Vicious Triangle of Transitional, Security, Uncertainty and Poverty

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Abstract

This study explores the interconnected relationship between terrorism, insecurity, and poverty in Pakistan, forming a vicious triangle that undermines economic growth and social stability. Using data from 1980 to 2010, the study demonstrates how terrorism leads to heightened uncertainty, which significantly reduces investments—both foreign and domestic. This decline in investment, in turn, exacerbates unemployment, aggravates poverty, and fosters conditions conducive to further terrorist activities. The research highlights the negative impact of terrorism on Gross Capital Formation (GCF) and Foreign Direct Investment (FDI), revealing their inverse relationship with poverty levels. Furthermore, the study applies Granger Causality and Johansen Co-integration tests, which confirm the existence of long-run relationships between terrorism, investment, and poverty. The findings suggest that terrorism both contributes to and is exacerbated by poverty, creating a self-reinforcing cycle that hinders economic development. To break this cycle, the study recommends targeted policy measures, including job creation in terrorism-prone areas, educational improvements, and strategies to enhance Pakistan's international image to attract investment. The study underscores the need for a comprehensive approach that addresses both the immediate and structural causes of terrorism, uncertainty, and poverty to foster long-term economic stability in Pakistan.

Keywords: Terrorism, Poverty, Uncertainty, Investment, Economic Growth.

Introduction

The society of Pakistan is undergoing changes and the state has struggled to fulfil the needs of its population (Zadi, 2005). The Pakistans economy is characterized by low rates of economic growth, low human development, and high levels of inequality in resource allocation. When looking into the underlying factors of the issue, the emergence of a new form of economic security has added more layers to the economic architecture of the country. This inflicts a self-reinforcing vicious cycle of 'new' form of economic security, Schrecken berichte, and scarcity, transitioning as a noticeable issue of income and employment in Pakistan's economy.

Today, the world is battling terrorism in all its forms. The event of September 11, 2001 has changed the world's socio-economic and global political positioning for good. Pakistan is one of the countries which has suffered immensely because of these dynamics, where terrorism is compromising the already fragile law and order situation and human rights, and destroying infrastructure and available economic opportunities. The impact of terrorism on investment is important as it impacts the employment market and the economy as a whole. See Dutch National Bank (2005), Frey et al (2007) and TTSRL (2008) for a more comprehensive approach to the cost of terrorism.

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By their research, these acts of terrorism create more uncertainty, which in turn reduces activity in the financial markets, decreases investments, and increases unemployment with lower income.

Pakistan is facing terrorism which is slowly weakening its social fabric, economic growth, and its political system. The impact of such acts has immediate effects associated with the loss of life, damage to property, and adverse impact to the economy. Also, terrorism creates a state of adverse uncertainty which causes lower confidence, higher perceptions of risk, and reduced investment, thus stalling economic growth. More recent studies like Abadie (2020) show how terrorism has long lasting negative effects on economic development and foreign direct investments. These studies build on the work of Frey et al (2007) but have a focus on the international capital market and how their participation worsens the situation. Richardson (2011) is credited with a radical extension of the analysis of terrorism where he explains violence in terms of socio economic deprivation and high levels of unemployment among the educated classes. This disconnected youth can become more violent if they are met with adversity from systems of corruption and nepotism. Such socio-economic disorder tends to lead to violence - in this case terrorism. In a similar context, Ali and Tahir (2023) studied the connection between youth unemployment and radicalization in Pakistan building on Richardson (2011).

Educated youngsters without job options available to them tend to increase the levels of terrorism in the region. This study emphasizes how an employment gap is crucial in lower the levels of radicalism behavior.

Poverty exists and continues to be a growing concern. It is not only increasing in rates but also expanding everywhere such as in Pakistan where poverty is widespread especially in rural regions that house almost 70% of the country's populace. The people in these regions heavily rely on agriculture as a source of income and do not have access even to the most basic amenities like clean drinking water, health facilities, education, or social welfare. Within a mere time span of just three years, the Holes are Planning Commission noted a shocking hike in the poverty rate of the country from 23.9 percent to 37.5 percent. The commission placed a projection back in 2005 suggesting that over 35.5 million people were living under the poverty line. By the year 2008 it was estimated that this number had drastically increased to over 64 million. This poses a huge problem to the macroeconomic policies of the state. There was post 9/11 terrorism activities direct link established between poverty and terrorism. There is literature on conflict which argues that poverty is a contributor to political instability and civil war, hence the association of terrorism to poor economic condition becomes rational. Williams (2021) connects the emergence of poverty in conflict regions to the decline in political and social conditions, expressing the need for poverty alleviation in fighting terrorism. This complements the work of Gurr (1971) who regarded frustration as one of the core reasons behind aggressive behavior, a frustration that could culminate into terrorism, if coupled with socio-economic deprivation.

