

**VIOLENCE AND BUSINESS ACTIVITIES; AN EVIDENCE FROM
KHYBER PAKHTUNKHWA**



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CERTIFICATE

This is to certify that this thesis entitled: “**Violence and business activities: Evidence from Khyber Pakhtunkhwa**” submitted by Mr. Waqar Ahmad is accepted in its present form by the Department of Business Studies, Pakistan Institute of Development Economics (PIDE), Islamabad as satisfying the requirements for partial fulfillment of the degree of **Master of Philosophy in Business Economics**.

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*Dedicated to
My Beloved Parents and
Teachers*

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List of Acronyms

CRSS	Center of Research and Security Studies
VECM	Vector error correction method
VAR	Value at risk
GCF	Gross Capital Formation
KP	Khyber Pakhtunkhwa
GDP	Gross Domestic Product
GTD	Global Terrorism Databases
DID	Difference in Difference
PLM	Probability Linear Model
OLS	Ordinary Least square
FDI	Foreign Direct Investment
PPP	Purchasing Power Parity
SEZ	Special Economic Zones
WB	World Bank
WDI	World Development Indicators
WGI	World Governance Indicators

Abstract

This study attempts to investigate the effect of violence surge on business activities in Khyber Pakhtunkhwa (KP). This impact has been investigated in district Peshawar which witnessed episodes of violent shocks since the last decade with a comparison group district Swabi. The data regarding the investment behavior, perceived security/insecurity level, victimization and other control set of covariates (firm specific characteristics and personal characteristics) are collected through the questionnaire in both the districts. We applied the linear probability model because my dependent variable is 0 and 1, and found that violent shocks have adversely affected the investment behavior of investors in district Peshawar compared to the reference region, district Swabi. Additionally, to assess the possible sources of channel of the affect, the study examined the effect of violence surge on perceived insecurity and the level of victimization among the investors. We perceived that violent shocks increased the level of perceived insecurity and personal victimization, which hindrance the additional investment activities in the region.

Chapter 1

INTRODUCTION

1.1 Background of the Study

Business activities include any activity engaged in the primary purpose of making a profit. This is a general term that encompasses all the economic activities carried out by a company during the course of business. Business activities, including investment, operation, and financial activities, are ongoing and focused on creating value for shareholders (Green & Tita, 2004).

Operating activities are the functions of a business directly related to providing its goods and/or services to the market. These are the company's core business activities, such as manufacturing, distributing, marketing, and selling a product or service. Operating activities will generally provide the majority of a company's cash flows and largely determine whether it is profitable (Czinkota et al., 2010). Some common operating activities include cash receipts from goods sold, payments to employees, taxes, and payments to suppliers. These activities can be found on a company's financial statements, and in particular the income statement and cash flow statement.

Operating activities are distinguished from investing or financing activities, which are functions of a company not directly related to the provision of goods and services. Instead, financing and investing activities help the company function optimally over the longer term. This means that the issuance of stock or bonds by a company is not counted as operating activities (Knight et al., 2009).

Violence is the intentional use of physical force or power threatened or actual, against oneself, another person, or against a group or community, specifically business which either high likelihood of resulting in injury, death, psychological harm, threats, burglaries, or deprivation is called violence while terrorism is the unlawful use of force against persons or property to intimidate a government, the civilian population or any segment thereof, in furtherance of any political or social objectives (Miessler, 2017).

Pakistan is a country where different types of violence continue to be a reality. All the way from Karachi to Khyber Pakhtunkhwa, the map tells the story of a country affected by violence and conflict hotspots, making it a rather wounded picture. These conflicts have as much diversity between them as the people of the society they surround. Pakistan has been victim to various forms of violence including ethnic, sectarian, political and civil insurgent. After 9/11, violence took a new turn as Pakistan declared itself an ally for the war on terror. Since then terrorism by the non-state actors has become a leading form of violence in Pakistan.

Although Pakistan has experienced violence, instability and administrative conflict for most of its existence since the independence, the tragic events of September 11, 2001 have expanded it to a much serious crisis¹. The aftershocks of September, 2001 attacks has deteriorated the social and economic activities of individual on a broader level in which mostly the common businessmen have been seriously affected, and FDI decreased resulting in totally diminishing their unit productivity or extremely decrease in their production capacity. Due to rough estimates Pakistan has wounded and beards a huge loss of \$45bn from 2001 until 2009.² Among other part of the world, especially in Pakistan the situation was worsened with its internal

¹ The cost of conflict in Pakistan Center for research and security studies Humanitarian Library 2007.

² The cost of conflict in Pakistan (Economic cost) P 7 CRSS 2007.

security issues, violence activities, threatening the whole community, damaging industrial zones and discouraging investors from investments. The violence has also highly affected economic and business activities of Khyber Pakhtunkhwa, tourism, and societal gains, which have been witnessed in the form of devastation of infrastructure and labor force participation.

The environment of fear and violence harshly upsets the human activities and choice of individuals belonging to every demesne of life. These decision makings have perpetual effects for the economy, specifically the decision relating to consumption and production/investors. The business sector of Pakistan has been punched by violence and severely causes the downfall of production and investor investment. The evolution of the 21st century was not as charming as the promise of development and prosperity had given hope that the inequality, poverty, underdevelopment and bad governance, conflict and different types of violence remain marked Baum et al 2004.

The violence besides posing a threat to regional and global security has multiple human dimensions as well. The Insistent violence like lethal, homicides, threats, vandalism and kidnapping has trapped some countries in a venomous cycle of economic instability. The violence in this country has reduced investment, reserved entrepreneurship and has formed rent seeking prospects. The situation is exploited by the culprits of violence to create further instability. Hence the conflict and security analysis has become an essential part of any serious policy formulation. Any serious policy formulation need to resolve the conflict and security issues which promote the prosperity of business and entrepreneurships in the region which is highly recommended.

