value = P(F(1, 4) > 0.480476) = 0.526351	H_0: No first-order autocorrelation (rho = 0) Test statistic: t(1) = 0.696598 with p-value = P(|t| > 0.696598) = 0.612655
Durbin Watson	Durbin-Watson statistic = 1.07626 p-value = 0.0011281	Durbin-Watson statistic = 0.475014 p-value = 1.03205e-08	Durbin-Watson statistic = 0.475014 p-value = 1.03205e-08
RESET test for specification	H_0: specification is adequate Test statistic: F(2, 26) = 2.38678 with p-value = P(F(2, 26) > 2.38678) = 0.111775	H_0: specification is adequate Test statistic: F(2, 3) = 0.894375 with p-value = P(F(2, 3) > 0.894375) = 0.495848	H_0: specification is adequate Test statistic: F(2, 25) = 0.943221 with p-value = P(F(2, 25) > 0.943221) = 0.402794

Table 6
Diagnostic tests for Turkey

	FDI Inflows	Unemployment	Inflation
VIF Multicollinearity Test -	Count of condition indices >= 30:0 Count of condition indices >= 10:0 No evidence of excessive collinearity	Count of condition indices >= 30:0 Count of condition indices >= 10:0 No evidence of excessive collinearity	Count of condition indices >= 30: 0 Count of condition indices >= 10: 0 No evidence of excessive collinearity
White's test for heteroskedasticity -	H_0: heteroskedasticity not present Test statistic: LM = 8.75533 with p-value = P(Chi-square(9) > 8.75533) = 0.460159	H_0: heteroskedasticity not present Test statistic: LM = 8.89878 with p-value = P(Chi-square(9) > 8.89878) = 0.44667	H_0: heteroskedasticity not present Test statistic: LM = 16.9995 with p-value = P(Chi-square(9) > 16.9995) = 0.0487246
Breusch-Pagan test for heteroskedasticity -	H_0: heteroskedasticity not present Test statistic: LM = 2.80692 with p-value = P(Chi-square(3) > 2.80692) = 0.422363	H_0: heteroskedasticity not present Test statistic: LM = 1.92102 with p-value = P(Chi-square(3) > 1.92102) = 0.588959	H_0: heteroskedasticity not present Test statistic: LM = 1.85997 with p-value = P(Chi-square(3) > 1.85997) = 0.601972
Residual Normality Test	H_0: error is normally distributed Test statistic: Chi-square(2) = 1.41687 with p-value = 0.492413	H_0: error is normally distributed Test statistic: Chi-square(2) = 0.188237 with p-value = 0.910175	H_0: error is normally distributed Test statistic: Chi-square(2) = 1.309 with p-value 0.51970
LM test for autocorrelation up to order 1	H_0: No first-order autocorrelation (rho = 0) Test statistic: t(1) = 4.89068 with p-value = P(|t| > 4.89068) = 0.1284	H_0: No first-order autocorrelation (rho = 0) Test statistic: t(1) = 12.102 with p-value = P(|t| > 12.102) = 0.0524854	H_0: No first-order autocorrelation (rho = 0) Test statistic: t(1) = 13.0275 with p-value = P(|t| > 13.0275) = 0.0487719
Durbin Watson	Durbin-Watson statistic = 0.770668 p-value = 1.6976e-05	Durbin-Watson statistic = 0.659402 p-value = 2.98028e-06	Durbin-Watson statistic = 0.320428 p-value = 2.31478e-08
RESET test for specification	H_0: specification is adequate Test statistic: F(2, 26) = 0.742866 with p-value = P(F(2, 26) > 0.742866) = 0.485577	H_0: specification is adequate Test statistic: F(2, 24) = 0.666241 with p-value = P(F(2, 24) > 0.666241) = 0.52288	H_0: specification is adequate Test statistic: F(2, 26) = 0.174216 with p-value = P(F(2, 26) > 0.174216) = 0.841088

heteroskedasticity, Residual Normality Test, LM test for autocorrelation up to order 1, and RESET test for specification indicates p-value greater than alpha ($p > 0.05$) therefore accepting the null hypothesis.