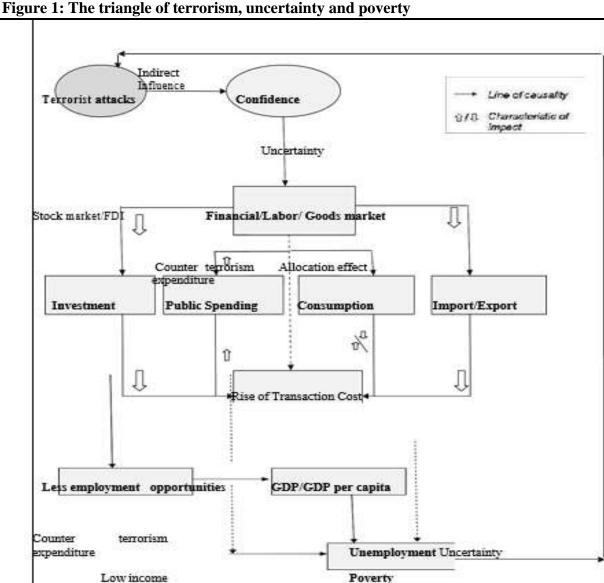
There is a triad of transitional uncertainty and poverty. In our case, we will fill in this gap by using data regarding these variables from Pakistan's economy for the years 1980 - 2010. After this introduction, the study intends to construct an economic problem that will underexpose through literature. After this background, we intend to devise a methodology to try and achieve all our goals of the study. In the end, the study will provide suggestions and directions for further research of this issue.

Conceptual Framework

In this part of the study a conceptual frame work of triangle among transitional security, uncertainty and poverty has been developed. Poverty caused frustration and deprivation amongst the people which among the causes to push them for Terrorism and leads to

transitional security. It has adversely affected development and imposed heavy economic sanction on the economy and the general loss of confidence and creates uncertainty in the economy and the consequent inability to attract foreign inflow and domestic capital formation. Simultaneously high military expenditure, enhanced transaction costs and budget deficit complexity which leads to economic distortions affecting economic growth, unemployment, poverty which induce them to terrorism.

It is argued that poor economic conditions may lead to participate in terror attacks, allowing terror organizations to use them for terrorist's activities more confidently. High levels of unemployment enable terror organizations to recruit more educated, mature and experienced suicide terrorists who in turn attack more important targets. Any connection between poverty and terrorism is indirect, complicated.



Source: Transnational Terrorism, Security and Rule of Law (TTSRL, 2008).

Figure 1 draws this triangle starting from Terrorism which leads to ruin confidence indirectly and creates uncertainty in the economy. This uncertainty adversely affects the financial, goods and labor markets and resulted in fall of local and foreign investments and international trade also. On the other sides and fights against terrorism increases defence expenditure and consequently public expenditure increased which suffers the human development expenditure i.e. health, education, basic need food and shelter etc. With the accumulation of these factors, the economy growth process slowdowns, opportunities of employments reduce; unemployment problem exaggerates which ultimately amplify the poverty problem. Because of this uncertainty and poverty, the feeling of deprivation, frustration, and rebellion permeates and terrorist's organization tries to cash these human feelings and emotions. This help out the terrorism which consequently again piercing in the economy and arises socioeconomic and political problem in homeland.

Literature Review

A large number of literatures support the hypothesis of having relationship between terrorism and its impact on different economic variable, main point of investigation was its impact on investment (Enders et al, 2005), little literature supports its impact on other variable, while the determinants of terrorism were also getting greater importance of researchers (Adrew & Siems , 2004, Alberto & Greaseball , 2007), but unfortunate the dimension of poverty caused by this terrorism is ignored. This research tries to identify the vicious triangle of terrorism, investment and poverty.

Blomberg and Mody (2005) find a negative relation between violence and international investment. They take three measures of violence as independent factors such as terrorism According to them violence in form of terrorism, revolutions and wars, according to authors, developing countries are mostly become victim of this violence as this cause a decrease in foreign investment inflow. While Walter et al. (2005) also show that the post 9/11 circumstances had a little lasting effect on US foreign direct investment flows. They also examine the effect of terrorist attacks against US interest shown in FDI, the results reveals that such attacks has a significant but small impact on these stocks in OECD countries, while Greece and Turkey has larger decline. They also give an argument that terrorist attacks to limit FDI are cost effective.

