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**Conventional and Islamic Equity Market Reaction towards
Terrorism and Disasters: An Evidence Based on Type,
Location and Islamic Calendar Months**



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**DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA**

**Conventional and Islamic Equity Market Reaction towards Terrorism and
Disasters: An Evidence Based on Type, Location and Islamic Calendar Months**

By

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UUM
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**Thesis Submitted to
School of Economics, Finance and Banking
Universiti Utara Malaysia,
in Fulfilment of the Requirement of the Degree of Doctor of Philosophy**

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ABSTRACT

Most prior researches have tested conventional equity market response towards terrorism and disasters. However, little attention has been paid to Islamic equity market. Besides, the equity market response towards terrorism and disasters based on the target/event type, event location and the Islamic calendar months has also remained underrepresented. The objective of this study is to investigate the conventional and Islamic equity market reactions towards terrorism and disasters in Pakistan based on the target/event type, event location and Islamic calendar months. In this regard, data from the year 2009 to 2016 was analyzed using Ordinary Least Square (OLS) regression and Generalized Autoregressive Conditional Heteroskedasticity (GARCH) (1,1) models. The key findings of the study indicate that the conventional and Islamic equity market reactions towards terrorism and disaster events are very short lived. The equity markets in Pakistan respond negatively to attacks on educational institutes and businesses whereas reacts positively to attacks on armed forces' facilities. The equity markets respond negatively to the earthquakes and positively to the storm and extreme temperature. The conventional equity market responds negatively to the terrorist attacks in Karachi and positively to the attacks in financial cities and Federally Administered Tribal Areas (FATA). Islamic equity market responds positively towards attacks in financial cities and FATA. However, coefficient values are small which indicate very minor reaction magnitude. Likewise, the equity markets are insensitive towards disaster locations with exception of Gilgit. Overall, this study finds little evidence that conventional and Islamic equity markets react towards terrorism and disasters, whereas, the markets reactions vary based on event/target type, event location and different Islamic calendar months. The positive equity market response towards attacks on armed forces indicates the investor perception that armed forces are confronted with terrorist groups. The government may restore the investor confidence by initiating counterterrorism policies.

Keywords: terrorism, disasters, conventional equity market, Islamic equity market, Pakistan

ABSTRAK

Banyak kajian terdahulu telah menguji tindak balas pasaran ekuiti konvensional terhadap keganasan dan bencana. Walau bagaimanapun, perhatian kurang diberikan kepada pasaran ekuiti Islam. Selain itu, tindak balas pasaran ekuiti terhadap keganasan dan bencana berdasarkan kepada sasaran /jenis peristiwa, lokasi peristiwa dan bulan kalendar Islam juga kurang diberi perhatian. Objektif kajian ini adalah untuk menyiasat tindak balas pasaran ekuiti konvensional dan Islam terhadap keganasan dan kemusnahan di Pakistan berdasarkan sasaran/jenis peristiwa, lokasi peristiwa dan bulan kalendar Islam. Sehubungan ini, data dari tahun 2009 hingga 2016 dianalisis dengan menggunakan regresi Kuasadua Terkecil Biasa (OLS) dan model Autoregresif Am Heteroskedastisiti Bersyarat (GARCH) (1,1). Dapatan kajian menunjukkan bahawa reaksi pasaran ekuiti konvensional dan Islam terhadap keganasan dan peristiwa bencana adalah sangat singkat. Pasaran ekuiti di Pakistan bertindak balas secara negatif terhadap serangan ke atas institusi pendidikan dan perniagaan tetapi bertindak balas secara positif terhadap serangan di kemudahan angkatan bersenjata. Pasaran ekuiti bertindak secara negatif terhadap gempa bumi dan positif kepada ribut dan suhu yang melampau. Pasaran ekuiti konvensional bertindak balas secara negatif terhadap serangan pengganas di Karachi dan secara positif terhadap serangan di bandaraya kewangan dan *Federally Administered Tribal Areas* (FATA). Pasaran ekuiti Islam bertindak balas secara positif terhadap serangan di bandar-bandar kewangan dan FATA. Namun demikian, nilai koefisien yang kecil menunjukkan magnitud reaksi yang minor. Sebaliknya, pasaran ekuiti tidak sensitif terhadap lokasi bencana, kecuali di Gilgit. Secara keseluruhan, kajian ini memperoleh sedikit bukti berkaitan tindak balas pasaran ekuiti konvensional dan Islam terhadap keganasan dan bencana, manakala tindak balas pasaran berbeza mengikut jenis peristiwa/sasaran, lokasi peristiwa dan bulan kalendar Islam yang berlainan. Tindak balas positif pasaran ekuiti terhadap serangan ke atas tentera bersenjata menunjukkan persepsi pelabur bahawa angkatan bersenjata berhadapan dengan kumpulan pengganas. Kerajaan boleh memulihkan keyakinan pelabur dengan memulakan dasar-dasar mencegah keganasan.

Kata kunci: keganasan, bencana, pasaran ekuiti konvensional, pasaran ekuiti Islam, Pakistan

ACKNOWLEDGEMENT



Firstly, I am deeply grateful to Allah SWT for giving me the chance to initiate my doctorate study and for the countless blessings of the intellect, health, wealth and family. Secondly, my sincere gratitude to my supervisor Dr. Hasniza bt. Mohd. Taib for the continuous support during my PhD study. I am very grateful for her patience, motivation, and guidance. Beside that she always supported and helped me whenever I felt lost during my journey. I could not have imagined having a better supervisor and mentor for my PhD study. Third, I would like to thank my reviewers Dr. Wong Woei Chyuan and Dr. Norzalina Binti Ahmad for their insightful comments and guidance during my proposal defense.

Fourth, I am especially grateful to my childhood friends Zarqa and Isha who always encouraged and supported me. I am also thankful to Dr. Saman, Dr. Fozia, Dr. Sana and Dr. Fatima because their presence and hospitality at Universiti Utara Malaysia made my stay enjoyable. Fifth, I am thankful to my family for their love and encouragement. I might not be able to do my work without the support and prayers of my parents. During last two year of my PhD studies, my loving, supportive and encouraging mother Rashada Irshad has taken care of my kids Azka Haroon and Ahmed Haroon for which I am deeply indebted to her. I am especially thankful to my father Muhammad Irshad Ranjha, my sisters Palwisha Irshad, Zil-e-Huma and my brother Sana Ullah to spend time without my mother. I am also thankful to my mother in law and father in law. Finally, I would like to express my deepest gratitude to my husband Dr. Haroon Hussain for his faith, patience and support during the whole journey of my PhD.

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LIST OF ABBREVIATIONS

ARCH	Autoregressive Conditional Heteroskedasticity
ARMA	Autoregressive Moving Average
BLUE	Best Linear Unbiased Estimator
EM-DAT	Emergency Events Database
EMH	Efficient Market Hypothesis
GTD	Global Terrorism Database
GARCH	Generalized Autoregressive Conditional Heteroskedasticity
OLS	Ordinary Least Square Regression
GDP	Gross Domestic Product
USD	United States Dollars
TTP	Tehrik-e-Taliban Pakistan
FATA	Federally Administered Tribal Areas
NGO	Non-Government Organization
MQM	Muhajir Quumi Movement
RET	Return
AF	Armed Forces
BUS	Business
EI	Educational Institutes
GOV	Government
PC	Private Citizen
RF	Religious Figures
OA	Other Attacks
FE	Flood Event
EE	Earthquake Event
ETE	Extreme Temperature Event
LS	Land Slide
ST	Storm
TD	Technological Disasters
KC	Karachi City

FC	Financial City
LC	Lahore City
FBA	FATA/Border Area
KSH	Kashmir
MUH	Muharram
SAF	Safar
RA	Rabi' al-awal
RTH	Rabi' al-thani
JA	Jumada al-awal
JTH	Jumada al-thani
RAJ	Rajab
SHA	Sha'aban
RAM	Ramaḍan
SHW	Shawwal
DQ	Duh al-Qidah



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CHAPTER ONE

INTRODUCTION

1.1 Background and Motivation of Study

Equity market is an organized and regulated market to trade shares at prices determined by the forces of demand and supply. Equity market performs the functions of primary market as well as the functions of secondary market. As primary market, it provides the mechanisms to corporations to raise their capital through channelizing investors saving into productive businesses. As secondary market, it provides the mechanisms to investors where they may liquidate their securities by selling to other investors. The development of equity market and steady performance increases the level of investment from domestic and foreign investors positively affecting the overall economic situation of a country (Levine & Zervos, 1996; Alfaro *et al.*, 2004; Zhang *et al.*, 2012). However, the performance of equity markets is influenced by different types of economic and non-economic events (Cao & Wei, 2005; Chesney *et al.*, 2011; Khalid *et al.*, 2012; Nazir *et al.*, 2014; Cao *et al.*, 2015).

Naturally, performance of equity market might be influenced by economic and non-economic events (Nazir *et al.*, 2014). Any negative event creates volatility in the stock market, therefore, it increases the financial distress. It may ultimately affect the performance of market by creating fear among investors who are reluctant to take risk (Ali & Afzal, 2012). Terrorism events are non-economic events that have gained

REFERENCES

- Abadie, A., & Gardeazabal, J. (2008). Terrorism and the world economy. *European Economic Review*, 52(1), 1-27.
- Abbas, H. (2014). *The Taliban revival: violence and extremism on the Pakistan-Afghanistan frontier*: Yale University Press.
- Abdullah, H. M., Khosa, F., & Nasrullah, M. (2015). Disaster planning and impending healthcare challenges during natural disasters in Pakistan. *Journal of the College of Physicians and Surgeons--Pakistan: JCPSP*, 25(7), 475-477.
- Addison, T. (2003). *From conflict to recovery in Africa*: Oxford University Press.
- Afik, Z., Lahav, Y., & Mandelzweig, L. (2016). The inverse of a terror event? Stock market response to pro-active action. *Studies in Economics and Finance*, 33(1), 91-105.
- Ahmad, N. (2015). Economic Losses from Disasters. Islamabad: Leadership for Environment & Development (LEAD) Pakistan.
- Ahmed, R., & Mustafa, K. (2012). Real Stock Returns and Inflation in Pakistan. *Research Journal of Finance and Accounting*, 3(6), 97-102.
- Ahmed, R. R. (2007). Study of economic development of Pakistan through stock market. Masters of Philosophy (M.Phil.) Thesis, Hamdard University.
- Akhtar, S., & Jahromi, M. (2017). Risk, return and mean-variance efficiency of Islamic and non-Islamic stocks: evidence from a unique Malaysian data set. *Accounting & Finance*, 57(1), 3-46.
- Al-Hajieh, H., Redhead, K., & Rodgers, T. (2011). Investor sentiment and calendar anomaly effects: A case study of the impact of Ramadan on Islamic Middle

- Eastern markets. *Research in International Business and Finance*, 25(3), 345-356.
- Al-Ississ, M. (2010). The impact of religious experience on financial markets. *working paper, Harvard Kennedy School of Government*.
- Al-Ississ, M. (2015). The holy day effect. *Journal of Behavioral and Experimental Finance*, 5(March), 60-80.
- Al-Khazali, O. (2014). Revisiting fast profit investor sentiment and stock returns during Ramadan. *International Review of Financial Analysis*, 33(May), 158-170.
- Al-Khazali, O., Lean, H. H., & Samet, A. (2014). Do Islamic stock indexes outperform conventional stock indexes? A stochastic dominance approach. *Pacific-Basin Finance Journal*, 28(June), 29-46.
- Al-Zoubi, H. A., & Maghyereh, A. I. (2007). The relative risk performance of Islamic finance: a new guide to less risky investments. *International Journal of Theoretical and Applied Finance*, 10(02), 235-249.
- Alam, A. (2012). Terrorism and stock market development: causality evidence from Pakistan. *Journal of Financial Crime*, 20(1), 116-128.
- Alam, N., Arshad, S., & Rizvi, S. A. R. (2016). Do Islamic stock indices perform better than conventional counterparts? An empirical investigation of sectoral efficiency. *Review of Financial Economics*, 31(November), 108-114.
- Albala-Bertrand, J.-M. (1993). Political economy of large natural disasters: with special reference to developing countries. *OUP Catalogue*, Oxford University Press, number 9780198287650.

- Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2004). FDI and economic growth: the role of local financial markets. *Journal of International Economics*, 64(1), 89-112.
- Ali, I., Akhter, W., & Ashraf, N. (2017). Impact of Muslim Holy Days on Asian stock markets: An empirical evidence. *Cogent Economics & Finance*, 5(1), 1311096.
- Ali, R., & Afzal, M. (2012). Impact of global financial crisis on stock markets: Evidence from Pakistan and India. *E3 Journal of Business Management and Economics*, 3(7), 275-282.
- Ali, S. (2013). *Environmental problems of Lahore and their reporting*. (Doctoral Dissertation, Lahore School of Economics).
- Ali, S. S., Mustafa, K., & Zaman, A. (2001). Testing semi-strong form efficiency of stock market. *The Pakistan Development Review*, 40(4), 651-674.
- Almudhaf, F. (2012). The Islamic calendar effects: Evidence from twelve stock markets. Available at SSRN: <https://ssrn.com/abstract=2131202>
- American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders, 10th revision. *Washington, DC, US: American Psychiatric Association*.
- Andrabi, T., Das, J., Fair, C. C., & Khwaja, A. I. (2009). The madrasa myth. *Foreign Policy*, 1-2.
- Andreasen, N., & Norris, A. (1972). Long-term adjustment and adaptation mechanisms in severely burned adults. *Journal of Nervous and Mental Disease*, 154(5), 352-362.

- Apergis, E., & Apergis, N. (2016). The 11/13 Paris terrorist attacks and stock prices: The case of the international defense industry. *Finance Research Letters*, 17, 186-192.
- Apergis, E., & Apergis, N. (2017). The impact of 11/13 Paris terrorist attacks on stock prices: evidence from the international defence industry. *Applied Economics Letters*, 24(1), 45-48.
- Ariel, R. A. (1987). A monthly effect in stock returns. *Journal of Financial Economics*, 18(1), 161-174.
- Ariel, R. A. (1990). High stock returns before holidays: Existence and evidence on possible causes. *The Journal of finance*, 45(5), 1611-1626.
- Arin, K. P., Ciferri, D., & Spagnolo, N. (2008). The price of terror: The effects of terrorism on stock market returns and volatility. *Economics Letters*, 101(3), 164-167.
- Asal, V., Fair, C. C., & Shellman, S. (2008). Consenting to a child's decision to join a jihad: Insights from a survey of militant families in pakistan. *Studies in Conflict & Terrorism*, 31(11), 973-994.
- Aslam, F., & Kang, H.-G. (2013). How different terrorist attacks affect stock markets. *Defence and Peace Economics*, 26(6), 634-648.
- Aslam, F., Kang, H.-G., Mohti, W., Rafique, A., & Salman, A. (2015). The impact of terrorism on financial markets: Evidence from asia. *The Singapore Economic Review*, 60(5), 1550111-1550122.
- Asquith, P., & Mullins, D. W. (1986). Equity issues and offering dilution. *Journal of Financial Economics*, 15(1), 61-89.
- Baltagi, B. H. (2008). *Econometrics* (4th ed.): Springer-Verlag Berlin Heidelberg.

- Barber, B. M., & Odean, T. (2000). Trading is hazardous to your wealth: The common stock investment performance of individual investors. *The Journal of Finance*, 55(2), 773-806.
- Barone, G., & Mocetti, S. (2014). Natural disasters, growth and institutions: a tale of two earthquakes. *Journal of Urban Economics*, 84(November), 52-66.
- Barry Johnston, R., & Nedelescu, O. M. (2006). The impact of terrorism on financial markets. *Journal of Financial Crime*, 13(1), 7-25.
- Basu, S. (1977). Investment performance of common stocks in relation to their price-earnings ratios: A test of the efficient market hypothesis. *The Journal of Finance*, 32(3), 663-682.
- Becker, G. S., & Mulligan, C. B. (1997). The endogenous determination of time preference. *The Quarterly Journal of Economics*, 112(3)729-758.
- Behera, N. C. (2016). The Kashmir Conflict: Multiple Fault Lines. *Journal of Asian Security and International Affairs*, 3(1), 41-63.
- Belasen, A. R., & Polachek, S. W. (2008). How hurricanes affect wages and employment in local labor markets. *The American Economic Review*, 98(2), 49-53.
- Benaković, D., & Posedel, P. (2010). Do macroeconomic factors matter for stock returns? Evidence from estimating a multifactor model on the Croatian market. *Business Systems Research*, 1(1-2), 39-46.
- Bennett, R., & Kottasz, R. (2000). Emergency fund-raising for disaster relief. *Disaster Prevention and Management: An International Journal*, 9(5), 352-360.
- Berkowitz, M. K., & Qiu, J. (2006). A further look at household portfolio choice and health status. *Journal of Banking & Finance*, 30(4), 1201-1217.

- Berrebi, C., & Ostwald, J. (2011). Earthquakes, hurricanes, and terrorism: do natural disasters incite terror? *Public Choice*, 149(3-4), 383-403.
- Berrebi, C., & Ostwald, J. (2013). Exploiting the chaos: terrorist target choice following natural disasters. *Southern Economic Journal*, 79(4), 793-811.
- Berument, H., & Kiymaz, H. (2001). The day of the week effect on stock market volatility. *Journal of Economics and Finance*, 25(2), 181-193.
- Białkowski, J., Bohl, M. T., Kaufmann, P., & Wisniewski, T. P. (2013). Do mutual fund managers exploit the Ramadan anomaly? Evidence from Turkey. *Emerging Markets Review*, 15(June), 211-232.
- Białkowski, J., Etebari, A., & Wisniewski, T. P. (2012). Fast profits: Investor sentiment and stock returns during Ramadan. *Journal of Banking & Finance*, 36(3), 835-845.
- Billon, P. L., & Waizenegger, A. (2007). Peace in the wake of disaster? Secessionist conflicts and the 2004 Indian Ocean tsunami. *Transactions of the Institute of British Geographers*, 32(3), 411-427.
- Bird, G., Blomberg, S. B., & Hess, G. D. (2008). International terrorism: Causes, consequences and cures. *The World Economy*, 31(2), 255-274.
- Birz, G., & Lott Jr, J. R. (2011). The effect of macroeconomic news on stock returns: New evidence from newspaper coverage. *Journal of Banking & Finance*, 35(11), 2791-2800.
- Blomberg, B., Hess, G., & Jackson, J. H. (2009). Terrorism and the returns to oil. *Economics & Politics*, 21(3), 409-432.
- Blomberg, S. B., Hess, G. D., & Orphanides, A. (2004). The macroeconomic consequences of terrorism. *Journal of Monetary Economics*, 51(5), 1007-1032.

- Blomberg, S. B., Hess, G. D., & Weerapana, A. (2002). *Terrorism from within: An economic model of terrorism*. Paper presented at the DIW Workshop „The Economic Consequences of Global Terrorism“, Berlin.
- Bogan, V. L., & Fertig, A. R. (2013). Portfolio choice and mental health. *Review of Finance*, 17(3), 955-992.
- Bolak, M., & Ömür, S. (2011). The effect of Marmara earthquake on financial institutions. *Doğuş Üniversitesi Dergisi*, 9(2), 135-145.
- Bolton, D., O'Ryan, D., Udwin, O., Boyle, S., & Yule, W. (2000). The long-term psychological effects of a disaster experienced in adolescence: II: General psychopathology. *The Journal of Child Psychology and Psychiatry and Allied Disciplines*, 41(4), 513-523.
- Bora Ramiah, V. (2012). The impact of international terrorist attacks on the risk and return of Malaysian equity portfolios. *Review of Pacific Basin Financial Markets and Policies*, 15(4), 1-26.
- Bosch, J.-C., Eckard, E. W., & Singal, V. (1998). The competitive impact of air crashes: Stock market evidence. *The Journal of Law and Economics*, 41(2), 503-519.
- Bouman, S., & Jacobsen, B. (2002). The Halloween indicator, "Sell in May and go away": Another puzzle. *The American Economic Review*, 92(5), 1618-1635.
- Bourdeau-Brien, M., & Kryzanowski, L. (2016). The impact of natural disasters on the stock returns and volatilities of local firms. *The Quarterly Review of Economics and Finance*, 63(February), 259-270 .
- Breeden, D. T. (1979). An intertemporal asset pricing model with stochastic consumption and investment opportunities. *Journal of Financial Economics*, 7(3), 265-296.

- Brennan, G. (2007). 17 Terror: the 'ISM' versus the 'ISTS'. *The Economic Analysis of Terrorism*, 285.
- Bromet, E. J., Atwoli, L., Kawakami, N., Navarro-Mateu, F., Piotrowski, P., King, A., . . . Demyttenaere, K. (2017). Post-traumatic stress disorder associated with natural and human-made disasters in the World Mental Health Surveys. *Psychological medicine*, 47(2), 227-241.
- Brooks, R. M., & Kim, H. (1997). The individual investor and the weekend effect: A reexamination with intraday data. *The Quarterly Review of Economics and Finance*, 37(3), 725-737.
- Brounen, D., & Derwall, J. (2010). The impact of terrorist attacks on international stock markets. *European Financial Management*, 16(4), 585-598.
- Brown, G. W., & Cliff, M. T. (2005). Investor sentiment and asset valuation. *The Journal of Business*, 78(2), 405-440.
- Brück, T., & Wickström, B.-A. (2004). The economic consequences of terror: guest editors' introduction. *European Journal of Political Economy*, 20(2), 293-300.
- Cameron, L., & Shah, M. (2015). Risk-taking behavior in the wake of natural disasters. *Journal of Human Resources*, 50(2), 484-515.
- Cao, G., Xu, W., & Guo, Y. (2015). Effects of climatic events on the Chinese stock market: applying event analysis. *Natural Hazards*, 77(3), 1979-1992.
- Cao, M., & Wei, J. (2005). Stock market returns: A note on temperature anomaly. *Journal of Banking & Finance*, 29(6), 1559-1573.
- Capelle-Blancard, G., & Laguna, M.-A. (2010). How does the stock market respond to chemical disasters? *Journal of Environmental Economics and management*, 59(2), 192-205.