The Augmented Dickey Fuller results showed that the values are lesser than alpha ($p<0.05$), therefore the null hypothesis of data being non-stationary is rejected. The model shows stationary data.

Table 7
Augmented-Dickey Fuller Test for Turkey

Terrorism Attacks	with constant	2.144e-011
	with constant and trend	0.009814
Terrorism Deaths	with constant	3.888e-025
	with constant and trend	9.466e-027
Terrorism Injuries	with constant	0.0001807
	with constant and trend	0.00199
FDI Inflows	with constant	0.0003182
	with constant and trend	0.002787
Unemployment	with constant	4.728e-005
	with constant and trend	0.0003286
Inflation	with constant	4.448e-010
	with constant and trend	0.04059

Table 8
Augmented-Dickey Fuller Test for Nigeria

Terrorism Attacks	with constant	1.122e-012
	with constant and trend	0.01416
Terrorism Deaths	with constant	0.003261
	with constant and trend	0.0229
Terrorism Injuries	with constant	5.039e-007
	with constant and trend	8.225e-006
FDI Inflows	with constant	0.02613
	with constant and trend	0.01126
Unemployment	with constant	0.0002818
	with constant and trend	0.0002308
Inflation	with constant	5.226e-006
	with constant and trend	0.03667

Table 9
Augmented-Dickey Fuller Test for Pakistan

Terrorism Attacks	with constant	0.0001665
	with constant and trend	0.00148
Terrorism Deaths	with constant	0.008043
	with constant and trend	3.181e-06
Terrorism Injuries	with constant	7.583e-10
	with constant and trend	8.738e-10
FDI Inflows	with constant	0.00492
	with constant and trend	0.02905
Unemployment	with constant	0.00177
	with constant and trend	5.689e-34
Inflation	with constant	0.0004406
	with constant and trend	0.003252

5. Summary, Conclusions, and Recommendations

A summary of the findings, the conclusion and recommendations are presented in this section based on the result of the study.

A. Summary

This research aims to identify the relationship of terrorism attacks and incidents to economic variables. It wants to investigate if the increase in the incidence of terrorism has an inverse effect to foreign trade and investments, unemployment, and inflation.

This study will be quantitative in nature and will be a cross country analysis on the impact of terrorism. This research aims to analyze the impact of terrorism as well as compare if said impact to economic variables are similar across three countries. The study will make use of secondary data and will cover analysis on economic variables from Nigeria, Pakistan, and Turkey. The data used will be taken from the Global Terrorism Database, which has a comprehensive dataset on terrorism activities, providing information on the number of terrorist related attacks, deaths, injuries, as well as property damage. The data for economic variables will be sourced from the World Bank Database. Multiple linear regression will be used as it estimates the relationship between multiple independent variables and only one dependent variable. Terrorism, in terms of the number of attacks, deaths, and injuries being the independent variable, while, unemployment, inflation, and FDI being dependent variables. The study also wants to determine how strong the relationship is between two or more independent variables and one dependent variable using multiple linear regression.

B. Summary of Findings

1) Significant relationship between terrorism and FDI inflows, unemployment and inflation in Turkey.

With a t-value and p-value of (t=2.333, p=0.027), which shows a significant, positive relationship between terrorism injuries and inflation. When terrorism injuries increase, inflation also increases. This can be due to terrorism attack locations in Turkey are long-distance and usually in rural, underdeveloped areas that are sources of domestic products (Feridun, 2008) endangering local prices by affecting the human capital that produces it.

Terrorism variables does not show any relation with foreign direct investments as locations of terrorist attacks are long-distance and in cases of high-density areas, terrorism groups usually attack military and police. Unemployment, on the other hand, also hold no relationship with any of the terrorism variables as it was said that in the MENAP regions (Middle East, North Africa, Afghanistan, and Pakistan), terrorism has more impact on youth that are not yet part of the labor sector.