This effect of terrorism on foreign investment inflow is of great concentration of researchers, Alberto and Gardeazabal (2007) are of the view that the mobility of productive capital in an open economy creates a difference between the direct and the equilibrium level of terrorism. Their empirical model based on the assumption that terrorism has a greater impact on the allocation of productive capital and reduces the expected returns from investment, this cause a large movement of capital across countries. Results show a negative relation exists between terrorist risk and net foreign direct investment position. Other thing being constant, the average increase in the terrorist risk is associated with a fall in FDI about 5 percent of GDP. Some of researches also identify the side areas where one can mitigate the losses of FDI inflow, for instance Subhayu et al. (2009) have modified terrorism and FDI relationship by introducing a new dimension of foreign aid flow. They use data from 1984 to 2008 of 78 countries and find that terrorism depress FDI, but aid mitigate the negative effect of total and terrorism on FDI. Results also reveals that FDI is an important engine of growth, therefore aid can curb the risk to FDI for terrorism.

The question can put in other way that if terrorism can affect FDI inflow in the economy, what is the possible consequences arises due to this decrease, literature support that overall investment which includes domestic and foreign direct investment can improve the overall economic condition (Edwin & Hussaien, 2004, Khaliq & Noy, 2007) the increase in investment may has a positive impact on labor market by increasing employment opportunities (Lipsey et al., 2010; Sumei et al., 2008), while it has also a positive impact on productivity of any economy.

This positive effect of investment on employment and productivity in turn decrease poverty level of certain economy (Michael et al., 2001; Jerrold & Theo, 2006). With same notes Tambunan (2005) focuses the impact of foreign direct investment in country's economic development. They are of the view that now-a-days, countries fill the gap of investment through FDI and get maximum benefits by utilize their resources in a well-managed way. He takes Indonesia as case study and evaluates the impact of FDI on Indonesian economy and poverty reduction. By literature review, he argues that FDI may have a positive impact on poverty reduction in three ways, first FDI utilize the abundant factor of production in effective way and at the same time export growth, from second way by growth in domestic industry due to knowledge spill over, this growth in local industry and increase in investment support poverty alleviation, not only by increasing job opportunities but also due to increased tax revenues in the economy is the third source. The result support that the job creation through FDI and export increase the standard of living, but no evidence supports second and third argument.

The impact of terrorism at micro level is also reported by previous literature. Frey et al. (2007) tries to analyze the cost of terrorism at micro level, as they are of the view that the economic consequences is only a part of overall cost of terrorism which is understood, but the utility losses caused by terrorism should be a point of research. By highlighting the basic flaws in Contingent valuation surveys methods, they use life satisfaction approach, in which utility is approximated by subjective well-being. The analysis reveals that the utility losses due to terrorism are far exceed and more crucial than purely economic consequences. At the same time, Waheed and Ahmad (2011) target the informal labor market of Lahore and evaluate the impact of terrorism of its day laborer. By considering economic effect, they are of the view that terrorism has a threaten impact on the working condition of daily laborer in two ways, on one side, terrorist activity cause a regular decline in productive working days, on the other side, people are also become more careful while hiring them, resulted a decrease in chance of getting day work.

Therefore, terrorism causes a decrease in the job opportunity for this laborer, but also a decline in their income and standard of living. If terrorism increases unemployment thus poverty by reducing investment, then previous literature witness for the fact that poverty also increases the risk of terrorism. Such as Piazza (2006) analyses the hypotheses of having a causal effect of poverty, inequality and poor economic growth with terrorism. He uses panel data of ninetysix countries from 1986-2002, his findings reject the popular opinion and find no significant relation among any variable of economic development and terrorism. On the other hand, state-political variable is found to be significant. Enders and Hoover (2003) refer to the fact that the large number of terrorist attacks is reported in low-income countries which prove the notion that poverty causes terrorism. They analyze this relationship in two ways, first they use the data set which has the number of terrorist acts into domestic and transnational incident and secondly, they allow nonlinear relationship between terrorism and poverty by splitting sample and using transition regression estimation technique. From first analyses, their results show that poverty has a very distinctive effect on each type of terrorism and from second analyses, they find that poverty has a very strong influence on domestic terrorism, but this influence become smaller in case of transnational terrorism. Elbakidze and Yanhong (2007) point out socio-economic condition for greater ratio of transnational terrorism. The data consist from 1980 to 2000 indicate strong correlation between economic conditions and participation in terrorist related activities specially the existence of non-linear relationship between per capita income and participation in transnational terrorist activities. The results suggest that the extreme poverty may prohibit the opportunities to participate in terrorist act while relative alleviation of poverty level may provide marginal resources to participate in terrorism act.