- Carter, D. A., & Simkins, B. J. (2004). The market's reaction to unexpected, catastrophic events: the case of airline stock returns and the September 11th attacks. *The Quarterly Review of Economics and Finance*, 44(4), 539-558.
- Chakraborty, M. (2006). Market efficiency for the Pakistan stock market: evidence from the Karachi Stock Exchange. *South Asia Economic Journal*, 7(1), 67-81.
- Chaudhry, N., Roubaud, D., Akhter, W., & Shahbaz, M. (2018). Impact of terrorism on stock markets: empirical evidence from the SAARC region. *Finance Research Letters* 26(September), 230-234.
- Chen, A. H., & Siems, T. F. (2004). The effects of terrorism on global capital markets. *European Journal of Political Economy*, 20(2), 349-366.
- Chen, N.-F., Roll, R., & Ross, S. A. (1986). Economic forces and the stock market. *Journal of Business*, 59(3), 383-403.
- Chesney, M., Reshetar, G., & Karaman, M. (2011). The impact of terrorism on financial markets: An empirical study. *Journal of Banking & Finance*, 35(2), 253-267.
- Cho, Y.-H., Linton, O., & Whang, Y.-J. (2007). Are there Monday effects in stock returns: A stochastic dominance approach. *Journal of Empirical Finance*, 14(5), 736-755.
- Christofis, N., Kollias, C., Papadamou, S., & Stagiannis, A. (2013). Istanbul Stock Market's reaction to terrorist attacks. *Doğuş Üniversitesi Dergisi*, 14(2), 153-164.
- Chung, S.-L., Hung, C.-H., & Yeh, C.-Y. (2012). When does investor sentiment predict stock returns? *Journal of Empirical Finance*, 19(2), 217-240.
- Coleman, L. (2012). Testing equity market efficiency around terrorist attacks. *Applied Economics*, 44(31), 4087-4099.

- Connolly, R. A. (1989). An examination of the robustness of the weekend effect. *Journal of Financial and Quantitative Analysis*, 24(02), 133-169.
- Crespo Cuaresma, J., Hlouskova, J., & Obersteiner, M. (2008). Natural disasters as creative destruction? Evidence from developing countries. *Economic Inquiry*, 46(2), 214-226.
- Dahlquist, M., & Sellin, P. (1996). Stochastic dominance, tax-loss selling and seasonalities in Sweden. *The European Journal of Finance*, 2(1), 1-19.
- Dakof, G. A., & Taylor, S. E. (1990). Victims' perceptions of social support: What is helpful from whom? *Journal of Personality and Social Psychology*, 58(1), 80.
- Daniel, K., Hirshleifer, D., & Teoh, S. H. (2002). Investor psychology in capital markets: Evidence and policy implications. *Journal of Monetary Economics*, 49(1), 139-209.
- Danieli, Y., Brom, D., & Sills, J. (2005). The trauma of terrorism: Contextual considerations. *Journal of Aggression, Maltreatment & Trauma*, 9(1-2), 1-17.
- Dasgupta, S., Laplante, B., & Mamingi, N. (2001). Pollution and capital markets in developing countries. *Journal of Environmental Economics and management*, 42(3), 310-335.
- Derin-Güre, P. (2009). Does terrorism have economic roots? Boston University. Department of Economics Working Paper. Available from: <http://ideas.repec.org/p/bos/wpaper/wp2009-001.html>.
- Diamonte, R. L., Liew, J. M., & Stevens, R. L. (1996). Political risk in emerging and developed markets. *Financial Analysts Journal*, 52(3), 71-76.
- Dichtl, H., & Drobetz, W. (2014). Are stock markets really so inefficient? The case of the "Halloween Indicator". *Finance Research Letters*, 11(2), 112-121.

- Doyle, J. R., & Chen, C. H. (2009). The wandering weekday effect in major stock markets. *Journal of Banking & Finance*, 33(8), 1388-1399.
- Drakos, K. (2009). Big questions, little answers: Terrorism activity, investor sentiment and stock returns. *Economics of Security Working Paper Series*, 8.
- Drakos, K. (2010). Terrorism activity, investor sentiment, and stock returns. *Review of Financial Economics*, 19(3), 128-135.
- Drakos, K., & Kutan, A. M. (2003). Regional effects of terrorism on tourism in three Mediterranean countries. *Journal of Conflict Resolution*, 47(5), 621-641.
- Dreher, A., & Gassebner, M. (2008). Does political proximity to the US cause terror? *Economics Letters*, 99(1), 27-29.
- Duso, T., Neven, D. J., & Röller, L. H. (2007). The political economy of European merger control: evidence using stock market data. *Journal of Law and Economics*, 50(3), 455-489.
- Easterday, K. E., & Sen, P. K. (2016). Is the January effect rational? Insights from the accounting valuation model. *The Quarterly Review of Economics and Finance*, 59(February), 168-185.
- Eckstein, Z., & Tsiddon, D. (2004). Macroeconomic consequences of terror: theory and the case of Israel. *Journal of Monetary Economics*, 51(5), 971-1002.
- Edmans, A., Garcia, D., & Norli, Ø. (2007). Sports sentiment and stock returns. *The Journal of Finance*, 62(4), 1967-1998.
- Edwards, R. D. (2010). Optimal portfolio choice when utility depends on health. *International Journal of Economic Theory*, 6(2), 205-225.
- Eldor, R., & Melnick, R. (2004). Financial markets and terrorism. *European Journal of Political Economy*, 20(2), 367-386.

- EM-DAT (2016). Retrieved March, 2017, from <http://www.emdat.be/database>
- EM-DAT: The Emergency Events Database - Université catholique de Louvain (UCL)
- CRED, D. Guha-Sapir - www.emdat.be, Brussels, Belgium
- Enders, W., Sachsida, A., & Sandler, T. (2006). The impact of transnational terrorism on US foreign direct investment. *Political Research Quarterly*, 59(4), 517-531.
- Enders, W., & Sandler, T. (1996). Terrorism and foreign direct investment in Spain and Greece. *Kyklos*, 49(3), 331-352.
- Enders, W., & Sandler, T. (2006). Distribution of transnational terrorism among countries by income class and geography after 9/11. *International Studies Quarterly*, 50(2), 367-393.
- Enders, W., & Sandler, T. (2011). *The political economy of terrorism*: Cambridge University Press.
- Enders, W., Sandler, T., & Parise, G. F. (1992). An econometric analysis of the impact of terrorism on tourism. *Kyklos*, 45(4), 531-554.
- Engle, R. F., Ghysels, E., & Sohn, B. (2013). Stock market volatility and macroeconomic fundamentals. *Review of Economics and Statistics*, 95(3), 776-797.
- Essaddam, N., & Karagianis, J. M. (2014). Terrorism, country attributes, and the volatility of stock returns. *Research in International Business and Finance*, 31(May), 87-100.
- Essaddam, N., & Mnasri, A. (2015). Event-study volatility and bootstrapping: an international study. *Applied Economics Letters*, 22(3), 209-213.

- Estrada, M. A. R., Park, D., Kim, J. S., & Khan, A. (2015). The economic impact of terrorism: A new model and its application to Pakistan. *Journal of Policy Modeling*, 37(6), 1065-1080.
- Ewing, B. T., Kruse, J. B., & Thompson, M. A. (2005). Empirical examination of the Corpus Christi unemployment rate and Hurricane Bret. *Natural Hazards Review*, 6(4), 191-196.
- Fama, E. F. (1990). Stock returns, expected returns, and real activity. *The Journal of Finance*, 45(4), 1089-1108.
- Fama, E. F., Fisher, L., Jensen, M. C., & Roll, R. (1969). The adjustment of stock prices to new information. *International Economic Review*, 10(1), 1-21.
- Ferreira, S., & Karali, B. (2015). Do earthquakes shake stock markets? *PloS one*, 10(7), e0133319.
- Ferstl, R., Utz, S., & Wimmer, M. (2012). The effect of the Japan 2011 disaster on nuclear and alternative energy stocks worldwide: An event study. *Business Research*, 5(1), 25-41.
- Filer, R. K., & Stanišić, D. (2016). The effect of terrorist incidents on capital flows. *Review of Development Economics*, 20(2), 502-513.
- Finnerty, J. E. (1976). Insiders and market efficiency. *The Journal of Finance*, 31(4), 1141-1148.
- Frankenberg, E., Friedman, J., Gillespie, T., Ingwersen, N., Pynoos, R., Rifai, I. U., . . . Suriastini, W. (2008). Mental health in Sumatra after the tsunami. *American Journal of Public Health*, 98(9), 1671-1677.

- Frieder, L., & Subrahmanyam, A. (2002). Non-secular regularities in stock returns: the impact of the High Holy Days on the US Equity Market: Working Paper, University of California.
- Frieder, L., & Subrahmanyam, A. (2004). Nonsecular regularities in returns and volume. *Financial Analysts Journal*, 60(4), 29-34.
- Gaibullov, K., & Sandler, T. (2008). Growth consequences of terrorism in Western Europe. *Kyklos*, 61(3), 411-424.
- Gaibullov, K., & Sandler, T. (2011). The adverse effect of transnational and domestic terrorism on growth in Africa. *Journal of Peace Research*, 48(3), 355-371.
- Galea, S., Nandi, A., & Vlahov, D. (2005). The epidemiology of post-traumatic stress disorder after disasters. *Epidemiologic Reviews*, 27(1), 78-91.
- Gamble, R. C. (1993). The January effect and intergenerational transfers. *The Quarterly Review of Economics and Finance*, 33(3), 295-304.
- Ganguly, S. (2013). *Conflict unending: India-Pakistan tensions since 1947*: Columbia University Press.
- Gishkori, Z. (June 28, 2015). 212 organisations formally banned by Pakistan. *The Express Tribune*, <http://tribune.com.pk/story/911295/212-organisations-formally-banned-by-pakistan/>.
- GOP. (2013). *Economic Survey of Pakistan*. Islamabad, Pakistan.
- Government of Pakistan, G. (2017). *Population and Housing Census* Islamabad, Pakistan.
- Graham, M. A., & Ramiah, V. B. (2012). Global terrorism and adaptive expectations in financial markets: Evidence from Japanese equity market. *Research in International Business and Finance*, 26(1), 97-119.