2) Significant relationship between terrorism and FDI inflows, unemployment and inflation in Pakistan

With a t-value and p-value of (t=-2.936, p=.007), the result shows that FDI inflows have a strong correlation with a significant relationship to terrorism attacks. The terrorism variable shows a negative relationship with FDI inflows. As terrorism attacks decreases, FDI inflows increases. It greatly affects the economy of pakistan as terrorism affect several sectors such as construction, food, financial services, oil and gas, personal services, transport equipment, and trade resulting in investors shifting into a more secure economy. (Jailil, 2017).

Moreover, with a t-value and p-value of (t=3.564, p=.001) respectively, the result shows that unemployment have a strong correlation and significant relationship to terrorism attacks. The terrorism variables shows a positive relationship with unemployment. Demonstrating as terrorism attacks increase, unemployment also increases. This could be due to the loss of human capital as it affects the labor force endangering the labor supply causing a shock on unemployment rates.

Furthermore, there is a strong correlation with a significant relationship between inflation and terrorism attacks, deaths, and injuries, as shown by the t-value and p-value of (t=-4.758, p=5.83e-05), (t=4.340, p=.0002), and (t=-3.459, p=.002), respectively. Terrorism attacks and injuries shows a negative relationship. As terrorism attacks and injuries decreases, inflation increases. The increase in inflation may be caused by increased economic activity from a decrease in the number of attacks and injuries caused by terrorism. Economic activity brings about the expansion of the economy which increases inflation as evidenced from emerging economies. This is supported by Caruso and Schneider (2011) in their study which indicated that inflation is inversely correlated with terrorism. Other factors may also have an effect on inflation. The results showed that terrorism deaths have a positive relationship with inflation. As terrorism deaths increases, inflation also increases and according to Shahbaz (2013), various studies showed mixed results on the effect of terrorism on inflation.

3) Significant relationship between terrorism and FDI inflows, unemployment and inflation in Nigeria

The outcome shows a substantial correlation between terrorism variables, namely, unemployment and inflation to terrorism attacks and injuries.

Based on the results, terrorism attacks and unemployment in Nigeria has a strong, positive correlation. As the number of terrorism attacks increase, unemployment increases as well. This can be attributed to how poverty is a main driving force brought about by discourse of violence. As terrorism attacks increases, it affects different economic factors causing living conditions to be depressed, pushing people down to poverty, and usually causing counterproductive action for people to join terrorist groups, eliminating their participation in the labor market. Despite being Africa's largest economy, Nigeria is also one of the poorest countries in the world (Wilson, 2019)

Meanwhile, terrorism injuries have a positive, strong correlation with inflation. With terrorist groups causing havoc on human capital, which is one factor of production in total output of goods and services. Without trade activities because of the scarcity in supplies, goods and services cannot be bought and thus inflation will arise (Imhonopi & Urim, 2016). In Nigeria, terrorism activities usually lead to displacement of households and reduces total output and production of the economy (Alenoghena & Nwokoma, 2020). The reduction in total output of goods and services is what triggers inflation in the country.

C. Conclusion

Based on the findings and discussions, the following conclusions were drawn:

- As terrorism-related injuries increase, inflation in Turkey soars.
- Foreign direct investment in Pakistan rises if terrorist attacks decreases. If the number of terrorist attacks rises, Pakistan's unemployment rate declines. While the number of terrorist deaths rises, inflation rises. Additionally, if terrorist attacks and injuries decreases, inflation rises.
- Nigeria's unemployment rate rises along with the number of terrorist strikes. Additionally, inflation rises when terrorism does.

All of this suggests that the null hypothesis has been disproved using these variables.