The lower level of education may also promote terrorist activities among poor labor force, while relative improvement in education from secondary to tertiary education reduce terrorist acts among poor labor force. Results also indicate the significant impact of economic freedom, openness to trade, income equality and religion on terrorism acts. Goldstein (2005) finds political freedom is a key factor of terrorism; they also support the recent conclusion that linguistic fractionalization and geography are both related to terrorist risk as well. Their results also reveal that adult unemployment rate increase the possibility to be included in terrorist activities as this increase in unemployment leads to an increase in income inequality which has a significant correlation with terrorist risk.

Becker and Rubinstein (2010) have a point of view that the distortive impact of terrorism is limited by the economic benefit to overcome natural tendencies to react in uncertainties. They take micro level data from Israeli CBS expenditure survey and daily terror incident and find no impact of the terror attacks on the demand of that goods and services that were subject to terror attacks. They also find that during strikes and terror threats educated people are less likely to reduce their usage of bus service than less educated people.

Methodology

In the era where every country tries to make its economy strong, there is threat of uncertainty in some countries as well. Theory is of the view that the growing threat and causalities due to terrorism reduce the growth pace of economy. This terrorism can affect investment, government expenditure at greater intensity which directly affects the standard of living of people by increasing unemployment (Blomberg and Mody, 2005). This paper tries to analyze the impact of terrorism on investment and poverty. In other words, this paper tries to develop a triangle between terrorism, uncertainty and poverty. This research takes terrorism and its impact on poverty as basic objective by taking investor uncertainty as mediator with the reason that the terrorism has a strong impact on investment flow from domestic as well as foreign sect. To test the hypothesis that terrorism will lead to reduce investment and increase inequality, the study takes Total terrorist incident (terrorism incident), investment both foreign and domestic, Gini coefficient. Total Terrorist incident is used for transitional security as it captures different aspects of terrorist attacks as it is related to the actual uncertainty condition in the economy (Goldstein, 2005), The second important variable is the foreign direct investment (FDI)as better financial systems, and healthy business environment are able to exploit FDI more efficiently. FDI growth indirectly promotes small and medium size entrepreneurial activities, better law and order situation allow these entrepreneurs in the economy to take advantage of knowledge spillovers from FDI which cause a reduction in poverty (Laura et al, 2000), (Mahmoud, 2008)). Another important measure for investment is Gross capital formation (GCF), this measures also helps to see the pace of investment in the economy and is helpful to reduce poverty as well. The Gini coefficient is used as measure of poverty because theory and economic literature like Piszza (2004) in his paper "Rooted in Poverty? Terrorism, Poor Economic, Development, and Social Cleavages" and Abadie(2004) in his paper "Poverty, Political Freedom, and the Roots of Terrorism" used Gini coefficient as a measure of poverty. It is understandable that income inequality along with the extent of poverty also effects the terrorism. The other measure of poverty is headcount which will be used in other studies in future research.

Model Structure and Hypothesis

Above variables are used to generate the relationship: POV = f (FDI, GCF, TERR) This can further explain as

$$POV = \alpha_0 + \alpha_1 TERR + \alpha_2 GCF + \alpha_3 FDI + \varepsilon_t \dots (1)$$

Theories suggest there is a positive relationship between Gini coefficient as measure of poverty

and terrorism. The GCF is the variable which negatively affects the poverty ratio in many countries. When there is more domestic investment activities, more employment and income opportunities will be generated, which cause a reduction in income inequality level in the country, The last variable which is used to test the impact of financial development on income inequality is the FDI, it indicate the pace of development indirectly, as smoother environment ensure more FDI of the country, the possible impact of this variable is again negative on poverty and income inequality, (Hung, 2005).

Model Estimation Approach

The time series observations are used to take decision about the existence of stochastic process to test for stationary. Further Augmented Dickey Fuller (ADF) unit root test is used to guess either unit root problem exists or not.

For model specification Co-Integration Analysis has been utilized and it comprises of the long run relationship of one variable with other variables. Further Johansen (1988) and Johansen and Juselius (1990) referred use to multivariate co-integration methodology as under:

$$S_t = (POV, FDI, GCF, TERR)$$

To find the short run effect of different variables (FDI, GCF, TERR) on poverty and income inequality, the error correction model is used Error Correction Model (ECM) terms which have negative sign and value between '0 and 1' indicates convergence of model towards long-run equilibrium and shows how much percentage adjustment takes place every year. For this purpose, following specification is used:

$$\Delta POV = \frac{\Delta POV}{\gamma \eta_{\tau-1} \sum_{i=1}^{p} \beta_{TERR} \Delta TERR_{\tau-i} + \sum_{i=1}^{p} \beta_{GCF} \Delta GCF_{\tau-i} + \sum_{i=1}^{p} \beta_{FDI} \Delta FDI_{\tau-i}}$$

Where v_t is the error term and \Box and δ is short run speed of adjustment.