- Grare, F. (2007). The evolution of sectarian conflicts in Pakistan and the ever-changing face of Islamic violence. *South Asia: Journal of South Asian Studies*, 30(1), 127-143.
- Greenbaum, R. T., Dugan, L., & LaFree, G. (2007). The impact of terrorism on Italian employment and business activity. *Urban Studies*, 44(5-6), 1093-1108.
- GTD, G. T. D. (2017). National Consortium for the Study of Terrorism and Responses to Terrorism (START). Retrieved from <https://www.start.umd.edu/gtd>
- Guidi, F., Gupta, R., & Maheshwari, S. (2011). Weak-form market efficiency and calendar anomalies for Eastern Europe equity markets. *Journal of Emerging Market Finance*, 10(3), 337-389.
- Gujarati, D. (2014). *Econometrics by Example*: Palgrave Macmillan.
- Gultekin, M. N., & Gultekin, N. B. (1983). Stock market seasonality: International evidence. *Journal of Financial Economics*, 12(4), 469-481.
- Guo, H., & Kliesen, K. L. (2005). Oil price volatility and US macroeconomic activity. *Review-Federal Reserve Bank of Saint Louis*, 87(6), 669-684.
- Halari, A., Helliard, C., Power, D. M., & Tantisantiwong, N. (2018). Taking advantage of Ramadan and January in Muslim countries. *The Quarterly Review of Economics and Finance*, May (2018).
- Halari, A., Tantisantiwong, N., Power, D. M., & Helliard, C. (2015). Islamic calendar anomalies: Evidence from Pakistani firm-level data. *The Quarterly Review of Economics and Finance*, 58(November), 64-73.
- Hallegatte, S., & Dumas, P. (2009). Can natural disasters have positive consequences? Investigating the role of embodied technical change. *Ecological Economics*, 68(3), 777-786.

- Hamilton, J. D., & Susmel, R. (1994). Autoregressive conditional heteroskedasticity and changes in regime. *Journal of Econometrics*, 64(1-2), 307-333.
- Hansen, P. R., & Lunde, A. (2005). A forecast comparison of volatility models: does anything beat a GARCH (1, 1)? *Journal of Applied Econometrics*, 20(7), 873-889.
- Hardouvelis, G. A., Malliaropulos, D., & Priestley, R. (2006). EMU and European Stock Market Integration. *The Journal of Business*, 79(1), 365-392.
- Harris, L. (1986). A transaction data study of weekly and intradaily patterns in stock returns. *Journal of Financial Economics*, 16(1), 99-117.
- Hassan, S. A., & Hashmi, M. S. (2015). Terrorism and the Response of Investors at Capital Market: A Case of Pakistan. *Pakistan Journal of Commerce and Social Sciences*, 9(1), 218-227.
- Heiman, G. (2013). *Basic statistics for the behavioral sciences*: Cengage Learning.
- Hess, G. D., & Orphanides, A. (1995). War politics: An economic, rational-voter framework. *The American Economic Review*, 85(4), 828-846.
- Hess, G. D., & Orphanides, A. (2001). Economic conditions, elections, and the magnitude of foreign conflicts. *Journal of Public Economics*, 80(1), 121-140.
- Hilary, G., & Hui, K. W. (2009). Does religion matter in corporate decision making in America? *Journal of Financial Economics*, 93(3), 455-473.
- Hill, J., & Schneeweis, T. (1983). The effect of Three Mile Island on electric utility stock prices: A note. *The Journal of Finance*, 38(4), 1285-1292.
- Hill, R. C., & Adkins, L. C. (2001). *Collinearity. A companion to theoretical econometrics*, Oxford: Blackwell Publishing, 257-278.

- Hirshleifer, D., & Shumway, T. (2003). Good day sunshine: Stock returns and the weather. *The Journal of Finance*, 58(3), 1009-1032.
- Ho, C. S. F., Rahman, N. A. A., Yusuf, N. H. M., & Zamzamin, Z. (2014). Performance of global Islamic versus conventional share indices: International evidence. *Pacific-Basin Finance Journal*, 28(June), 110-121.
- Ho, J. C., Qiu, M., & Tang, X. (2013). Do airlines always suffer from crashes? *Economics Letters*, 118(1), 113-117.
- Hobbs, J., Schaupp, L. C., & Gingrich, J. (2016). Terrorism, militarism, and stock returns. *Journal of Financial Crime*, 23(1), 70-86.
- Hochrainer, S. (2009). Assessing the macroeconomic impacts of natural disasters: are there any? *World Bank Policy Research Working Paper Series*, June, 2009.
- Holwerda D., Scholtens B. (2016) The Financial Impact of Terrorist Attacks on the Value of the Oil and Gas Industry: An International Review. In: Dorsman A., Arslan-Ayaydin Ö., Karan M. (eds) *Energy and Finance*. Springer, Cham
- Hon, M. T., Strauss, J., & Yong, S. K. (2004). Contagion in financial markets after September 11: myth or reality? *Journal of Financial Research*, 27(1), 95-114.
- Hood, M., Kamesaka, A., Nofsinger, J., & Tamura, T. (2013). Investor response to a natural disaster: Evidence from Japan's 2011 earthquake. *Pacific-Basin Finance Journal*, 25(November), 240-252.
- Houston, J. B., Pfefferbaum, B., & Rosenholtz, C. E. (2012). Disaster news: Framing and frame changing in coverage of major US natural disasters, 2000–2010. *Journalism & Mass Communication Quarterly*, 89(4), 606-623.

- Hsiang, S. M., & Jina, A. S. (2014). The causal effect of environmental catastrophe on long-run economic growth: Evidence from 6,700 cyclones: National Bureau of Economic Research.
- Humphrey, P., Carter, D. A., & Simkins, B. (2016). The market's reaction to unexpected, catastrophic events: The case of oil and gas stock returns and the Gulf oil spill. *The Journal of Risk Finance*, 17(1), 2-25.
- Husain, F. (1998). A seasonality in the Pakistani equity market: The Ramadhan effect. *The Pakistan Development Review*, 37(1), 77-81.
- Hussain, M. M., Aamir, M., Rasool, N., Fayyaz, M., & Mumtaz, M. (2012). The impact of macroeconomic variables on stock prices: an empirical analysis of Karachi stock exchange. *Mediterranean Journal of Social Sciences*, 3(3), 295-312.
- Hussain, S. E. (2010). *Terrorism in Pakistan: Incident patterns, terrorists' characteristics and the impact of terrorist arrests on terrorism*. (Doctor of Philosophy (PhD), University of Pennsylvania.
- Hussin, B. M., Ahmed, A. D., & Ying, T. C. (2010). Semi-strong form efficiency: Market reaction to dividend and earnings announcements in Malaysian stock exchange. *IUP Journal of Applied Finance*, 16(5), 36-60.
- Irshad, H. (2017). Relationship Among Political Instability, Stock Market Returns and Stock Market Volatility. *Studies in Business and Economics*, 12(2), 70-99.
- Irshad, H., Bhatti, G. A., Qayyum, A., & Hussain, H. (2014). Long run Relationship among Oil, Gold and Stock Prices in Pakistan, 6(4), 6-21.
- Irshad, H., & Sarwar, G. (2013). Is Karachi stock market weak form efficient? *Journal of Commerce*, 5(1), 7-13.

- Ismail, A., & Amjad, S. (2014). Determinants of terrorism in Pakistan: An empirical investigation. *Economic Modelling*, 37(February), 320-331.
- Jaffe, J., & Westerfield, R. (1985). The week-end effect in common stock returns: The international evidence. *The Journal of Finance*, 40(2), 433-454.
- Jaisinghani, D. (2016). An empirical test of calendar anomalies for the Indian securities markets. *South Asian Journal of Global Business Research*, 5(1), 53-84.
- Javaid, M. E., & Kousar, S. (2018). Impact of Terrorism, Political System and Exchange Rate Fluctuations on Stock Market Volatility. *Iranian Journal of Management Studies*, 11(3), 519-546.
- Javid, A. Y. (2007). *Stock market reaction to catastrophic shock: Evidence from listed Pakistani firms*. PIDE Working Papers (2007:37).
- Jawadi, F., Jawadi, N., & Louhichi, W. (2014). Conventional and Islamic stock price performance: An empirical investigation. *International Economics*, 137(May), 73-87.
- Jebran, K., & Chen, S. (2017). Examining anomalies in Islamic equity market of Pakistan. *Journal of Sustainable Finance & Investment*, 7(3), 275-289.
- Jensen, M. C. (1978). Some anomalous evidence regarding market efficiency. *Journal of Financial Economics*, 6(2/3), 95-101.
- Jiang, L., & Ya, Y. (2016). The India Controlled Kashmir Uprising in 1989 and US-Pak Relation. *Frontiers of Legal Research*, 4(1), 1-9.
- Johnston, P. B., & Sarbahi, A. K. (2016). The impact of US drone strikes on terrorism in Pakistan. *International Studies Quarterly*, 60(2), 203-219.
- Jorion, P., & Zhang, G. (2007). Information effects of bond rating changes: The role of the rating prior to the announcement. *Journal of Fixed Income*, 16(4) 45-59.

- Kahn, M. E. (2005). The death toll from natural disasters: the role of income, geography, and institutions. *Review of Economics and Statistics*, 87(2), 271-284.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica: Journal of the Econometric Society*, 263-291.
- Kamstra, M. J., Kramer, L. A., & Levi, M. D. (2003). Winter blues: A sad stock market cycle. *The American Economic Review*, 93(1), 324-343.
- Kaplanski, G., & Levy, H. (2010). Sentiment and stock prices: The case of aviation disasters. *Journal of Financial Economics*, 95(2), 174-201.
- Karolyi, G., & Martell, R. (2005). Terrorism and the Stock Market: Ohio State University, Charles A. Dice Center for Research in Financial Economics.
- Karolyi, G. A., & Martell, R. (2010). Terrorism and the stock market. *International Review of Applied Financial Issues and Economics*, 2, 285-314.
- Kawashima, S., & Takeda, F. (2012). The effect of the Fukushima nuclear accident on stock prices of electric power utilities in Japan. *Energy Economics*, 34(6), 2029-2038.
- Khalid, M., Altaf, M., Bagram, M. M. M., & Hussain, H. (2012). Long-run relationship of macroeconomic variables and stock returns: evidence from Karachi stock exchange (KSE) 100 index. *The Journal of Commerce*, 4(3), 45-59.
- Khan, A., Estrada, M. A. R., & Yusof, Z. (2016). How terrorism affects the economic performance? The case of Pakistan. *Quality & Quantity*, 50(2), 867-883.
- Khan, A., & Ikram, S. (2010). Testing semi-strong form of efficient market hypothesis in relation to the impact of foreign institutional investors'(FII's) investments on

- Indian capital market. *International Journal of Trade, Economics and Finance*, 1(4), 373-379.
- Galido, A. P., & Marites, A. (2013). Natural Disasters and the Philippine Stock Exchange Index: A Garch-M Analysis. *DLSU Business & Economics Review*, 22(2), 54-63.
- Kiyamaz, H., & Berument, H. (2003). The day of the week effect on stock market volatility and volume: International evidence. *Review of Financial Economics*, 12(4), 363-380.
- Koerniadi, H., Krishnamurti, C., & Tourani-Rad, A. (2011). *Natural disasters—Blessings in disguise?* Paper presented at the 2012 Financial Markets & Corporate Governance Conference.
- Koerniadi, H., Krishnamurti, C., & Tourani-Rad, A. (2014). Corporate governance and the variability of stock returns. *International Journal of Managerial Finance*, 10(4), 494-510.
- Koerniadi, H., Krishnamurti, C., & Tourani-Rad, A. (2016). Natural Disasters—Blessings in disguise? . *The Singapore Economic Review*, 61(01), 1640004-1-17.
- Kohers, T., & Kohli, R. K. (1991). The anomalous stock market behavior of large firms in January: the evidence from the S&P Composite and component indexes. *Quarterly journal of Business and Economics*, 30(3), 14-32.
- Kollias, C., Papadamou, S., & Stagiannis, A. (2011). Terrorism and capital markets: The effects of the Madrid and London bomb attacks. *International Review of Economics & Finance*, 20(4), 532-541.