Furthermore, by analyzing low-middle income countries, such as Nigeria and Pakistan to middle-upper income countries, like Turkey. All economic variables, namely, FDI, Unemployment, and Inflation are significantly affected in low-middle income countries meanwhile in middle-upper income countries, such as Turkey, only Inflation is greatly affected and it is not solely based on terrorism as there are other economic activities that naturally impact prices.

D. Recommendation

Based on the results of this research, the researchers recommend that the countries involved, namely, Nigeria, Pakistan and Turkey, should make ways to shift their focuses on affected economic variables whenever certain terrorism incidents occur. Whether in terms of creating policies to reduce terrorism incidents or cushion the impact of these incidents on foreign direct investments, unemployment, or inflation.

For Turkey, since terrorism injuries greatly affect inflation. It is recommended that fiscal policies to reduce the impact of inflation need to be put in place.

For Pakistan, since Inflation is proven to be greatly affected by all terrorism activities, such as attacks, deaths, and injuries, it is recommended to impose proper monetary guidelines and schemes to monitor the inflation rate in the country. Since terrorism is not the only cause of inflation, it is also suggested to focus on minimizing or eliminating other activities that may gravely affect prices in the economy. However, it is not solely inflation that is significantly impacted by terrorism, FDI inflows has a negative relationship with terrorism attacks and unemployment has a positive relationship with terrorism attacks. It is advised to implement services or policies that are proactive and provide a decent standard of living that could stray citizens away from joining violence causes.

For Nigeria, outcome of the study showing an impact to unemployment and inflation caused by terrorism attacks and injuries, respectively. Researchers recommend for policies that enables productivity in the labor market to prevent idle people from turning to terrorist groups that fuels violence in society. Moreover, they should strengthen monetary policies that address increasing inflation due to reduction of total output of goods and services that negatively impact the economic wellbeing.

References

[1] Abadie, A. and Gardeazabal, J., 2008. Terrorism and the world economy. European Economic Review, 52(1), pp.1-27.

[2] Abadie, Alberto, and Javier Gardeazabal. 2003. "The Economic Costs of Conflict: A Case Study of the Basque Country." American Economic Review, 93 (1): 113-132.

[3] Abbas, S. A., & Syed, S. H. (2020, September 9). Sectarian terrorism in Pakistan: Causes, impact and remedies. Journal of Policy Modeling.

[4] Abdul Rehman Khan, S. and Yu, Z., 2020. Terrorism in Emerging Economies: A Double-Edged Sword. Terrorism and Developing Countries.

[5] Abubakar, Mika & Tanko, Saidu & Abubakar, Aisha. (2017). The Impact of Insecurity on Foreign Direct Investments: Evidence for Nigeria. 7. 175-182.

[6] Agrawal, S., 2011. The Impact of Terrorism on Foreign Direct Investment: Which Sectors are More Vulnerable?. CMC Senior Theses. Paper 124.

[7] Akubor, E. (2016). Poverty and Terrorism in Northern Nigeria: Reflections and Notes on the Manipulation of the Almajirai System and its Implication for National Development. Modern Africa: Politics, History and Society,4(1),7 33.

[8] Alenoghena, Raymond & Nwokoma, Ndubisi. (2020). Terrorism and its effects on Nigeria's economic performance.

[9] Ali, A., (2010). Economic Cost of Terrorism. Strategic Studies, Vol. 30, No. 1/2, Spring & Summer 2010.

[10] Araz-Takay, B., Arin, K. and Omay, T., 2009. The Endogenous and Non-Linear Relationship Between Terrorism and Economic Performance: Turkish Evidence. Defence and Peace Economics, 20(1), pp.1-10.

[11] ARİ, Y., and IBRAHIM, B. (2021). TThe Impact of Terrorism on Foreign Direct Investment: The Case of Turkey. Third Sector Social Economic Review.

[12] Bagchi, A., & Paul, J. A. (2018). Youth unemployment and terrorism in the MENAP (Middle East, North Africa, Afghanistan, and Pakistan) region. Socio-Economic Planning Sciences, 64, 9–20.