Granger's Causality Test

To check the triangle between terrorism, uncertainty and poverty, granger causality test is one of the suitable tests. The first attempt at testing for the direction of causality was proposed by Granger (1969). Granger's test is a general approach for detecting the presence of a causal relationship between two variables. This study analyzes the causality among three main variable of the study which is Terrorism, Investment, Poverty below:

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\begin{array}{lll} \text{Poverty}\,\,t &=& \alpha \, \text{Investment}\,\,_{t\text{-}I} \,+\, \beta \, \text{Poverty}\,_{t\text{-}j} \,\,_{1} \\ \text{Investment}\,\,_{t} &=& \lambda \, \text{Poverty}\,_{t\text{-}i} \,\,+\, \gamma \, \text{Investment}\,\,_{t\text{-}j} \\ \text{Poverty}\,\,_{t} &=& \alpha \, \text{Terrorism}\,_{t\text{-}I\text{+}} \, \beta \, \text{Poverty}\,_{t\text{-}j} 2 \\ \text{Terrorism}\,\,_{t} &=& \lambda \, \text{Poverty}\,_{t\text{-}i} \,\,+\, \gamma \, \text{Terrorism}\,_{t\text{-}j} \end{array}
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Date Collection Technique

To develop a relationship between terrorism, investment uncertainty and poverty, the study use data from multiple sources. Data on financial development i.e. GINI coefficient, Gross Capital Formation and FDI is extracted from World Development Indicators (2012) and the data for terrorist incident has been used from the Global Terrorism Database (GTD, 2011). All variables are used after taking the log value to ensure the accuracy of estimates.

Estimation and Results

This study is an initial attempt to analyse the relationship between transitional security, investment uncertainty and poverty in Pakistan. This study empirically estimated whether a statistically significant both way relationship exists between terrorism and poverty in the long- run as well as in the short-run. The preliminary step in this analysis is concerned with establishing the degree of integration of each variable.

For this purpose, to get reliable results of equation 1, the implicit assumption is that variables in equation 1 are I(1) and co-integrated. For this purpose, this study applies the test for the existence of a unit root in the level and first difference of each of the variables in our sample using the Augmented Dickey Fuller (ADF) test. The results presented below explain that all other variables are non-stationary in their level data. However, stationary is found in the first differencing level of the variables log of GINI coefficient, log of GCF, log of TERR, and log of FDI (Table -1).

Table 1: Unit Root Test – ADF Test					
	Leve	Ls	First Difference		
	Test Statistics	p-values	Test Statistics	p-value	
Log(POV)	-2.7293	0.0788	-5.5003	0.0001	
Log(TERR)	-1.4537	0.5441	-7.4995	0.0000	
Log(GCF)	-0.8589	0.7889	-7.0451	0.0000	
Log(FDI)	-2.2335	0.1993	-4.8252	0.0006	

Note: ADF test is used for stationary and all the variables are stationary at their first differences and 5% level of significance is used.

After establishing that all the individual series under consideration are stationary at first difference, the traditional co-integration method is used to estimate the long-run relationship among the variables, particularly POV, terrorism, GCF and FDI.

Table 2: Co-integrating Trace Statistic Values – Johansen Co-integration					
Null	r=0	r≤1	r≤2	r≤3	
Alternative	r≥1	r≥2	r≥3	r≥4	
Trace Statistics	57.7003	29.7971	12.5811	3.1583	
Eigen Value	0.6311	0.4589	0.2858	0.1067	
Critical Value(0.05)	47.8561	29.7971	15.4947	3.8415	
Probability	0.0046	0.0503	0.1311	0.0755	

The results from the Johansen Co-integration analysis are summarized in Table 2, where the maximum Eigenvalue examines the null hypothesis of no co-integration against the alternative of co-integration. Starting with the null hypothesis of no co-integration (R=0) among the variables, the trace-test statistics is 57.70, above the 5% critical value of 47.86. Hence, it rejects the null hypothesis R=0 in favor of the general alternative R ≥1. It is evident from the above analysis *that* R ≤1 can be rejected at the 1% level of significance hence, its alternative of R=2 is accepted, consequently we accept that there are four cointegrating relationships among GINI coefficient, terrorism incident, GCF and FDI.