The link between business and economy is correlated in term of prosperity and social capital which is an asset of a country`s economy. Unemployment rises with highly conflict zones and people tend to shift their business activities to safest places, which is a disadvantage for society in term of monetary and business activities (Bates et al., 2008). Moreover, violence create direct losses in the form of human lives and indirectly it affects productivity level of a specific area, like the higher the conflict the lower will be the investment and vice versa.

Wilhemson (2011) probed that Better and healthy economic growth of a country can better off people living patterns, health and educational mobility and more investors are encouraged to invest and produce a high level of unit. If a country is well-off in terms of economy, business activities, low imports and higher exports, its people enjoy a prosperous life, more and more people become part of social activities and Economy of a country become stable.

Among other part of Pakistan, the Khyber Pakhtunkhwa (KP) province was severely affected and the quality of living and business environment got disturbed due to the violent activities created by the insurgents. Many studies have been conducted to explore the effect of violence but the KP province is yet to be explored. With an aim to examine the effects of violence on business activities/Environment, which has not been overlooked, can help us understand the root causes of those which has affected business activities in KP and to develop strategies which can effectively prevent business activities from violence³.

It`s been observed that socioeconomic alignment such as crime and violence serves as an important composition for business and residential communities which affects livelihood, most researchers have focused their attention on fear of crime and violence but very few studies have

³ The cost of conflict in Pakistan (Economic cost) P 7 CRSS 2007.

tried to analyze the effect of violence on business activities. Violence and fear certainly affect business environment as it forces significant number of employees to move out looking for a safer place. Business operations are affected through burglary, threats, vandalism, kidnapping, lethal violence, homicide and delinquency in Khyber Pakhtunkuwa.

The primary goal of this research will be to find the impacts of violence surges on neighborhood business activities in Khyber Pakhtunkuwa. Our target population will be two different sectors of economy, Peshawar industrial area and Swabi industrial area. The former being highly affected by violence and the latter affected slightly.

1.2 Problem Statement

The literature shows that there is a need to examine in depth the economic cost of violence and the effect on investor behavior in Pakistan. The issue is highly important as Pakistan is among the highest victim of violence from the last two decades and is highly suffered from the economic, social, and political losses. The study aimed to accomplish the task of quantifying the impact of violence on investment behavior with the help of primary data of two regions i-e Peshawar and Swabi industrial area to explore the appropriate economic cost of violence in Pakistan.

1.3 Research Objective

The study is based on the following specific objective;

To examine the effect of violent shock's on the investment behavior of investor in district Peshawar.

1.4 Hypothesis

H_0 = violence has no impact on the investment of investor behavior in district Peshawar.

H_1 = violence has impact on the investment of investor behavior in district Peshawar.

1.5 Significance of the study

The significance of the study is to find the impact of violence surges on business activities and how violence is affecting the business stakeholders and due to violence how much decrease occurs in unit production and investments in a specific area. From the literature review it is evident that violence extremely affects business and discourages production capacity of any firm, however no evidence is available in case of KP where a huge segment of population was affected and business firm were severely affected in the metropolitan cities. To narrow down the gap and to find the causal relationship of violence and business, the study will focus on these areas. Moreover, this study will also help in identifying potential areas for future research related to conflict and economic activities.

Chapter 2

Literature Review.

It is generally believed that outbreak of the violence adversely affect the economic bustles by creating uncertainty among the economic agents in the society. An enormous theoretical and empirical work is carried out to explore business consequences of the violence shocks, both on the micro and macro level in various regions of the world. This section presents overview of some of the past studies, and offer insight into the economic cost associated with violence in the society.

2.1 Economic Cost of Violence

Baum and Tita (2004) investigated the impact of violence surge on the creation, destruction and growth of business establishments in five US large cities between 1987 and 1994. The authors collected homicides data from National Consortium of Violence Research (NCOVR) and police reports. While the business data is collected from the economic studies at the US Census bureau, over the period of 1982-96. The author employed Propensity Score Matching and Difference-In-Difference techniques. They found that the impact of violence surge severely affect the personal services and retail businesses which more directly involve in business dealing.

Similarly, in another study Baum et al. (2006) perceived that fear of violence potentially cause consumers, employees and entrepreneurs' behavior to change their routine activities from areas that experience a surge in violent activity. The authors collected data from five US large cities i-e Columbus, Ohio, San Francisco, a Midwestern cities with a population of approximately 711,000 over the period of 1980 to 1990. They estimates the hedonic price modeling to confirmed that crime is capitalized into local housing markets, however, crime is

capitalized at different rates for poor, middle class and wealthy neighborhoods and that violent crime imparts the greatest cost.

Fisher (1991) investigates the impact of violence on neighborhood business activities in Ohio. The author collected data through field Survey from 102 respondents. Through exploratory analysis of the data the author observed that violence and crimes have negative impact on community business cycle and residential choice.

Rosenthal and Ross (2010) investigated the impact of violent crime, entrepreneurship of five US large cities. The authors collected cross sectional data in different years (2003-2008) for five different states of the USA. The authors used tobit regression model and find that retail, wholesale, high- and low-end eateries are all more active in areas with higher local rates of violent crime. The author observed that among eateries, an surge in violent crime during the dinner hours corresponding to the sample max/min range would decrease the high-end share of local restaurants by roughly forty percent. These findings indicate that entrepreneurs take violent crime into account when bidding for locations within a city. It also indicates that efforts to make distressed portions of cities more vibrant must give consideration to the need to ensure that such areas are safe.

Mehmood (2014) probed the macro economic consequences of terrorism in Pakistan. The author collected terrorism data from 2001-2011 from GIS map post 9/11. The author implemented VAR analysis, granger causality test and vector error correction method (VECM) The author has highlighted the economic impact of terrorism on major macroeconomic Variables. It is documented that cumulatively terrorism has cost Pakistan around 33.02% of its real national income which is equivalent to approximately a loss of 1% of real GDP Per capita every year when there is increase occur 10% in terrorism.