- Kollias, C., Papadamou, S., & Stagiannis, A. (2012). The financial spillovers of the Gulf of Mexico oil accident. *Empirical Economics Letters*, 11(6), 633-643.
- Kouadio, I. K., Aljunid, S., Kamigaki, T., Hammad, K., & Oshitani, H. (2012). Infectious diseases following natural disasters: prevention and control measures. *Expert Review of Anti-Infective Therapy*, 10(1), 95-104.
- KR, K. R., & Fu, M. (2014). Does Shariah compliant stocks perform better than the conventional stocks? a comparative study stocks listed on the Australian stock exchange. *Asian Journal of Finance & Accounting*, 6(2), 155-170.
- Kukreja, V. (2003). *Contemporary Pakistan: Political processes, conflicts and crises*: Sage.
- Kumar, S., & Liu, J. (2013). Is it all different now for businesses? An analysis of terrorist attacks on businesses before and after 9/11. *International Journal of Decision Sciences, Risk and Management*, 5(2), 124-141.
- Kutan, A. M., & Yaya, M. E. (2016). Armed conflict and financial and economic risk: evidence from Colombia. *Risk Management*, 18(2-3), 159-187.
- Lamb, R. P. (1998). An examination of market efficiency around hurricanes. *Financial Review*, 33(1), 163-172.
- Lansford, T. (2014). *Political handbook of the world 2014*: Cq Press.
- Laopodis, N. T. (2007). *Fiscal policy, monetary policy, and the stock market*. Paper presented at the Annual International Conference on Macroeconomic Analysis and International Finance.
- Leiter, A. M., Oberhofer, H., & Raschky, P. A. (2009). Creative disasters? Flooding effects on capital, labour and productivity within European firms. *Environmental and Resource Economics*, 43(3), 333-350.

- Lenain, P., Bonturi, M., & Koen, V. (2002). The economic consequences of terrorism.
- Levine, R., & Zervos, S. (1996). Stock market development and long-run growth. *The World Bank Economic Review*, 10(2), 323-339.
- Li, P., Tang, H., & Liao, J. (2015). The intraday effect of nature disaster and production safety accident announcement based on high-frequency data from China's stock markets. *China Finance Review International*, 5(3), 277-302.
- Li, Q., & Schaub, D. (2004). Economic globalization and transnational terrorism: A pooled time-series analysis. *Journal of Conflict Resolution*, 48(2), 230-258.
- Li, Siquwen (2012) The Australian capital market reaction to natural catastrophes: an empirical analysis using event study method. In: Proceedings of Global Accounting, Finance and Economics Conference. 329. pp. 1-19. From: Global Accounting, Finance and Economics Conference, 20-21 February 2012, Melbourne, VIC, Australia.
- Li, W., & Cai, G. (2016). Religion and stock price crash risk: Evidence from China. *China Journal of Accounting Research*, 9(3), 235-250.
- Liargovas, P., & Repousis, S. (2010). The impact of terrorism on Greek Banks' Stocks: an event study. *International Research Journal of Finance and Economics*, 51, 88-96.
- Loayza, N. V., Olaberria, E., Rigolini, J., & Christiaensen, L. (2012). Natural disasters and growth: Going beyond the averages. *World Development*, 40(7), 1317-1336.
- Looney, R. (2004). Failed economic take-offs and terrorism in Pakistan: Conceptualizing a proper role for US assistance. *Asian Survey*, 44(6), 771-793.

- Lu, J., & Chou, R. K. (2012). Does the weather have impacts on returns and trading activities in order-driven stock markets? Evidence from China. *Journal of Empirical Finance*, 19(1), 79-93.
- Lucey, B. M., & Dowling, M. (2005). The role of feelings in investor decision-making. *Journal of Economic Surveys*, 19(2), 211-237.
- Lucey, B. M., & Zhao, S. (2008). Halloween or January? Yet another puzzle. *International Review of Financial Analysis*, 17(5), 1055-1069.
- Lyall, J., Blair, G., & Imai, K. (2013). Explaining support for combatants during wartime: A survey experiment in Afghanistan. *American Political Science Review*, 107(04), 679-705.
- Lyngsø Jørgensen, J., & Breum Nielsen, C. (2017). Global Catastrophe Effects—the Impact of Terrorism☆ *The Responsive Global Organization: New Insights from Global Strategy and International Business* (pp. 205-238): Emerald Publishing Limited.
- Majeed, U., Raheman, A., Sohail, M. K., Bhatti, G. A., & Zulfikar, B. (2015). Islamic calendar events and stock market reaction: Evidence from Pakistan. *Science International*, 27(3), 2559-2567.
- Majid, A., & Shabri, M. (2006). Policy and persistence of stock returns volatility: conventional versus Islamic stock market/Rosylin Mohd. Yusof and M. Shabri Abd. Majid. *Journal of International Business and Entrepreneurship*, 12(1), 49-68.
- Malatesta, P. H., & Thompson, R. (1985). Partially anticipated events: A model of stock price reactions with an application to corporate acquisitions. *Journal of Financial Economics*, 14(2), 237-250.

- Malkiel, B. G. (2003). The efficient market hypothesis and its critics. *The Journal of Economic Perspectives*, 17(1), 59-82.
- Malkiel, B. G. (2005). Reflections on the efficient market hypothesis: 30 years later. *Financial Review*, 40(1), 1-9.
- Malkiel, B. G., & Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, 25(2), 383-417.
- Masters, D. (2004). Support and nonsupport for nationalist rebellion: A prospect theory approach. *Political Psychology*, 25(5), 703-726.
- McDonald, R. (2007). *Introduction to natural and man-made disasters and their effects on buildings*: Routledge.
- Meierrieks, D., & Gries, T. (2012). Economic performance and terrorist activity in Latin America. *Defence and Peace Economics*, 23(5), 447-470.
- Meierrieks, D., & Gries, T. (2013). Causality between terrorism and economic growth. *Journal of Peace Research*, 50(1), 91-104.
- Memon, N. (2011). Climate Change and Natural Disasters in Pakistan. *Islamabad: Strengthening Participatory Organization (SPO)*, www.spo.org.
- Merton, R. C. (1973). Theory of rational option pricing. *The Bell Journal of Economics and Management Science*, 141-183.
- Ministry of Finance, G. o. P. (2013-14). *Pakistan Economic Survey* Islamabad Pakistan. (Ministry of Finance, 2013-14)
- Mnasri, A., & Nechi, S. (2016). Impact of terrorist attacks on stock market volatility in emerging markets. *Emerging Markets Review*, 28(September), 184-202.

- Mobarek, A., & Fiorante, A. (2014). The prospects of BRIC countries: Testing weak-form market efficiency. *Research in International Business and Finance*, 30(January), 217-232.
- Moges, M. (2013). A study on how disaster issues reported on the Ethiopian print media. *Online Journal of Communication and Media Technologies*, 3(4), 1-16.
- Mugeha, M. A. (2015). *The effect of Muslim holidays on stock returns of listed companies at the Nairobi securities exchange*. University of Nairobi.
- Muller, A., & Kräussl, R. (2008). *Do markets love misery? Stock prices and corporate philanthropic disaster response*. Paper presented at the Academy of Management Proceedings.
- Mustafa, K., Ahmed, R., & Siddiqui, A. A. (2013). Money supply and equity price movements in Pakistan. *European Journal of Business and Management*, 5(5), 146-156.
- Nakamura, E., Steinsson, J., Barro, R., & Ursúa, J. (2013). Crises and recoveries in an empirical model of consumption disasters. *American Economic Journal: Macroeconomics*, 5(3), 35-74.
- Narayan, P. K., Narayan, S., Khademalomoom, S., & Phan, D. H. B. (2018). Do terrorist attacks impact exchange rate behavior? New international evidence. *Economic Inquiry*, 56(1), 547-561.
- National Consortium for the Study of Terrorism and Responses to Terrorism (START). (2018). Global Terrorism Database [Data file]. Retrieved from <https://www.start.umd.edu/gtd>

- Nawaz, B., Sarfraz, A., Hussain, H., & Altaf, M. (2013). An empirical investigation on the existence of weak form efficiency: The case of Karachi stock exchange. *Management Science Letters*, 3(1), 65-72.
- Nazir, M. S., Younus, H., Kaleem, A., & Anwar, Z. (2014). Impact of political events on stock market returns: empirical evidence from Pakistan. *Journal of Economic and Administrative Sciences*, 30(1), 60-78.
- Nedelescu, O. M., & Johnston, M. R. (2005). *The Impact of Terrorism on Financial Markets* (No. 5-60) International Monetary Fund.
- Newey, W. K., & West, K. D. (1987). Hypothesis testing with efficient method of moments estimation. *International Economic Review*, 28(3), 777-787.
- Nikkinen, J., & Vähämaa, S. (2010). Terrorism and stock market sentiment. *Financial Review*, 45(2), 263-275.
- Nizami, A. T., Rana, M. H., Hassan, T. M., & Minhas, F. A. (2014). Terrorism in Pakistan: A behavioral sciences perspective. *Behavioral Sciences & the Law*, 32(3), 335-346.
- Norvaisiene, R., Stankeviciene, J., & Lakstutiene, A. (2015). Seasonality in the Baltic Stock Markets. *Procedia-Social and Behavioral Sciences*, 213(December), 468-473.
- Noy, I. (2009). The macroeconomic consequences of disasters. *Journal of Development Economics*, 88(2), 221-231.
- Noy, I., & Nualsri, A. (2011). Fiscal storms: public spending and revenues in the aftermath of natural disasters. *Environment and Development Economics*, 16(01), 113-128.

- Noy, I., & Vu, T. B. (2010). The economics of natural disasters in a developing country: The case of Vietnam. *Journal of Asian Economics*, 21(4), 345-354.
- Obienugh, J. (2010). *Jonbull's stock guide: How to invest profitably in a volatile stock market*. Trafford Publishing.
- Öcal, N., & Yildirim, J. (2010). Regional effects of terrorism on economic growth in Turkey: A geographically weighted regression approach. *Journal of Peace Research*, 47(4), 477-489.
- Oğuzsoy, C. B., & Güven, S. (2004). Holy days effect on Istanbul stock exchange. *Journal of Emerging Market Finance*, 3(1), 63-75.
- Okuyama, Yasuhide, "Economics of Natural Disasters: A Critical Review" (2003). Regional Research Institute Publications and Working Papers. 131. https://researchrepository.wvu.edu/rri_pubs/131
- Oliver, P. E., & Myers, D. J. (1999). How events enter the public sphere: Conflict, location, and sponsorship in local newspaper coverage of public events. *American Journal of Sociology*, 105(1), 38-87.
- Omar, M., Hussain, H., Bhatti, G. A., & Altaf, M. (2013). Testing of random walks in Karachi stock exchange. *Elixir Financial Management*, 54(2013), 12293-12299.
- Peleg, K., Regens, J. L., Gunter, J. T., & Jaffe, D. H. (2011). The normalisation of terror: the response of Israel's stock market to long periods of terrorism. *Disasters*, 35(1), 268-283.
- Phillips, P. J., & Pohl, G. (2017). Terrorist choice: a stochastic dominance and prospect theory analysis. *Defence and Peace Economics*, 28(2), 150-164.