Table 3: Max-Eigen Statistic Values					
Null	r=0	r≤1	r≤2	r≤3	
Alternative	r≥1	r≥2	r≥3	r≥4	
Max-Eigen Statistic	27.9253	17.1940	9.4227	3.1583	
Eigen Value	0.6311	0.4589	0.2858	0.1067	
Critical Value(0.05)	27.5843	21.1316	14.2646	3.8415	
Probability	0.0452	0.1630	0.2526	0.0755	

The maximum Eigen value test, the null hypothesis of no co-integration is rejected at the 1% level of significance in favor of the alternative, as Max-Eigen statistics (27.9253) are greater than 5% critical value which is 27.5843 but for R = 1, the null hypothesis of no co-integration is accepted while for R = 3, it is again rejected. Therefore it is concluded that overall that there are four co-integrating relationship on the basis of trace value and one co-integration equation on the basis of maximum Eigen value amongst the four I (1) variables. In short, the analysis of this study which is made on the basis of annual data from 1980 to 2010 support the proposition that there exists a stable long-run relationship among GINI coefficient, terrorism, GCF and FDI in Pakistan. On the basis of co-integration relationship which is found in previous analysis, the short-run relationship between POV and different independent components (FDI, GCF, TERR) can be estimated. Results of the ECM are given below:

$$LPOV = 5.8307 + 0.6925 (LTERR) - 0.1404 (LGCF) - 0.1926 (LFDI)$$

(0.0515) (0.0221) (0.0199)
[3.1542] [-6.3444] [4.6365]

Above results show a significant relationship between poverty (LPOV) and terrorism incidence (TERR), which confirmed the hypothesis that the terrorism is positively related to poverty, as the increase in terrorist incidence will increase poverty in the Pakistan economy.

The results shows a negative relationship exist between poverty and log of domestic investment (LGCF) in case of Pakistan economy. This shows that in case of Pakistan lesser credit has been used in investment purposes, the high terrorist incidence create difficulty in promoting investment activities which in turn minimize generation of employment and income opportunities in the country.

The third variable which is LFDI has a significant and negative relationship with poverty at 1% level of significance. Laura, et al (2000), Mahmoud (2008)) also show a negative and significant effect of FDI on income inequality.

Granger Causality

For the purpose of analysis, two causal relationship has been analyzed, one is the causal relationship among investment and poverty, and second comprised with terrorism and poverty.

Table 4: Granger Causality results (1 lag)			
Regression	Granger causality test		
Causality with one lag			
L Invt on L Poverty	7.18234* (0.000)**		
L Poverty on L Invt	0.14971* (0.7012)**		
* F-value ** Probability value			

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Table 5: Granger causality results (2 lag)			
Regression	Granger causality test	_	
Causality with one lag		_	
LTerr on L Poverty	2.18234* (0.1680)**	_	
L Poverty on L Terr	0.14971*(0.7012)**		
Causality with two lags		_	
LTERR on LGINI	2.92840* (0.0679)**		
LGINI on LTERR	4.45712*(0.0372)**		

^{*} F-value ** Probability value

The results shows that with the increase in investment can decrease poverty rate in the economy, which is one way causal relationship between investment and poverty. But at the same time Granger's causality test indicates no causal relationship of terrorism and poverty at one lag with the direction of causality from both ended. On the other hand, the results of Granger's Causality test at second lag show the two way causal relationships between these two variables. So by the results it is conclude that the terrorism has a causal effect on poverty and poverty has a causal effect on terrorism.

Theoretical Explanations of Findings

Terrorism and Investment

Blomberg and Mody (2005) state that both foreign and domestic violence, most especially terrorism, creates a negative impact on investment." This quote goes hand in hand with what has been studied regarding terrorist incidents in Pakistan. Violence through terrorism has resulted in the uncertainty of the economy, thus making investors avoid trying to finance them because of all the risks involved. This evidence is supportive of the Uncertainty theory because the instability of the economy due to terrorism causes a decreased investment level (TTSRL, 2008). "Frey et al (2007) define terrorism not only as a phenomenon that leads to death but as an issue responsible for direct economic losses and destruction of basic societal functions." This societal function destruction creates impeding and investing in trade opportunities which serves a fundamental purpose towards economic improvement. The effect caused due to investments decreasing and the markets being disrupted, as seen in Pakistan, worsens over time since it slows down the economic growth.

Poverty and Terrorism

Richardson (2011) and Gurr (1971) argue that unemployed youth in prominent societies are more likely to resort to terror when they feel aggrieved or deprived. In Pakistan, growing poverty particularly in rural areas creates an atmosphere of hopelessness, which can easily be exploited by extremist groups. The analysis indicates that there exists a correlation between poverty and terrorism in Pakistan. In essence, poverty is violence-inducing.