Ballair and macnulty et al (2003) the author linking the local labor market opportunity to violent adolescent delinquency. The authors collected data between the ages of 11 and 20 and are drawn from the restricted-use sample of the National Longitudinal Study of Adolescent Health (Add Health), waves 1 and 2, 1994 to 1996, a sample of 134 schools. Two waves interviews from 27000 respondents. The author used logistic model and revealed that significant and expected negative effects of living with both biological parents on violent behavior. The low-wage service sector effect actually increases, although insignificantly, with the introduction of family well-being. It also revealed that the impact of low-wage service sector concentration decreases by about 5.5 percent when adolescent achievement is entered and 3.5 percent when school attachment is entered. The scholar have claims that understanding how businesses respond to violence if violence increases than the investors will decrease investment in an area they suffered and vice versa, and the study has important implications for understanding community crime series and offers further evidence of how crime impacts the choices individuals make with regards to where they live, shop and work .

Levi (2001) investigated masses response to crimes shocks in London and Scotland business malls. The author collected data from Business Resource Consortium (BRC) and Scottish Business crime Survey (SBCS) and observed that cybercrime, fraud and security threats to employees' negatively affected businesses in the region. He further explained that because of high burglary risks, no one would open businesses in an areas where the crime rate is high, thus reducing both employment and local shopping opportunities.

Shihadeh and ousy (1998) find the direct and indirect effects of homicide on industrial restructuring in urban areas. The authors collected primary data across 100 US cities from 1970-1990 of total 100,000 people including 5000 black and the remaining white, and implemented

central limit theorem. The findings reveal that a decline in the low level jobs leads to increase in violence specifically; these descriptive findings portray black life in major cities as objectively harsh in comparison with that of whites. Specifically, as the proportion of low skill jobs decreases, so does the economic status of the local population, In turn, economic deprivation raises the rates of violence.

Retberg and Nasi et al (2012) explored the business and conflict in a war-torn country such as Colombia, entrepreneurs should be particularly careful regarding the linkages between business and conflict. The data is taken from conflict zones of Columbia from 1970-2010 of five natural resources i-e Oil, Emeralds, Coffee, Flowers, and Bananas. The study is descriptive in nature. They suggest that Industrialists who strictly follow to the principles of CSR and help to build peace at the local level than might be better able to shield their business from the negative effects of violence than those who simply accept the formal and Informal rules.

Cramer (2010) examine that the unemployment is the major cause of violence. The author used cross sectional data and data collected from different countries of Africa, Asia, and USA states majorly, the study is explanatory in nature which explored that youth bulge increasing day by day with zero minimum employment rate tend to increase violence in the society.

Paternoster and Bush way (2001) investigated that unemployment is hazardous for society which is the main root cause of violence in the region. The auto theft data (1946-83) and arrest data (1933-91) is taken from US business department for the period of 1933 to 1991. The author implemented VAR methodology to find the relationship between unemployment and

crime. The objective is whether there is a positive relationship or negative relationship between unemployment and employment rate.

Kitchen and Williams (2010) explored that the two cities of Canada i.e. Saskatoon, Saskatchewan has the highest crime ratio. The data is taken from police records, neighborhood telephone survey, and residents interviewed, and the time series data is used for the period of 2001-2007, and applied logistic regression, and thematic content analysis, to find that how these crime impact the livelihood and QOL in the area, and how it impact the business because businesses were highly affected through violence in the region i.e. lethal, burglary, theft, vandalism. The analysis present a mixed picture of the fear of crime and QOL, it revealed that the relationship between fear and crime has in significant.

Kingwa and Hurst et al (2011) investigated that after a world war 2 the industrial sector, particularly the poor class has been highly affected; the crime rate has slightly increased from 1974-1995, and slowly decreased in the mid-nineties. The homicide, bicycle theft, robbery, burglary data has collected for the period 1974-1995. According to the global theft barometer the author surveyed that Hong Kong and China has lost 295 million dollars of the total retail sale globally. The author descriptively studied that Hong Kong and China are relatively low violence compared with many industrialized and developing countries.

Ceccato and Welhelmsson (2011) explored that the property prices and value has negatively affected in Stockholm Sweden. The cross-sectional data is used and collected from January 2008 to December 2008. The authors implemented hedonic regression and OLS estimation to find that the relationship between apartment prices and measures of crime. Researchers have long suggested that high crime levels make communities decline in Stockholm

Sweden. This is because buyers are willing to pay more for living in neighborhood with lower crime rate alternatively the demand for properties increases in safer area.

Baum and LA free (2006) explored the impact of violence and unemployment on business activities in Italy. The authors collected business data of 95 provinces and 329 incidents from 1981-1997 from the business observatory and Picketon global intelligence PGIS, and implemented the OLS regression to find the affected provinces are less likely to attract new businesses to their area, suggesting that entrepreneurs are instead Locating in safer unaffected provinces. The new business births has negatively affected due to increased homicide violence in the region.

The author argued that the violence had a direct mental effect on the general population of Pakistan (Peshawar) specifically the local businesses (investors) and the consumers living in the dispute zone. Their consistent introduction to violence has provoked numerous mental issues, now and again as genuine psychological sickness to human lives⁴.

Cullen and Levitt (1999) investigate that the crime and urban flights in the cities has negatively impacts the business activities, financial reproduction, firms and investors inside neighborhoods. The panel data is collected from Federal Bureau of Investigation's uniform crime report from the time period 1975-1993 of 81 cities including 400,000 households. The authors implemented the OLS regression to find almost all of the impact of crime on decreasing city population is due to increased out-migration rather than a decrease in new arrivals. Households with high levels of education or with children present are most responsive to changes in crime rates.