- Poveda, A. C. (2011). Socio-economic development and violence: An empirical application for seven metropolitan areas in Colombia. *Peace Economics, Peace Science and Public Policy*, 17(1), 1-17.
- Powers, M., & Choi, S.-W. (2012). Does transnational terrorism reduce foreign direct investment? Business-related versus non-business-related terrorism. *Journal of Peace Research*, 49(3), 407-422.
- Procasky, W. J., & Ujah, N. U. (2016). Terrorism and its impact on the cost of debt. *Journal of International Money and Finance*, 60(February), 253-266.
- Quiros, L. (2010). Trauma, recovery, and growth: Positive psychological perspectives on posttraumatic stress: Taylor & Francis.
- Qureshi, S. (2010). The fast growing megacity Karachi as a frontier of environmental challenges: Urbanization and contemporary urbanism issues. *Journal of Geography and Regional Planning*, 3(11), 306-321.
- Raby, G. (2003). *The Costs of Terrorism and the Benefits of Cooperating to combat Terrorism*. Paper presented at the Secure Trade in the APEC Region (STAR) Conference.
- Ramezani, A., Pouraghajan, A., & Mardani, H. (2013). Studying impact of Ramadan on stock exchange index: Case of Iran. *World of Sciences Journal*, 1(12), 46-54.
- Ramiah, V. (2013). Effects of the Boxing Day tsunami on the world capital markets. *Review of Quantitative Finance and Accounting*, 40(2), 383-401.
- Ramiah, V., Cam, M.-A., Calabro, M., Maher, D., & Ghafouri, S. (2010). Changes in equity returns and volatility across different Australian industries following the recent terrorist attacks. *Pacific-Basin Finance Journal*, 18(1), 64-76.

- Ramiah, V., & Graham, M. (2013). The impact of domestic and international terrorism on equity markets: evidence from Indonesia. *International Journal of Accounting & Information Management*, 21(1), 91-107.
- Rana, M. E., & Akhter, W. (2015). Performance of Islamic and conventional stock indices: empirical evidence from an emerging economy. *Financial Innovation*, 1(1), 1-17.
- Randolph, K. A., & Myers, L. L. (2013). *Basic Statistics in Multivariate Analysis*: Oxford University Press.
- Rashid, A. (2010). *Taliban*: Yale University Press.
- Rasmussen, T. N., Rasmussen, N., & Robinson, O. (2004). Macroeconomic implications of natural disasters in the Caribbean. IMF working paper WP/04/224.
- Raza, A., & Haq, S. (2015). National Disaster Management Authority in Pakistan: Role of Pakistan Army in Disaster Management. *Journal of Social and Administrative Sciences*, 2(1), 11-17.
- Rehman, A., Jingdong, L., & Hussain, I. (2015). The province-wise literacy rate in Pakistan and its impact on the economy. *Pacific Science Review B: Humanities and Social Sciences*, 1(3), 140-144.
- Renner, M. (2007). Beyond disasters: creating opportunities for peace (Vol. 173). Worldwatch Institute.
- Riedel, B. (2008). Pakistan: The critical battlefield. *Current History*, 107(712), 355-361.
- Rigobon, R., & Sack, B. (2005). The effects of war risk on US financial markets. *Journal of Banking & Finance*, 29(7), 1769-1789.

- Rosellini, A. J., Dussaillant, F., Zubizarreta, J. R., Kessler, R. C., & Rose, S. (2018). Predicting posttraumatic stress disorder following a natural disaster. *Journal of Psychiatric Research*, 96(January), 15-22.
- Rosenzweig, M. R., & Stark, O. (1989). Consumption smoothing, migration, and marriage: Evidence from rural India. *Journal of political Economy*, 97(4), 905-926.
- Rozeff, M. S., & Zaman, M. A. (1988). Market efficiency and insider trading: New evidence. *Journal of Business*, January(1988), 25-44.
- Ryaly, V. R., Raju, G. S., & Urlankula, B. (2017). Testing the Weak-Form Market Efficiency in the Indian Stock Market: Evidence from the Bombay Stock Exchange Index (BSE) Sensex. *Indian Journal of Finance*, 11(3), 26-40.
- Saeed, L., Syed, S. H., & Martin, R. P. (2014). Historical patterns of terrorism in Pakistan. *Defense & Security Analysis*, 30(3), 209-229.
- Sambanis, N. (2008). Terrorism and civil war. *Terrorism, economic development, and political openness*, 174-206.
- Sandler, T., & Enders, W. (2008). Economic consequences of terrorism in developed and developing countries. *Terrorism, economic development, and political openness*, 17(2008).
- Sayre, E. A. (2009). Labor market conditions, political events, and Palestinian suicide bombings. *Peace Economics, Peace Science and Public Policy*, 15(1), 1-26.
- Schaffer, T. C. (2008). The madrassah challenge: Militancy and religious education in Pakistan: Routledge Journals, Taylor & Francis Ltd, Park Square, Milton Park, Abingdon, Oxfordshire, England.

- Schmeling, M. (2009). Investor sentiment and stock returns: Some international evidence. *Journal of Empirical Finance*, 16(3), 394-408.
- Schmid, A. P. (2012). The revised academic consensus definition of terrorism. *Perspectives on Terrorism*, 6(2), 158-159.
- Scholtens, B., & Boersen, A. (2011). Stocks and energy shocks: the impact of energy accidents on stock market value. *Energy*, 36(3), 1698-1702.
- Scholtens, B., & Voorhorst, Y. (2013). The impact of earthquakes on the domestic stock market. *Earthquake Spectra*, 29(1), 325-337.
- Schuster, M. A., Stein, B. D., Jaycox, L. H., Collins, R. L., Marshall, G. N., Elliott, M. N., . . . Berry, S. H. (2001). A national survey of stress reactions after the September 11, 2001, terrorist attacks. *New England Journal of Medicine*, 345(20), 1507-1512.
- Schwert, G. W. (2003). Anomalies and market efficiency. *Handbook of the Economics of Finance*, 1(B), 939-974.
- Seif, M., Docherty, P., & Shamsuddin, A. (2017). Seasonal anomalies in advanced emerging stock markets. *The Quarterly Review of Economics and Finance*, 66(November), 169-181.
- Seyhun, H. N. (1993). Can omitted risk factors explain the january effect? A stochastic dominance approach. *Journal of Financial and Quantitative Analysis*, 28(02), 195-212.
- Shah, N., Qureshi, M. N., & Aslam, Y. (2017). An Empirical Investigation of Islamic Calendar Effect in Global Islamic Equity Indices. *International Journal of Economics and Finance*, 9(6), 57-68.

- Shahbaz, M., Shabbir, M. S., Malik, M. N., & Wolters, M. E. (2013). An analysis of a causal relationship between economic growth and terrorism in Pakistan. *Economic Modelling*, 35(September), 21-29.
- Shan, L., & Gong, S. X. (2012). Investor sentiment and stock returns: Wenchuan earthquake. *Finance Research Letters*, 9(1), 36-47.
- Sharon, T.-R., & Tchai, T. (2014). *Disasters and acts of terror and their impact on capital markets—perliminary results*. Paper presented at the Proceedings in EIIC-The 3rd Electronic International Interdisciplinary Conference.
- Shelor, R. M., Anderson, D. C., & Mark, L. C. (1990). The Impact of the California Earthquake on Real Estate Firms' Stock Value. *Journal of Real Estate Research*, 5(3), 335-340.
- Sherif, M. (2016). Ethical Dow Jones indexes and investment performance: international evidence. *Investment Management and Financial Innovations*, 13(2), 88-106.
- Shoemaker, P. J., & Reese, S. D. (2013). *Mediating the message in the 21st century: A media sociology perspective*: Routledge.
- Shu, H.-C. (2010). Investor mood and financial markets. *Journal of Economic Behavior & Organization*, 76(2), 267-282.
- Shu, H.-C., & Chang, J.-H. (2015). Investor sentiment and financial market volatility. *Journal of Behavioral Finance*, 16(3), 206-219.
- Siddiqi, A. (2011). Pakistan's counterterrorism strategy: Separating friends from enemies. *The Washington Quarterly*, 34(1), 149-162.
- Skidmore, M., & Toya, H. (2002). Do natural disasters promote long-run growth? *Economic Inquiry*, 40(4), 664-687.

- Slovic, P., Monahan, J., & MacGregor, D. G. (2000). Violence risk assessment and risk communication: the effects of using actual cases, providing instruction, and employing probability versus frequency formats. *Law and human behavior*, 24(3), 271-296.
- Sohail, N., & Hussain, Z. (2009). Long-run and short-run relationship between macroeconomic variables and stock prices in Pakistan: The case of Lahore stock exchange. *Pakistan Economic and Social Review*, 47(2), 183-198.
- Spudeck, R. E., & Moyer, R. C. (1989). A note on the stock market's reaction to the accident at Three Mile Island. *Journal of Economics and Business*, 41(3), 235-240.
- Stern, J. (2000). Pakistan's Jihad culture. *Foreign Affairs*, 115-126.
- Stewart, F., & Fitzgerald, V. (2000). *War and Underdevelopment: Country Experiences*: Oxford University Press.
- Stulz, R. M., & Williamson, R. (2003). Culture, openness, and finance. *Journal of Financial Economics*, 70(3), 313-349.
- Sunstein, C. R. (2003). Terrorism and probability neglect. *Journal of Risk and Uncertainty*, 26(2-3), 121-136.
- Swathi, J. M. (2015). The profile of disaster risk of Pakistan and institutional response. *Emergency and Disaster Reports*, 2(1), 2-55.
- Syed, F., & Khan, N. U. (2017). Islamic Calendar Anomalies: Evidence from Pakistan. *Business & Economic Review*, 9(3), 1-30.
- Symeonidis, L., Daskalakis, G., & Markellos, R. N. (2010). Does the weather affect stock market volatility? *Finance Research Letters*, 7(4), 214-223.