[13] Bandyopadhyay, S., Sandler, T. and Younas, J., 2013. Foreign direct investment, aid, and terrorism. Oxford Economic Papers, 66(1), pp.25-50.
[14] Bandyopadhyay, S. and Younas, J., 2011. Poverty, political freedom, and the roots of terrorism in developing countries: An empirical assessment. Economics Letters, 112(2), pp.171-175.
[15] Bardwell, H. and Iqbal, M., 2020. The Economic Impact of Terrorism from 2000 to 2018. Peace Economics, Peace Science and Public Policy, 27(2).
[16] Bilgel, F. and Karahasan, B., 2016. Thirty Years of Conflict and Economic Growth in Turkey: A Synthetic Control Approach. London School of Economics and Political Science, (112).
[17] Bilgel, F., & Karahasan, B. C. (2016). The economic costs of separatist terrorism in Turkey. Journal of Conflict Resolution, 61(2), 457–479.
[18] Blomberg, S., Hess, G. and Orphanides, A., 2004. The macroeconomic consequences of terrorism. Journal of Monetary Economics, 51(5).
[19] Blomberg, S., Hess, G. and Weerapana, A., 2004. Economic conditions and terrorism. European Journal of Political Economy, 20(2), pp. 463-478.
[20] Celik, N and Bayrak, R. (2020) Does Terrorism Hinders Foreign Investments in Turkey? An Emprical Study with ARDL Bounds Test, Savunma Bilimleri Dergisi, The Journal of Defense Sciences Kasım, Issue 38, Nov. 2020.
[21] Çinar, M., 2017. The effects of terrorism on economic growth: Panel data approach. Zbornik radova Ekonomskog fakulteta u Rijeci: časopis za ekonomsku teoriju i praksu, Proceedings of Rijeka Faculty of Economics: Journal of Economics and Business, 35(1).
[22] Choi, S. and Luo, S., 2013. Economic Sanctions, Poverty, and International Terrorism: An Empirical Analysis. International Interactions, 39(2), pp.217-245.
[23] Choi, S., 2014. Economic growth and terrorism: domestic, international, and suicide. Oxford Economic Papers, 67(1), pp.157-181.
[24] Costalli, S., Moretti, L., & Pischedda, C. (2017). The economic costs of Civil War. Journal of Peace Research, 54(1), 80–98.
[25] Cost of conflict final - humanitarian library. (n.d.). Retrieved November 24, 2022. https://www.humanitarianlibrary.org/sites/default/files/2014/02/Cost-of-Conflict-in-Pakistan.pdf
[26] Danjuma, I. (2022). Insurgency, political risk, and foreign direct investment inflows in Nigeria: A Sectorial analysis. Central Bank of Nigeria Journal of Applied Statistics, 12(2), 27–57.
[27] Estrada, M., Park, D., & Khan, A. (2015). The Economic Impact of Terrorism: A New Model and Its Application to Pakistan, 37.
[28] Estrada, M., Park, D., & Khan, A. (2018). The impact of terrorism on economic performance: The case of Turkey. The Impact of Terrorism on Economic Performance; The Case of Turkey, 60.
[29] Feldmann, A.E. and Perala M. (2004), Reassessing the causes of nongovernmental terrorism in Latin America, Latin American Politics and Society, Volume 46, Issue 2, Summer 2004, Pages 101-132.
[30] Feroz, S., & Yasmin, B. (2021). Terrorism and brain drain in Pakistan: Is there a connection? South Asia Economic Journal, 22(1), 73–87.
[31] Filer, R. and Stanišić, D., 2016. The Effect of Terrorist Incidents on Capital Flows. Review of Development Economics, 20(2), pp.502-513.
[32] Gok, I. Y., Demirdogen, Y., & Topuz, S. (2020). The impacts of terrorism on turkish equity market: An investigation using Intraday Data. Physica A: Statistical Mechanics and Its Applications, 540, 123484.
[33] Hu, X., Lai, F., Chen, G., Zou, R. and Feng, Q., 2019. Quantitative Research on Global Terrorist Attacks and Terrorist Attack Classification. Sustainability, 11(5), p.1487.
[34] Hussain, S. (2017). Impact of Terrorism on Consumer Sentiment and Inflation Rates in Pakistan: A City-Level Analysis. https://pepp.hass.tsukuba.ac.jp/education/pdf/13th_economic6.pdf
[35] Haider, Murtaza & Anwar, Amar, (2014). Impact of terrorism on FDI flows to Pakistan, MPRA Paper 57165, University Library of Munich, Germany.
[36] Hyder, S., Akram, N., and Padda, I. (2015). Impact of Terrorism on Economic Development of Pakistan. Pakistan Business Review,
[37] Ilyas, S., Mehmood, B. and Aslam, R., 2017. Terrorism and Poverty: Double Trouble for Macroeconomic Performance in African Countries. African Journal of Economic Review, 05(1), pp.1-13.
[38] Ismail, A., & Amjad, S. (2013, December 12). Determinants of terrorism in Pakistan: An empirical investigation. Economic Modelling.