⁴ The cost of conflict in Pakistan (Human Cost) Center for research and security studies Humanitarian Library 2007.

The money related trouble to society from professional offenses is most likely more prominent than the monetary trouble from robberies, burglaries, homicides, vandalism, homicides, lethal violence, threats and robberies perpetrated by people of the lower financial class budgetary misfortunes from desk violations, and other burglary exercises in any case, are the minimum imperative of their results. Normal crimes make some burden the casualties and periodically, in harsh occurrences of real assault or when repeated with hardly a pause in between, cause a general group unsettling influences and organizations of a general public which prompt demolition of business (Robert T. Green Baum et al; 2006).

Different studies have been conducted that businesses negatively respond to violent activities, it affects the individual choices with regard to where they live, shop, because due to longitudinal business data the crime mostly impact the local business creation and survival in the violent area (Robert T. Greenbaum George E. Tita, 2004).

The survey suggest that the existing business carefully assess the changes in crime when deciding to move or close the business activities in affected area, it is impossible to assume that the businesses were closed down due to increase in crime in the specific area where the growth rate affected by different type of violence's i-e lethal violence, homicides, vandalism, threats, burglaries, these violence's can affect the gross flows in terms of jobs destructions (George E. Tita et al; 2004).

The author investigated that despite its financial achievement and 'safe city' status, Hong Kong has encountered a few wrongdoing waves and real emergencies in the past 50 years. Industrialization after World War II created social issues quite, a class of urban poor, disturbed by the unending wave of transients. Long-held against pioneer sentiments furthermore, social

discontent prompted revolts in 1966 and 1967, to which the Government reacted by actualizing social changes directing working conditions and subsidizing open space to suit the merging of vagrants from territory China. It is hard to know the degree of crimes against a business since official crime statistics measurements ordinarily don't report the characteristics of victims. For instance, police record the number of fakes answered to them, yet the financial sum of the extortion and insights about culprits and casualties are infrequently accessed. Since extortion can be performed by organizations against customers or different organizations, or then again by providers, customers and different people against organizations, official insights are lacking to think about the extortion exploitation of business activities (Roderick Broad Hurst et al; 2011).

The author argued that, crime impact on the existence of local businesses because crime occurs in the area the business closed down and wholesale firms are profoundly overrepresented in the category of small businesses which mostly affected by crime. Conventional wisdom suggests that business movement in urban groups is demoralized when abnormal amounts of crime prevail, People who try to build up new business tend to remain away, and the danger of disappointment is apparently uplifted, while the conceivable level of progress is brought down. However, our inquiry of the literature recommends that no strong exact connection has been set up, to date, between crime levels and the suitability of small businesses (Timothy Bates et al 2008).

Pakistan business sector has severely affected by violence since the last two decades and the author emphasized that the economic impact of terrorism on major macroeconomic Variables, is acknowledged that cumulatively terrorism has cost Pakistan around 33.02% of its real national income which is equivalent to approximately a loss of 1% of real GDP Per capita every year when there is increase occur 10% in terrorism/violence Hence, violence is making the

economy of Pakistan ceaselessly stay beneath its potential level of income. Pakistan needs quick end to this war if this cannot materialize than will damage the import and export sectors (FDI) it needs a major overhauling of its exporting sector and take steps to inspire domestic investments and worker settlements. Alternatively, from an academic perspective, the study has brought new empirical possibilities to light, otherwise clouded by aggregation of countries. For example, terrorism can negatively affect employee remittances and government spending (sultan Mahmood 2014).

The author have concluded that the fear of crime and political and social responses to crime revolve around a community is negative, hence violence increases than fear increases and business activities will affect in the area. Crime more generally the victim of crime in region where killing rate, burglary, lethal violence, cybercrime, fraud and abuse exists than the business effect mostly and sometimes there is no monetary cause for a violence but to damage the business or property is the main cause to business in the specific area (Michael Levi 2001).

The author demonstrates that due to fear of violence the income and expenditures of people or region decreases with much higher rate. The crime and more generally the victim of crime reduce the business activities in specific area which lead to decrease business activities (Robert T green Baum 2004).

The author studied that the violence increases due to poverty in the region, the post conflict studies predicts that the private sector is indeed the one that can increases the jobs reconstruction in a formal way and reducing the poverty and crimes in a region which is important for a community and business (Kwabena Gyimah-Brempong 2012)

Different studies predicts that the business carefully assess the changes in violence and crime when deciding to transfer or shutdown the business activities in affected area, the studies assumes that the businesses were closed down due to increase in crime in the specific area where the growth rate affected by different type of violence's in the region i-e lethal violence, homicides, vandalism, threats, burglaries, these violence's can affect the gross flows in terms of jobs destructions (George E. Tita et al; 2004).

The author investigated that the unemployment is harmful for society which is the main root cause of violence and criminal activities in the area or region. The car/logistic theft data (1990-99) and arrest data (1990-99) is taken from US business department for the period of 1999 to 1999. The author implemented VAR methodology to find the relationship between unemployment and crime. The objective is whether there is a positive relationship or negative relationship between unemployment and employment rate (Paternoster and Bush way (2001).

The economic stability and prosperity is depend upon the situation where there is a peaceful environment for business activities and there is no harm to business than the economic growth will flourish and ultimately result in economic stability and economic prosperity (Kwabena Gyimah-Brempong 2012).

Due to increase occurred in illegal arms/weapons than the average attack is increased by 95% in the city of Cote d'Ivoire, which may affects the dynamics of public/private sector either by decreasing the foreign direct investment due to higher country risk and decreased the consumption pattern of consumer and investors which leads to decrease occurred in the business activities, the police protection decreased, the criminal activities increased than the business activities has been highly affected in Cote d'Ivoire (Kwabena Gyimah-Brempong 2012).