- Tahir Suleman, M. (2012). Stock market reaction to terrorist attacks: empirical evidence from a front line state. *Australasian Accounting, Business and Finance Journal*, 6(1), 97-110.
- Taib, H. M., Di Lorio, A., Hallahan, T., & Bissoondoyal-Bheenick, E. (2011). *The Stock Market Impact of Corporate Bond Rating Changes: New Evidence from the UK and Australian Stock Markets*. Paper presented at the European Financial Management Association 2012 Annual Meetings: Conference participants paper.
- Tantisantiwong, N., Halari, A., Helliard, C., & Power, D. (2018). East meets West: When the Islamic and Gregorian calendars coincide. *The British Accounting Review*, 50(4), 402-424.
- Tanveer, M., Bhatti, G. A., & Aslam, F. (2015). Proposed merger and executed merger: Which announcement is more influential in share pricing? *Pakistan Business Review*, 17(2), 385-396.
- Tavor, T. (2016). The effect of terror incidents on the yield of developing and developed markets. *Journal of Financial Crime*, 23(2), 317-327.
- Tedeschi, R. G., & Calhoun, L. G. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, 9(3), 455-471.
- Thomas, L., DiGiulio, R., & Sheehan, N. (1991). Identifying loss and psychological crisis in widowhood. *International Journal of Aging and Human Development*, 26, 279-295.
- Toya, H., & Skidmore, M. (2007). Economic development and the impacts of natural disasters. *Economics Letters*, 94(1), 20-25.

- Tversky, A., & Kahneman, D. (1975). Judgment under uncertainty: Heuristics and biases *Utility, probability, and human decision making* (pp. 141-162): Springer.
- Tversky, A., & Kahneman, D. (1992). Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and Uncertainty*, 5(4), 297-323.
- Umar, Z. (2017). Islamic vs conventional equities in a strategic asset allocation framework. *Pacific-Basin Finance Journal*, 42(April), 1-10.
- Urquhart, A., & Hudson, R. (2016). Investor sentiment and local bias in extreme circumstances: The case of the Blitz. *Research in International Business and Finance*, 36(January), 340-350.
- Ursano, R. J., Fullerton, C. S., Weisaeth, L., & Raphael, B. (2007). *Textbook of disaster psychiatry*: Cambridge University Press.
- Viscusi, W. K. (2009). Valuing risks of death from terrorism and natural disasters. *Journal of Risk and Uncertainty*, 38(3), 191-213.
- Wang, L., & Kutan, A. M. (2013). The impact of natural disasters on stock markets: Evidence from Japan and the US. *Comparative Economic Studies*, 55(4), 672-686.
- Watson, J. T., Gayer, M., & Connolly, M. A. (2007). Epidemics after natural disasters. *Emerging Infectious Diseases*, 13(1), 1-5.
- Weems, C. F., Pina, A. A., Costa, N. M., Watts, S. E., Taylor, L. K., & Cannon, M. F. (2007). Predisaster trait anxiety and negative affect predict posttraumatic stress in youths after Hurricane Katrina. *Journal of Consulting and Clinical Psychology*, 75(1), 154-159.
- Weiner, T. (1998). Afghan Taliban camps were built by NATO. *The New York Times*.

- White, H. (1980). A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica: Journal of the Econometric Society*, 48(4), 817-838.
- Williams, B. G. (2008). Talibanistan: History of a transnational terrorist sanctuary. *Civil Wars*, 10(1), 40-59.
- Wingender, J., & Groff, J. E. (1989). On stochastic dominance analysis of day-of-the-week return patterns. *Journal of Financial Research*, 12(1), 51-55.
- Witte, G. (2010). Flooding's devastation in Pakistan is seen as opportunity for Taliban. *The Washington Post*, 9, A06.
- Wolpert, S. (2010). *India and Pakistan: continued conflict or cooperation?* : University of California Press.
- Worthington, A., & Valadkhani, A. (2004). Measuring the impact of natural disasters on capital markets: an empirical application using intervention analysis. *Applied Economics*, 36(19), 2177-2186.
- Worthington, A., & Valadkhani, A. (2005). Catastrophic shocks and capital markets: a comparative analysis by disaster and sector. *Global Economic Review*, 34(3), 331-344.
- Worthington, A. C. (2008). The impact of natural events and disasters on the Australian stock market: a GARCH-M analysis of storms, floods, cyclones, earthquakes and bushfires. *Global Business and Economics Review*, 10(1), 1-10.
- Yan, Y., & Bissell, K. (2018). The sky is falling: Predictors of news coverage of natural disasters worldwide. *Communication Research*, 45(6), 862-886.
- Yang, C. C., Wang, M., & Chen, X. (2008). Catastrophe effects on stock markets and catastrophe risk securitization. *The Journal of Risk Finance*, 9(3), 232-243.

- Yang, D. (2008). Coping with disaster: The impact of hurricanes on international financial flows, 1970-2002. *The BE Journal of Economic Analysis & Policy*, 8(1), 1-43.
- Yehuda, R., & Hyman, S. E. (2005). The impact of terrorism on brain, and behavior: what we know and what we need to know. *Neuropsychopharmacology*, 30(10), 1773-1780.
- Yuan, K., Zheng, L., & Zhu, Q. (2006). Are investors moonstruck? Lunar phases and stock returns. *Journal of Empirical Finance*, 13(1), 1-23.
- Yule, W., Bolton, D., Udwin, O., Boyle, S., O'Ryan, D., & Nurrish, J. (2000). The long-term psychological effects of a disaster experienced in adolescence: I: The incidence and course of PTSD. *The Journal of Child Psychology and Psychiatry and Allied Disciplines*, 41(4), 503-511.
- Yusof, R. M., Majid, A., & Shabri, M. (2007). Stock market volatility transmission in Malaysia: Islamic versus conventional stock market. *Journal of King Abdulaziz University: Islamic Economics*, 20(2).
- Yusuf, H. (2012). *Conflict dynamics in Karachi*: US Institute of Peace.
- Zaheer, L. (2016). Media coverage of natural disasters in Pakistan: The case of Earthquake (2005), Flood (2010) and Famine (2014). *Journal of the Research Society of Pakistan*, 53(1), 75-94.
- Zhang, J., Wang, L., & Wang, S. (2012). Financial development and economic growth: Recent evidence from China. *Journal of Comparative Economics*, 40(3), 393-412.
- Zivot, E. (2009). Practical issues in the analysis of univariate GARCH models *Handbook of Financial Time Series* (pp. 113-155): Springer.

APPENDICES

The current study has tested the market reaction towards terrorism by taking four different samples of terrorism events. Following Table shows the four different samples tested in this study where last samples are reported in the appendices.

Table 6.1 Total number of Terrorism Events During Selected Time

Sr. No.	Sample Description	Criteria	No. of Events
1	Terrorism Events	All events with at least 20 killings	109
2	Terrorism Events	All events with at least 10 killings	285
3	Terrorism Events	All events with at least 07 killings	438
4	Terrorism Events	All events with at least 03 killings	1206

The data includes days where more than one events happened on the same date. This study has considered those events as one which occurred on the similar day. Thus, the following Tables indicates the number of terrorism events that were finally assumed in the data analysis.

Table 6.2 Sample of Terrorism Events

Sr. No.	Sample Description	Criteria	No. of Events
1	Terrorism Events	All events with at least 20 killings	93
2	Terrorism Events	All events with at least 10 killings	234
3	Terrorism Events	All events with at least 07 killings	344
4	Terrorism Events	All events with at least 03 killings	735

Terrorism Events with at least 3 Causalities

The following Tables provides the impact of terrorism events on the conventional and Islamic equity market returns based on the sample of events with at least 3 causalities.

Table 6.3: Terrorism Events and Stock Market using OLS Regression

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.105423***	0.032111	-0.039060	0.084031
Neg1	0.000116	0.00043	0.000033	0.000515
Neg2	0.000803*	0.000424	0.001220**	0.000548
Neg3	0.000637	0.000444	0.000889*	0.00053
Event day	-0.00035	0.000444	-0.000474	0.00052
Pos1	0.000182	0.000434	0.000475	0.000536
Pos2	0.000284	0.000436	0.000002	0.000554
Pos3	0.000313	0.000424	0.000150	0.000508
Durbin Watson test	2.003767		1.998384	
DW				
Breusch–Pagan test prob.	0		0	
Serial Correlation	0.4857		1	
LM Test prob.				

Note: Ret_{t-1} indicate the one period lagged return, Neg₁ indicates the one day before the event day, Neg₂ indicates two days before the event day, Neg₃ indicates three days before the event, Event day indicates the day event happened, Pos₁ indicates one day after the event, Pos₂ indicates two days after the event, Pos₃ indicates three days after the event and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.4: Terrorism Events and Stock Market using GARCH (1,1)

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Mean Equation				
Ret _{t-1}	0.15457000***	0.025153	0.133263***	0.026101
Neg1	0.00041600	0.000338	0.000406	0.000369
Neg2	0.00061000*	0.000343	0.000662*	0.000348
Neg3	0.00062300*	0.000364	0.000555	0.000403
Event day	0.00012200	0.000365	0.000262	0.00039
Pos1	-0.00004750	0.000355	0.00033	0.000368
Pos2	0.00010200	0.00035	0.000151	0.000376
Pos3	-0.00013100	0.000354	-0.00061*	0.000359
Variance Equation				
C	0.0000070***	0.000001	0.000008***	0.000001
RESID(-1)^2	0.1460490***	0.017024	0.143694***	0.010000
GARCH(-1)	0.7913090***	0.018337	0.815214***	0.008490
Ret _{t-1}	-0.0012750***	0.000135	-0.001341***	0.000145
Neg1	-0.0000112***	0.000004	-0.000007	0.000005
Neg2	-0.0000006	0.000004	-0.000012**	0.000005
Neg3	0.0000007	0.000003	0.000010**	0.000004
Event day	0.0000254***	0.000004	0.000022***	0.000005
Pos1	-0.0000201***	0.000005	-0.000016***	0.000005
Pos2	0.0000121***	0.000004	0.000012**	0.000005
Pos3	-0.0000052	0.000003	-0.000012***	0.000004

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return, Neg₁ indicates the one day before the event day, Neg₂ indicates two days before the event day, Neg₃ indicates three days before the event, Event day indicates the day event happened, Pos₁ indicates one day after the event, Pos₂ indicates two days after the event, Pos₃ indicates three days after the event and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.5: Terrorism Target Types and Stock Market using OLS Regression

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.11040***	0.03230	-0.034926	0.084517
Armed Forces	0.00051	0.00053	0.00014	0.000683
Business	-0.00230	0.00142	-0.000115	0.001678
Educational Ins.	-0.00445	0.00312	-0.005804*	0.003351
Government	0.00071	0.00118	0.001751	0.001267
Private Citizen	0.00094	0.00064	0.001472*	0.000736
Religious Figures	0.00142	0.00131	-0.000207	0.001604
Other Attacks	0.00005	0.00072	-0.000177	0.000795
Durbin Watson test	2.009514		2.009402	
DW				
Breusch–Pagan test prob.	0		0	
Serial Correlation	1		1	
LM Test prob.				