[39] Imhonopi, D., and Urim, U (2016) The Spectre of Terrorism and Nigeria's Industrial Development: A Multi-Stakeholder Imperative, African Journal of Criminology and Justice Studies: AJCJS, Vol. 9, Issue 1.
[40] Jalil, A., (2017) Impact of Terrorism on Foreign Direct Investment in Pakistan. Pakistan Journal Peace & Conflict Studies Volume 2, No.1. Jan-June 2017 pp. 1-10.
[41] Joseph, E., Barikui, T., Solomon, A., Felix, I. (2015) Th Impact of National Security on Foreign Direct Investment (FDI) in Nigeria, IOSR Journal of Business and Management (IOSR-JBM), Volume 17, Issue 5, pp. 69-74, May 2015.
[42] Khan, M., & Ahmed, T. (2019, March 7). Terrorism, military operations and Farmer's income in Waziristan (Pakistan). Journal of Policy Modeling.
[43] Krueger, A. and Malečková, J., 2003. Education, t and Terrorism: Is There a Causal Connection?. Journal of Economic Perspectives, 17(4), pp.119-144.
[44] Koseli, M., 2006. Poverty, Inequality & T, Inequality & Terrorism Relationship in Terrorism Relationship in Turkey. VCU Scholars Compass.
[45] Lassoued, T., Hamida, A. and Hadhek, Z., 2018. Terrorism and Economic Growth. International Journal of Economics and Financial Issues, 8(1), pp.175-178.
[46] Malik, Z., & Zaman, K. (2013). Macroeconomic consequences of terrorism in Pakistan. Journal of Policy Modeling, 35(6), 1103–1123.
[47] Maitah, M., Mustofa, J., & Ugur, G. (2017). The impact of terrorist attacks on foreign exchange rate: Case study of turkish lira versus Pound Sterling. Economies, 5(1), 5.
[48] Mckenna, J., 2005. Implications of Transnational Terrorism on International Trade. Duke University, Durham.
[49] Mehmood, S. (2013). Terrorism and the macroeconomy: Evidence from Pakistan. Defence and Peace Economics, 25(5), 509–534.
[50] Mehmood, S. (2013, January 1). Terrorism and the macroeconomy: Evidence from Pakistan. Munich Personal RePEc
[51] Meierrieks, D. and Schneider, F., 2021. Terrorism and international economic policy. European Journal of Political Economy, 69, p.102011.
[52] Mustafa, S. (2019) Impact of Terrorism on FDI inflow in Pakistan - A Time Series Analysis, American Based Research Journal, Vol. 8, Issue 3, March 2019.
[53] Nabin, M. H., Chowdhury, M. T., Bhattacharya, S., & Sgro, P. M. (2022). Terrorism and Uneven Economic Development. Economic Modelling, 113, 105870.
[54] Nitsch, V. and Schumacher, D., 2004. Terrorism and international trade: an empirical investigation. European Journal of Political Economy, 20(2), pp.423-433.
[55] Niyitunga, E. B. (2018). The Economic Effects of Terror Attacks and Their Impact on the African Union (AU) Agenda 2063, 10(4).
[56] Nwobueze, C., and John, Y. (2021) Terrorism and Businesses in North East: Implications for Economic Growth In Nigeria, International Journal of International Relations, Media and Mass Communication Studies.
[57] Öcal, N., & Yildirim, J. (2010). Regional effects of terrorism on economic growth in Turkey: A geographically weighted regression approach. Journal of Peace Research, 47(4), 477–489.
[58] Oyefusi, A. (2010). Oil, Youths, and Civil Unrest in Nigeria's Delta: The Role of Schooling, Educational Attainments, Earnings, and Unemployment. Conflict Management and Peace Science, 27(4), 326–346.
[59] Pakistan Business Review - pbr.iobm.edu.pk. (n.d.). Retrieved May 21, 2022.
[60] Piazza, J. A. (2006). Rooted in poverty?: Terrorism, poor economic development, and social cleavages1. Terrorism and Political Violence, 18(1), 159–177.
[61] Pratiwi, E., Abdullah, L., Abdullah, R., Wardana and Muhammad, R., 2019. Impact of criminal act of terrorism on economy. IOP Conference Series: Earth and Environmental Science, 235, p.012066.
[62] Prieto-Rodríguez, J., Rodríguez, J., Salas, R. and Suarez-Pandiello, J., 2009. Quantifying fear: The social impact of terrorism. Journal of Policy Modeling, 31(5), pp.803-817.
[63] Polyxeni, K. and Theodore, M., 2019. An empirical investigation of FDI inflows in developing economies: Terrorism as a determinant factor. The Journal of Economic Asymmetries, 20.
[64] Saleem, Q., Sidra, S., Rauf, A. and Siddique, H., 2020. Impact of Terrorism on Economic Growth in South Asian Country. International Journal of Economics and Financial Issues, 10(4).
[65] Shahbaz, M. (2013, March 27). Linkages between inflation, economic growth and terrorism in Pakistan. Economic Modelling.
[66] Shahbaz, M., Shabbir, M. S., Malik, M. N., & Wolters, M. E. (2013, July 13). An analysis of a causal relationship between economic growth and terrorism in Pakistan. Economic Modelling.