This is consistent with the Relative Deprivation Theory, which suggests that socio economic inequalities and lack of access to necessary resources result in violent behavior. The data indicates that violence perpetrated by terrorists has greatly exacerbated poverty in Pakistan, thereby creating a condition in which terrorism and poverty mutually sustain each other.

Uncertainty and Economic Growth

Enders and Hoover (2003) report that terrorist acts foster economic uncertainty that stifles growth opportunities. This study argues that terrorism causes a decrease in gross capital formation (GCF), which is critical for investment in infrastructure and other productive activities. A decline in GCF, in turn, has an adverse effect on the labor market by limiting employment opportunities and inundating the country with greater levels of poverty.

The rise in military spending and the increase in transaction cost, as presented in the conceptual framework of this study, shift the focus from spending on education and development projects to counter terrorism projects. Such "misallocation of resources" leads to underdevelopment of the whole economic structure, ultimately having dire consequences on poverty and human development.

The Interactions in the Vicious Triangle

The important part of this study is that, terrorism also increases poverty and it leads to even more aggravating uncertainty. As TTSRL (2008) points out, terrorism increases risk perceptions, which decrease foreign direct investment (FDI) and even disrupt the financial

markets. This cycle of uncertainty shrinks investment, either public or private, which sustains economic stagnation and deepens poverty. Johansen Co-integration analysis supports this claim as well since they highlight that investment and poverty, along with terrorism, have a stable long run relationship between them. It argues that Investment reduces poverty, but reduces employment opportunities, which increases in turn sustains the terrorist conditions.

Causal Relationships

Granger Causality Tests have shown that the relationship among investment and poverty is a one-way type: whose condition is higher investment leads to is thorough reduction of poverty. The relationships with terrorism differ in that terrorism leads to poverty and that same poverty increases the chances of terrorism, which creates a vicious cycle.

The analysis identified cyclical interactions in the same way as Goldstein (2005), who supported the theory stating that the combination of high unemployment with considerable income inequality significantly raised the risk of terrorism.

Conclusion

The purpose of this study was to verify a hypothesis that terrorism, insecurity, and poverty sustained a triangular relationship. This hypothesis came to fruition. The economy suffers severely due to the form of investment and growth terrorism causes. The increase in spending leads to an increase in poverty stricken areas, which strengthens the causes of terrorism. The terrorism and poverty link perpetrate a vicious cycle leaving Pakistan economically handicapped while losing more and more citizens to poverty and under development.

Between the years 1980 to 2010, there was a distinct and positive link between terrorism and poverty that was noted by the study. The indicators of Gross Capital Formation (GCF), domestic investment, and even Foreign Direct Investment (FDI) seemed to negatively correlate with poverty. This implies that issues of transitional security, mostly terrorism, had significant and drastic impacts on investment for the worse. This paradox highlights the importance of immediate and efficient government action accepting the aid of the global community to sever the persistent link between fear, violence, and poverty.

Pakistan is presented with negative consequences on both foreign domestic investments due to the major cause of transitional insecurity, terrorism. The rising level of poverty caused by unemployment and economic stagnation is strongly associated with the proliferation of terrorism. A growing sense deprivation and aggression within the marginalized population has resulted in more and more terrorist acts being committed. To ensure effective long term economic growth and stability, breaking this cycle is of utmost importance.

Investments tend to decrease because of the sense of insecurity caused by terrorism, causing unemployment to skyrocket which in turn causes more terrorism. This vicious cycle of poverty generates more and more anger which is easily exploited by terrorist groups. The use of specially tailored strategies targeting the problem triangle of terrorism, poverty, and insecurity is necessary.

Action should be taken the build up to this goal: These measures include making primary education more accessible and creating more educational institutions so that youth stands a better chance at attaining sustainable employment. After all, better education does tend to lessen poverty long term and reduce the chances of extremist violence.

Job Opportunities In The Affected Regions: To lessen the impacts of terrorism, policymakers should focus on job development in regions prone to attack. Offering employment in these places helps to combat the unwillingness to work and provides alternative means of earning income, thereby reducing the chances of being radicalized.

Improving International Standing: There is a need for governmental action geared towards improving the perception of Pakistan from out of the nation, for the sake of regaining

confidence amongst investors. This may also include branding the country more after the advancement of diplomatic relations as well as the enhancing of security with basic funds. Foreign investment is important for generating employment opportunities and increasing the economy of the country.

The Incorporation of Economic Zones: In order to increase economic activities in these regions afflicted by terrorism and prone to terrorist attacks, policymakers can create free tax economic zones that are open for investments from both locals and foreigners, aiding in the rejuvenation of the area's economy.