From police occurrence data and news media reports, the author demonstrates that the armed criminals and fear based oppressors that aggravate Kogi (Nigeria) state don't target private houses or schools or clinics, rather they particularly target business premises, motels inns, petroleum stations and vehicles suspected to convey to dealers. Likewise, the banks that help organizations and businesses in the region are similarly under assault (Emmanuel Okokondem Okon 2016).

In spite of the worse fact that the issue of Boko Haram fear and mongering the business sector has been more considerable in the North East of Nigeria and in states like Kano and Kaduna, nonetheless, the revelation of a few psychological militant enclaves, particularly IED/bomb making "processing plants" in Okeene territory of Kogi state in mid-2012 led to arrangement of conflicts between security offices and the fear based violent groups. These conflicts and fear of further fear based autocrat action have effectively affected organizations in Okeene which is a vital business town in Kogi state. Most noticeably awful hit is the cordiality and administration organizations and businesses in the town. Today, numerous eateries, lodgings, general stores, petroleum stations are considering their misfortunes a consequence of the absence of support while some of them have totally shut down Emanuel Okokondem okon 2016 .

Chapter 3

THEORITICAL FRAMEWORK

3.1 THEORITICAL BACKGROUND

This section briefly explains the theoretical background concerning the economic consequences of violence and terrorism in Khyber Pakhtunkhwa. Through various channels many economic theorists conceived different background or framework to explain the violence effects on the investment behavior of investor and find the economic growth of a state.

Paul Collier (1999) analyzed those fatalities due to terrorism and violence lead to decrease in human capital. Similarly, private and public property is also affected by terrorism and violence in shape of infrastructure destruction. The social disorder comes in the society through burglary, vandalism, homicides and other immoral activities due to which the expenditures also increases in terms of security clearance to investor as argued by Paul Collier (1999).

Keynesian theory explain terrorism in a country is also expected to adversely affected on business activities if violence increases, then investment in a country decreases leading to new security patterns in order to maintain the business cycle.

The atmosphere of fear and violence i.e. homicides, vandalism, kidnapping, burglaries, pretended by extremist or terrorist rapidly worsen the business activities and thus reduces the investment in the economy. Moreover it also eliminates the peace and security in a country which directly affects the foreign direct investments (FDI) due to terrorist attacks in the region (Czinkota et al, 2010).

In Pakistan various sectors of the economy has been depressed and rolled back the harmony dividend associated with peace due to increase in armed expenditures in the state (Fielding, 2003).

These exercises were directed through the performance of political instability and turmoil in the society. Eckstein and Tsiddon, (2004) argued that terrorism mainly affects the aggregate economy, through which the military expenditures increases and mainly financed by tax revenues as government puts up security expenditures in a country. The utilization of military spending in some yield creating an activity (generation of security-related items) will counterbalance the negative impact but unable to exile it completely. violence reduces the future life value relative to present which leads to dissaving in investment and monetary falls that restrict the consumption and profits boom eventually.

Mirza and Verdier, (2007) Devised a theoretical background to discover the global terrorism effects on international trade and determined the mutual trade has adversely affected due to transnational terrorism in a countries.

Frey et al, (2007) proposes a theoretical framework rely on the life satisfaction approach to assess the impact of violence and conflict in Northern Ireland. They confirmed that individuals who are highly exposed to violent conflict faced reduction in their life satisfaction and sacrificed a higher portion of their utility.

Chapter 4

METHODOLOGY

Since the purpose of this study is to investigate the consequences of violent conflict on business activities in Khyber Pakhtunkhwa (KP). This chapter outlines the structure through which we have examined the response of business activities (in terms of investment behavior) to the happening of violent shocks. In this chapter in the first section we discuss about the appropriate locality, which is to be used as a reference category to assess the investment behavior of investors in KP to any violent conflict shock. In the second part we extend our discussion to the sampling technique and sample size, in the last section of this chapter we discuss about the model and appropriate econometric methodology to probe the causal impact.

4.1 Locality

After indulging into the war against the terror, Pakistan faced episodes of violent shocks. Majority of these shocks are perceived in large cities of the country which are considered the business hubs, in terms of suicides attacks, target killing, vandalism, burglaries, kidnapping and ransom. Among others, because of strategic location, the Peshawar city witnessed intense waves of violent conflicts in the current and last decade, which affected different dimension of social, political and economic life. In this study we probed that how the occurrence of violent conflicts influence the investment behavior of investors in Peshawar region. Nevertheless, to achieve more sensible estimates, we must have to establish a comparison group. We will use the district Swabi as a comparison group, which off course makes sense. The Gadoon region in the district Swabi is a known industrial estate, where: (a) the operational industries structure is alike to the industries working in Peshawar, and (b) the Gadoon region never experienced direct violence shocks.

These two characteristics not only allow us to identify the Gadoon industrial estate as an appropriate comparison group but also to establish more reliable causal impact.

4.2 Sampling Technique and the Sample Size

In this study we collected data from different industries in both districts. These industries include marble, pharmaceuticals, match sticks, chemicals, furniture, chipboards, Food industries, beverages, fiber industry, herbal medicines, plastic and PVC industry, ceramics, woolen mills, textile, paper sacks/ paper cone, ghee and oil mills, soap, Foam, Brick kilns and Carpets. In district Peshawar 272 industries are operational, while in district Swabi 98 industries are working. We have followed random sampling approach. In order to ensure the randomization, we have list all the industries on both sides of the districts, and then randomly select the desired sample size. Since the actual population sizes are known to us, thus using 95% confidence interval and 5% confidence level, we have collected data from 137 and 78 industries from Peshawar and Swabi respectively. A questionnaire has been constructed for the collection of the data.