[67] Sun, C., Abbas, H., Xu, X. and Abbas, S., 2022. The impact of socio-economic and fractionalization determinants on terrorism in ESNA. Socio-Economic Planning Sciences, 79, p.101138.
[68] Terrorism and war on terror in South Asia: A threat to national.
[69] Tingbani, I., Okafor, G., Tauringana, V. and Zalata, A., 2019. Terrorism and country-level global business failure. Journal of Business Research, 98, pp.430-440.
[70] Uzuegbu-Wilson, E., 2019. The Impact of Poverty on Terrorism in North-Eastern Nigeria. SSRN Electronic Journal.
[71] Ullah, I., and Rahman, M. (2014). Terrorism and Foreign Direct Investments in Pakistan: A cointegration Analysis, Journal of Economics and Sustainable Development.
[72] Yogo T. U. (2015) “Terrorism and Fiscal Policy Volatility in Developing Countries: Evidence from cross-country and Panel Data”, Etudes et Documents, n° 14, CERDI.
[73] Yaseen, A. (2019) "Effects of Terrorism on Labor Market: A Case Study of Iraq". Topics in Middle Eastern and North African Economies, electronic journal, 21, 1, Middle East Economic Association and Loyola University Chicago, 2019.
[74] Zakaria, M., Jun, W., & Ahmed, H. (2019). Effect of terrorism on economic growth in Pakistan: An empirical analysis. Economic Research-Ekonomska Istraživanja, 32(1), 1794–1812.