The Fight Against Corruption: For progress in Pakistan to be achieved over a long period of time, it is crucial to put restrictions on terrorism, foster good governance, and fight corruption with vigilant transparency. For ensuring a stable investment conducive environment, rationally planning and efficiently executing for increased law and order particularly in reducing terroristic acts is crucial.

The course of action mentioned above stems in beating the repetitive sequence of terrorism and insecurities by promoting a positive impression for better investments and increased job opportunities, which ultimately reduced poverty.

Future Implications

The interplay between terrorism, insecurity, and poverty in Pakistan offers critical perspectives, but additional studies can vastly improve this understanding which includes:

Rural-Urban Divide: The relationship between terrorism and poverty is multifaceted and warrants more attention, particularly at a rural versus urban level. Having specific metrics for various regions makes tackling specific problems and enhancing opportunities feasible.

Cross Nations Study: Studying countries with disparate socio economic conditions can reveal useful insights on the effect of terrorism on poverty and investments. Utilizing panel data from various nations can deepen the understanding of the relationship between gross domestic product growth, terrorism, and poverty.

Poverty Headcount Ratio: More granular level dissection of the poverty due to terrorism can be accomplished through the aid of a headcount poverty measure. It enables a focused approach on how terrorism affects poorer demographics.

Research Done on Geographical Segments: Research case studies of particular geographic areas such as Northern Pakistan, Southern Punjab, and any other terrorism afflicted region can provide a thorough understanding regarding terrorism's micro effects. These case studies may assist in formulating specific region centered policies regarding terrorism and poverty alleviation.

Addressing those gaps can help researchers understand how deeply investment-oriented terrorism and poverty are intertwined, allowing them to craft informed policies that effectively deal with those issues.

References

- Abadie, A. (2004). Poverty, political freedom, and the roots of terrorism. *American Economic Review*, 96(2), 50-56.
- Abadie, A. (2020). *Terrorism and the economics of development*. Cambridge University Press.
- Alberto, A., & Gardeazabal, J. (2007). Terrorism and the world economy. *DFAEII Working Papers*, University of the Basque Country Department of Foundations of Economic Analysis II.
- Andrew, C., & Siems, T. (2004). The effects of terrorism on global capital markets. *European Journal of Political Economy, Elsevier*.

- Blomberg, B., & Mody, A. (2005). How severely does violence deter international investment? Claremont Institute for Economic Policy Studies, 01.
- Enders, W., & Hoover, G. (2003). The effect of robust growth on poverty: A nonlinear analysis. Applied Economics, 35(9), 1063-1071.
- Elbakidze, L., & Yanhong, J. (2007). Socio-economic antecedents of transnational terrorism: Exploring the correlation. National Center for Foreign Animal and Zoonotic Disease Defense, Texas A&M University.
- Frey, B., Luechinger, S., & Stutzer, A. (2007). Calculating tragedy: Assessing the costs of terrorism. Journal of Economic Surveys, 21(1), 1-24.
- Gurr, T. R. (1971). Why men rebel. Princeton University Press.
- Goldstein, K. B. (2005). Unemployment, inequality, and terrorism: Another look at the relationship between economics and terrorism. *Undergraduate Economic Review*, 1(1), 1-15.
- Mahmoud, A. (2008). FDI, local financial markets, employment, and poverty alleviation. MPRA Paper 29717, University Library of Munich, Germany.
- Piazza, J. (2006). Rooted in poverty?: Terrorism, poor economic development, and social cleavages. Terrorism and Political Violence, 18, 159–177.
- Richardson, C. (2011). Relative deprivation theory in terrorism: A study of higher education and unemployment as predictors of terrorism. Senior Honors Thesis, New York University.
- Sandler, T., & Enders, W. (2004). An economic perspective on transnational terrorism. European Journal of Political Economy, Elsevier, 20(2), 301-316.
- Subhayu, B., Sandler, T., & Younas, J. (2009). Foreign aid as counterterrorism policy. Working Papers 021, Federal Reserve Bank of St. Louis.
- TTSRL. (2008). The negative economic impact of terrorism and means of consequence minimization. Transnational Terrorism, Security and Rule of Law, Issue 9.
- Waheed, A., & Ahmad, M. M. (2011). Assessing the economic impacts of terrorism on informal day laborers sector in Lahore, Pakistan. International Journal of Academic Research, 3(3), 383-387.
- Williams, R. (2021). The emergence of poverty in conflict regions: A decline in political and social conditions. Journal of Economic Development, 14(2), 98-115.