4.3 Model and Econometric Methodology

In order to estimate the effect of violence on investment behavior, the following equation will be estimated;

$$IB_{id} = \beta_0 + \beta_1 \text{ violence } d + \gamma X_{id} + \theta S_{id} + \varepsilon_{id} \dots \dots \dots (1)$$

In above equation 1, IB_{id} is the investment decision of the firms. violence d is dummy variable which takes the value 1 for the industries located in district Peshawar and 0 otherwise. This variable captures the treatment effect in the form of violence. The β_1 is our parameter of

interest which predict the intensity of violence shocks on the investment behavior. X is the vector, which include personal characteristics of the employers like education, experience and age. Similarly, S include the industry characteristics, which are comprise of size, age, employment level and etc. In order to estimate the above equation (1), we have employed Ordinary Least Square (OLS) technique. However, our data is cross section nature, thus it is quite possible that we have the problem of heteroskedasticity, which could influence the standard error and so the significance level. Hence, to avoid this issue we will use Huber-White robust standard error to avoid the consequences of heteroskedasticity.

Although, in the aforementioned discussion we assign the regional dummy and try to capture the effect of violent shocks on investment behavior of investors. However, one might question the validity of our estimates; whether the effect actually comes from violent shocks or there is some other source which affect the investment behavior. In order to validate our finding and explore the channel, we will estimate the following equation. In this equation, the dependent variable will be the loss faced by the investors in Peshawar in the form of lives loss or injuries, physical or financial loss and the intensity of feeling secure or insecure.

$$Y_{id} = \beta_0 + \beta_1 \text{ violence} + \gamma X_{id} + \theta S_{id} \dots\dots\dots (2)$$

Similar to the equation (1) *violence d* is dummy variable which takes the value 1 for the industrialist living in district Peshawar and 0 otherwise. This variable captures the effect of various form of loss faced by the employers in district Peshawar. The β_1 is our parameter of interest which predict the intensity of loss, faced by the industrialist living in district Peshawar. The remaining variables remain the same in vectors X and S in equation (2) as that of equation (1). Equation (2) will provide information about the various form of loss, faced by the

industrialist living in district Peshawar. Lastly, to inquire the links between violence and investment, we regressed the investment on various form of loss faced by the investors. For this purpose we will estimate the following equation

$$IB_{id} = \beta_0 + \beta_1 L_{id} + \gamma x_{id} + \theta s_{id} \dots\dots\dots (3)$$

Here IB_{id} is the investment decision. L is the various form of loss faced by violence.

Chapter 5

RESULTS AND DISCUSSION

After discussing the sampling technique, data collection, model specification and methodology in the previous chapter; the present chapter presents the main finding of the study. Table 5.1 represents the descriptive statistics of the variables used in our analysis. Table 5.2 represents the effect of violent conflict and investment behavior of the investors. Table 5.3 depicts the violence and the perceived insecurity. Violence and victimization in a violent and non-violent area is shown in table 5.4. Table 5.5 represents the violence and investment behavior of the investor in district Peshawar and Swabi respectively. Lastly table 5.6 represents the violence and perceived insecurity in 2010 respectively.

5.1 DESCRIPTIVE STATISTICS

Table 5.1 represents the descriptive statistics of the variables used in the study, i.e., Age, education, experience, family size, firm age, size of the firm, profit, willingness to invest, effected directly or indirectly, intensity of security/feeling, willing to invest in 2010, safety in 2010 and violence. The mean of the age variable is 47.48 with a standard deviation of 10.97. The age series contains a maximum value of 80 years and minimum 24. Similarly the mean values of covariate education and experience are 12.23 and 18.61 with standard deviation values of 6.194 and 9.253 respectively. Whereas, the minimum values of both the variables are 0 and 18 and maximum values are 2 and 50 respectively. Further, the mean of the family size is 7.926 and the standard deviation is 2.796, while its minimum value 2 and maximum 15. Similarly the mean values of firm age and size of the firm is 17.07 and 228.8, with the values of standard deviation 7.320 and 795.9, and minimum value 2 and 1 and 15 and 44 respectively. The mean value of the

size of the firm and profit of the firm is 228.8 and 0.894, while the standard deviation is 795.9 and 0.324 and minimum and maximum values 9 and 0 and 8000 and 2 respectively. Among others, the descriptive statistics for willingness to invest and affected directly or indirectly carry the mean values of 0.491 0.458 and the standard deviation 0.501 0.499 respectively. For the mentioned series the minimum and maximum values are 0, 0 and 1, 1 respectively. The mean value for the intensity of security/feeling is 2.199 and the standard deviation is 1.022 while the minimum value 0 and maximum value is 4. Furthermore the descriptive statistics shows that the mean value for willingness to invest in 2010 is 0.324 and the standard deviation is 0.469 while the minimum and maximum values are 0 and 1. The mean value for safety (2010) variable shows 2.671 and the standard deviation for safety is 1.322, while minimum value shows 1 and maximum value shows 5 respectively.

Table 5.1: Descriptive Statistics

VARIABLES	N	Mean	SD	Min	Max
Age	216	47.48	10.97	24	80
Education	216	12.23	6.194	0	18
Experience	215	18.61	9.253	2	50
Family size	216	7.926	2.796	2	15
Firm age	216	17.07	7.320	1	44
Size of the firm	216	228.8	795.9	9	8,000
Profit	216	0.894	0.324	0	2
Willingness to Invest	216	0.491	0.501	0	1
Affected directly/indirectly	216	0.458	0.499	0	1
Intensity of security/feel	216	2.199	1.022	0	4
Willing to Invest in 2010	216	0.324	0.469	0	1
Safety 2010	216	2.671	1.322	1	5
Violence	216	0.638	0.481	0	1

5.2 VIOLENCE AND INVESTMENT BEHAVIOR

Table 5.2 depicts the effect of violence on investment behavior of investors in Peshawar in comparison with the investors in Swabi. In the first specification when we regressed additional investment decision on exposure to violence, we observed that in comparison to district Swabi, violence in Peshawar has negative but insignificant impact on the invest behavior of the investor in district Peshawar. Nevertheless, one might question the reliability of this finding as it ignore the personal and firms specific characteristics. Thus, in second specification we include the personal characteristics which include age, education, experience and family size of the firm owner. After controlling for the personal characteristics, we witnessed that violence experience in Peshawar has negative as well as significant impact on investment behaviors of investors in Peshawar with respect to the investment behavior of investor in Swabi.

Table 5.2: Violence and Investment Behavior

VARIABLES	Model 1	Model 2	Model 3
Violence	-0.115 (0.071)	-0.140* (0.083)	-0.144* (0.083)
Constant	0.564*** (0.056)	0.587 (0.701)	0.917 (0.723)
Observations	216	174	174
R-squared	0.012	0.042	0.080
Personal Characteristics	No	Yes	Yes
Firm Characteristics	No	No	Yes

Note: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors are reported in parentheses. Personal characteristics include age, education, experience and family size of the firm owner. Firm characteristics include age of the firm, number of employees, and profitability of the firm.

The coefficient associated with violence exposure in specification 2 predicts that in comparisons to Swabi, the investors in Peshawar are 14% less likely to make additional investment due to violence exposure. In the third specification we relax the inclusion of firm specific characteristics which include age of the firm, number of employees, and profitability of the firm. The incorporation of these variables possibly affects the magnitude and direction of the coefficient associated with exposure to violence. Interestingly, we observed that after controlling for the firm specific variables the magnitude of the coefficient associated with exposure to violence only changed, as it is now -0.144. To conclude, exposure to violence has significant negative impact on the behavior of investors in Peshawar as compared to Swabi.

5.3 VIOLENCE AND PERCIEVED INSECURITY

Table 5.3 shows the relationship between the violence and perceived insecurity. The reason for doing such analysis is to explore the source of effect, i.e., whether it is the exposure to violent conflict that reduced the investment in Peshawar or it is the result of some other factors. In Table 5.3, in all the specifications, we can observe that exposure to violence shocks has positive and significant impact on perceived insecurity. In specification 1, without the firm specific and personal characteristics, the coefficient associated with violence is positive and significant. In specification 1 the coefficient associated with violence is 0.633, which suggest that exposure to violence is likely to results in higher insecurity among the investors in Peshawar, indicating that violence remains a threatening factor for the security of investors. Similar findings are observed in specification 2 and 3 as well, even after controlling the personal characteristics in specification 2, and personal and firm specific characteristics in specification 3.

Table 3: Violence and Perceived Insecurity

VARIABLES	Model 1	Model 2	Model 3
Violence	0.633*** (0.135)	0.554*** (0.159)	0.545*** (0.152)
Constant	1.795*** (0.104)	0.214 (1.098)	1.108 (1.145)
Observations	216	174	174
R-squared	0.089	0.087	0.142
Personal Characteristics	No	Yes	Yes
Firm Characteristics	No	No	Yes

Note: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors are reported in parentheses. Personal characteristics include age, education, experience and family size of the firm owner. Firm characteristics include age of the firm, number of employees, and profitability of the firm.

5.4 VIOLENCE AND VICTIMIZATION

Table 5.4 display the association between exposure to violence and the level of victimization. In all the specification we observe that traumatic events lead to higher significant level of victimization among the investors. In specification 1, without the firm specific and personal characteristics, when we regress the violence exposure on the level of victimization, We observe that experiencing violence increase the level of victimization. The coefficient associated with violence in model 1 suggests that the experience to violence likely to increase the probability of victimization by 41.6 percent. Additionally we observed similar results in model 2 and model 3 after the controlling the firm specific and personal characteristics. In model 2 after incorporating

the personal characteristics, we observed that experience to violence increases the probability of victimization by 40.5 percent. Similar results we observed in model 3, after controlling both the firm specific and personal characteristics. The coefficient associated with violence suggests that experience of traumatic events increased the probability of victimization by 0.399 percent.

Table 4: Violence and Victimization

VARIABLES	Model 1	Model 2	Model 3
Violence	0.416*** (0.061)	0.405*** (0.074)	0.399*** (0.075)
Constant	0.192*** (0.045)	-1.543*** (0.585)	-1.370** (0.619)
Observations	216	174	174
R-squared	0.161	0.248	0.270
Personal Characteristics	No	Yes	Yes
Firm Characteristics	No	No	Yes

Note: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors are reported in parentheses. Personal characteristics include age, education, experience and family size of the firm owner. Firm characteristics include age of the firm, number of employees, and profitability of the firm.

5.5 VIOLENCE AND INVESTMENT BEHAVIOR IN 2010

Table 5.5 demonstrates the impact of violence on the investment behavior of investors in year 2010, which was one of the intense periods in terms of violent shocks. The reason for doing the back period analysis is to have a broad idea about the precise effects of violence on the investment behavior. Interestingly, in the entire three models we observed that though violence has negative impact on the investment behavior, nonetheless, this impact is insignificant, meaning that in 2010 the violent shocks did not significantly deviate the investment behavior of

investors. In model 1 restricting the firm specific and personal characteristics we observed that the occurrence of violence likely to retard the investment by 75 percent, however this affect is insignificant. Similarly in model 2 after controlling for personal characteristics we observed the same results, as the occurrence of violence reduces the investment behavior by 44 percent. Additionally, after controlling both firm specific and personal characteristics, model 3 support the finding of model 1 and 2, model 3 also predict that violence has negative but insignificant effect on the behavior of investor.

Table 5.5: Violence and Investment Behavior in 2010

VARIABLES	Model 1	Model 2	Model 3
Violence	-0.075 (0.067)	-0.044 (0.080)	-0.050 (0.080)
Constant	0.372*** (0.055)	0.990 (0.710)	1.027 (0.728)
Observations	216	174	174
R-squared	0.006	0.030	0.052
Personal Characteristics	No	Yes	Yes
Firm Characteristics	No	No	Yes

Note: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors are reported in parentheses. Personal characteristics include age, education, experience and family size of the firm owner. Firm characteristics include age of the firm, number of employees, and profitability of the firm.

The insignificant result here means that violence was so high in the entire KP province then even people in Swabi were afraid of making additional investment fearing victimization. Hence, there behavior was not significantly different from those of investors in Peshawar.

5.6 VIOLENCE AND PERCIEVED INSECURITY IN 2010

The table 5.6 demonstrates the impact of violence on perceived insecurity in 2010. In all of the following models these impacts appear positive and highly significant, implying that exposure to violence trigger the perceived insecurity among the investors. Similar to the aforementioned procedure, regressing perceived insecurity on violence while restricting the other covariates – the personal and firm characteristics, we observe that exposure to violence is likely to increase the intensity of perceived insecurity by 95 percent. To confirm that our estimates are not driven by the other characteristics we include personal characteristics and firm characteristics in model 2 and model 3. With the incorporation of these characteristics; personal characteristics in model 2 and personal and firm characteristics in model 3, we perceived that parameters estimates associated with violence remain positive and significant, verifying the finding of model 1.

Table 5.6: Violence and Perceived Insecurity in 2010

VARIABLES	Model 1	Model 2	Model 3
Violence	0.950*** (0.180)	0.930*** (0.194)	0.921*** (0.199)
Constant	2.064*** (0.148)	0.397 (1.565)	0.779 (1.657)
Observations	216	174	174
R-squared	0.120	0.179	0.188
Personal Characteristics	No	Yes	Yes
Firm Characteristics	No	No	Yes

Note: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors are reported in parentheses. Personal characteristics include age, education, experience and family size of the firm owner. Firm characteristics include age of the firm, number of employees, and profitability of the firm

In model 2 (incorporating personal characteristics), we observed that the occurrence of violence likely to increase the level of perceived insecurity by 93 percent. Additionally in mode 3 (incorporating personal characteristics and firm characteristics) we observed that exposure to traumatic events increase the level of perceived insecurity by 92 percent which is slightly smaller than the coefficient of model 1 and 2.

Chapter 6

CONCLUSION AND POLICY RECOMENDATION

The purpose of this study was to enquire the effect of violence surge on investor behavior of investors in district Peshawar of KPK. We analyzed this affect by establishing a close counterpart business region that is district Swabi. In this study we collected the data in both district through questionnaire on investment behavior of investors in Peshawar and Swabi, personal characteristics and firm specific characteristics and exposure to violence. We collected the data of 78 firms in Swabi and 138 in district Peshawar, after using the regression approach we observed that compare to Swabi, investors in Peshawar (with the assumption of no capital constraints) exposed to violence significantly reduced their potential investment on spending additional capital goods. Additionally, to probe the channels through which this affect channelize to investment behavior, we proceed to the perceived security /insecurity level of investors and their level of victimization (physical and financial loss) in the region. In this stage after the regression analysis we observed that exposure to violence of the business communities increased their level of perceived insecurity and (robust to various specifications). Victimization level thus verified that it is the level of conflict exposure which reduced the level of additional investment by investors in district Peshawar. To do more in depth analysis, we used a lagged period (2010) perceived security/insecurity level and the level of victimization among the investors. This analysis also confirmed the aforementioned results to conclude that exposure to violence of investors retard the process of investment in district Peshawar and Swabi. Specifically in district Peshawar the investors were not willing to further invest similar to those in Swabi due to extremely high level of violence and the consequent uncertainty in the entire province.

6.1 POLICY RECOMMENDATION

Based on the results of the study, this recommends that appropriate security measures should be devised by the government to secure and assure the physical and financial security of investors to enhance the pace of development in both the regions. To reduce the financial loss the government should offer insurance schemes for the investors while to minimize the physical loss; the concern authorities should introduce effective security setup for the industrial zone.

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Questionnaire

My name is Waqar Ahmad, and I am MPhil scholar at Pakistan Institute of Development Economics, Islamabad. I am collecting data through questioner for my research dissertation “Violence and Business Activities, An Evidence from Khyber Pakhtunkhwa. The aim of the study is to collect information regarding investment behavior of the investor through violence in district Peshawar and Swabi. The data will be highly secured and it’s generally used for the sake of research purpose.

Personal characteristics

- Name -----
- Contact number -----
- 1) Age -----
- 2) Education -----
- 3) Experience -----
- 4) Family Size -----

Firm Characteristics

- 5) Age of the firm -----
- 6) Size of the firm (number of employees) -----
- 7) Location of the business size
Peshawar (1) Swabi (0) -----
- 8) Type of industry -----
- 9) Is your firm profitable?
(a) Yes (b) No

Conflict and Business Behavior

Q 10

If there is an additional investment opportunity and if you are not constraint by capital would you like to invest in same location?

(a) Yes (No)

Q 11

Have you, your family member or friends been affected by the violence directly or indirectly?

Yes (1) No (0)

Q 12

On a scale from 1 to 5, with 1 been most and 5 being least, how secure do you feel in this region?

(1) Most secure (2) somehow (3) less secure (4) Not secure (5) Don't know

Q 13

If in 2009-10 you had an additional investment opportunity in the current city and if you have not constraint by capital availability, would you had invested?

Yes (1) No (0)

Q 14

In 2009-10 on a scale of 1 to 5, how safe did you feel?

More secure (1) less Secure (2) Somehow (3) Not secure (4) Don't know (5).