Note: C indicates the intercept term for the equation, Ret_{t-1}, indicate the one period lagged return. Armed Forces is a dummy variable which takes value of 1 for any terrorist attack where target of attack is armed forces zero otherwise, Business is a dummy variable which takes value of 1 for any terrorist attack where target of attack is business places zero otherwise, Educational Institutes is a dummy variable which takes value of 1 for any terrorist attack where target of attack is educational institute zero otherwise, Government is a dummy variable which takes value of 1 for any terrorist attack where target of attack is government offices zero otherwise, Private citizens is a dummy variable which takes value of 1 for any terrorist attack where target of attack is private citizen zero otherwise, Religious figures is a dummy variable which takes value of 1 for any terrorist attack where target of attack is any religious figure or institute zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.6: Terrorism Target Types and Stock Market using GARCH (1,1)

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Mean Equation				
Ret _{t-1}	0.177451***	0.025436	0.15433***	0.02657
Armed Forces	0.000702*	0.000415	0.00089*	0.00052
Business	-0.00109	0.001166	-0.00052	0.00119
Educational Ins.	-0.00629**	0.002611	-0.00674**	0.00342
Government	0.00098	0.000858	0.00081	0.00089
Private Citizen	0.000933**	0.000478	0.00112**	0.00055
Religious Figures	0.00117	0.001171	0.00034	0.00114
Other Attacks	0.000216	0.000584	-0.00009	0.00062
Variance Equation				
C	0.00001***	0.00000	0.00001***	0.00000
RESID(-1)^2	0.15778***	0.01818	0.15970***	0.01060
GARCH(-1)	0.76525***	0.01967	0.79620***	0.00809
Ret _{t-1}	-0.00148***	0.00015	-0.00157***	0.00014
Armed Forces	0.00000	0.00000	0.00000	0.00000
Business	0.00000	0.00001	0.00000	0.00001
Educational Ins.	0.00002	0.00002	0.00001	0.00002
Government	0.00000	0.00001	0.00000	0.00001
Private Citizen	0.00000	0.00000	0.00001	0.00000
Religious Figures	0.00001**	0.00001	0.00001*	0.00001
Other Attacks	0.00000	0.00000	0.00000	0.00000

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return. Armed Forces is a dummy variable which takes value of 1 for any terrorist attack where target of attack is armed forces zero otherwise, Business is a dummy variable which takes value of 1 for any terrorist attack where target of attack is business places zero otherwise, Educational Institutes is a dummy variable which takes value of 1 for any terrorist attack where target of attack is educational institute zero otherwise, Government is a dummy variable which takes value of 1 for any terrorist attack where target of attack is government offices zero otherwise, Private citizens is a dummy variable which takes value of 1 for any terrorist attack where target of attack is private citizen zero otherwise, Religious figures is a dummy variable which takes value of 1 for any terrorist attack where target of attack is any religious figure or institute zero otherwise, Other attacks is a dummy variable which takes value of 1 for any terrorist attack other than previously mentioned zero otherwise, and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.7: Terrorism Location and Stock Market using OLS Regression

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.11306***	0.03221	-0.033681	0.084734
Karachi	0.00070	0.00095	0.000367	0.000903
Financial City	0.00190	0.00201	0.003087*	0.001714
Large City	-0.00054	0.00082	-0.000158	0.000989
FATA	0.00089	0.00065	0.001327*	0.000801
Gilgit	0.00015	0.00124	-0.005077*	0.00307
Kashmir	0.00152	0.00351	0.003273*	0.001968
Other Locations	0.00020	0.00051	0.000034	0.000657
Durbin Watson test	2.004806		2.000262	
DW				
Breusch–Pagan test prob.	0		0	
Serial Correlation LM Test prob.	1		1	

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return. Karachi is a dummy variable which takes the value of 1 for any terrorist attack happening in Karachi zero otherwise, Financial city is a dummy variable which takes the value of 1 for any terrorist attack happening in financial cities zero otherwise, Large city is a dummy variable which takes the value of 1 for any terrorist attack happening in large cities zero otherwise, FATA is a dummy variable which takes the value of 1 for any terrorist attack happening in FATA zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.8: Terrorism Location and Stock Market using GARCH (1,1)

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Mean Equation				
Ret _{t-1}	0.180083***	0.025632	-0.01285	0.05151
Karachi	0.000641	0.000627	-0.00015	0.001395
Financial City	0.00186	0.004076	0.001694	0.002822
Large City	-0.00045	0.00059	0.000171	0.00121
FATA	0.000731	0.000474	0.001212	0.001154
Gilgit	-0.00035	0.011496	-0.00153	0.00368
Kashmir	0.002936	0.010497	0.001233	0.005076
Other Locations	0.000742*	0.000411	0.000755	0.001026
Variance Equation				
C	0.00000835***	0.00000135	0.0001100	0.0000214***
RESID(-1)^2	0.16549800***	0.02054900	0.1301850	0.0191330***
GARCH(-1)	0.74906700***	0.02607500	0.5437510	0.0810570***
Ret _{t-1}	-	-	-	-
Karachi	0.00163800***	0.00017900	-0.0006900	0.0005850
Financial City	0.00000788*	0.00000413	-0.0000477	0.0000170***
Large City	0.00004070***	0.00001500	-0.0000953	0.0000375**
FATA	0.00000262	0.00000383	-0.0000420	0.0000154***
Gilgit	0.00000258	0.00000297	-0.0000213	0.0000143
Kashmir	-0.00003520	0.00002860	-0.0001790	0.0000272***
Kashmir	0.00001820	0.00007270	-0.0002010	0.0000237***
Other Locations	0.00000007	0.00000210	-0.0000391	0.0000125***

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return. Karachi is a dummy variable which takes the value of 1 for any terrorist attack happening in Karachi zero otherwise, Financial city is a dummy variable which takes the value of 1 for any terrorist attack happening in financial cities zero otherwise, Large city is a dummy variable which takes the value of 1 for any terrorist attack happening in large cities zero otherwise, FATA is a dummy variable which takes the value of 1 for any terrorist attack happening in FATA zero otherwise, Other cities is a dummy variable which takes value of 1 for any terrorist attack happening in the cities other than previously mentioned zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.9: Terrorism Events and Stock Market during Islamic Calendar Months using OLS Regression (Event Day/ POS Day1)

Variable	Event Day Effect				POS Day 1 Effect			
	Conventional		Islamic		Conventional		Islamic	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.101611***	0.032363	-0.045386	0.085428	0.101752***	0.032475	-0.0417	0.083714
NEG1	0.000052	0.000449	-0.000104	0.000534	-0.000012	0.000445	-0.00022	0.000534
NEG2	0.000741*	0.000442	0.001055*	0.000556	0.000723	0.000444	0.001045*	0.00056
NEG3	0.000594	0.000459	0.000742	0.000555	0.000505	0.000452	0.000654	0.00055
EVENTDAY	-0.001318	0.001132	-0.001420	0.001273	-0.000470	0.000459	-0.00073	0.000557
POS1	0.000123	0.000450	0.000349	0.000546	0.000730	0.000998	0.000526	0.001081
POS2	0.000185	0.000453	-0.000206	0.000562	0.000142	0.000448	-0.00027	0.000566
POS3	0.000278	0.000443	0.000020	0.000534	0.000182	0.000439	-0.00012	0.000535
MUH	0.000896	0.000931	0.000824	0.001044	0.001331*	0.000807	0.001285	0.000935
SAF	0.000119	0.000909	0.000168	0.001018	-0.000296	0.000922	0.000018	0.001071
SHA	0.000100	0.000965	0.001329	0.001070	0.000219	0.000974	0.001570	0.001161
SHW	-0.000137	0.001074	-0.000292	0.001165	-0.000436	0.001087	0.000130	0.001186
RA	0.001434	0.001018	0.002711**	0.001065	0.001070	0.001044	0.002752**	0.001303
RAJ	0.001153	0.000852	0.001203	0.000894	0.001736*	0.000924	0.001892*	0.001006
RAM	-0.000087	0.001227	-0.000106	0.001247	0.001019	0.001383	0.001234	0.001481
DQ	-0.000258	0.001099	0.000071	0.001207	0.000050	0.001102	0.000340	0.001260
RTH	-0.000620	0.000972	-0.000318	0.001020	-0.000343	0.001001	-0.000012	0.001053
JA	-0.000255	0.000941	0.000034	0.001046	0.000250	0.000960	0.001459	0.001116
JTH	0.000306	0.001361	0.001881	0.002703	0.000500	0.001240	-0.000660	0.002542

Continue Table 6.9: Terrorism Events and Stock Market during Islamic Calendar Months using OLS Regression (Event Day/ POS Day1)

Variable	Event Day Effect				POS Day 1 Effect			
	Conventional		Islamic		Conventional		Islamic	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
MUH*Day Dummy	0.002109	0.001688	0.002137	0.001885	-0.000294	0.001722	0.000335	0.001918
SAF*Day Dummy	0.000364	0.001725	0.000942	0.001950	0.000211	0.001609	0.000834	0.001793
SHA*Day Dummy	0.001093	0.001727	0.000678	0.001913	-0.000304	0.001640	-0.000296	0.001778
SHW*Day Dummy	0.000765	0.002329	0.001763	0.002429	0.000474	0.002223	0.000044	0.002301
RA*Day Dummy	0.000052	0.001681	-0.001600	0.002232	-0.000245	0.001609	-0.002204	0.002011
RAJ*Day Dummy	0.000180	0.002022	0.000068	0.002211	-0.002475	0.001836	-0.002203	0.001968
RAM*Day Dummy	0.002208	0.002262	0.003626	0.002392	-0.001532	0.002111	0.000103	0.002204
DQ*Day Dummy	0.000071	0.002159	-0.000293	0.002435	-0.001919	0.002069	-0.001487	0.002222
RTH*Day Dummy	0.001747	0.001833	0.001696	0.001934	-0.000023	0.001736	0.000548	0.001784
JA*Day Dummy	0.000994	0.001881	0.002249	0.001950	-0.001435	0.001819	-0.001815	0.001817
JTH*Day Dummy	0.001281	0.002082	-0.002553	0.003871	-0.000289	0.002083	0.002841	0.003506
Durbin Watson test	2.004009		1.996369		2.001322		1.99955	
DW								
Breusch–Pagan test prob	0		0		0		0	
Serial Correlation LM	0.4217		0.3884		0.7608		1	
Test prob.								

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return, Neg_1 indicates the one day before the event day, Neg_2 indicates two days before the event day, Neg_3 indicates three days before the event, Event day indicates the day event happened, Pos_1 indicates one day after the event, Pos_2 indicates two days after the event, Pos_3 indicates three days after the event, MUH is a dummy variable which takes value of 1 for month of Muḥarram zero otherwise, SAF is a dummy variable which takes value of 1 for month of Safar zero otherwise, SHA is a dummy variable which takes value of 1 for month of Sha'aban zero otherwise, SHW is a dummy variable which takes value of 1 for month of Shawwal zero otherwise, RA is a dummy variable which takes value of 1 for month of Rabi' al-awal zero otherwise, RAJ is a dummy variable which takes value of 1 for month of Rajab zero otherwise, RAM is a dummy variable which takes value of 1 for month of Ramaḍan zero otherwise, DQ is a dummy variable which

takes value of 1 for month of Duh al-Qidah zero otherwise, RTH is a dummy variable which takes value of 1 for month of Rabi' al-thani zero otherwise, JA is a dummy variable which takes value of 1 for month of Jumada al-awal zero otherwise, JTH is a dummy variable which takes value of 1 for month of Jumada al-thani zero otherwise, Day dummy indicates four dummy variables for event day, post day one, post day two and post day 3. Day dummy for event day takes value of 1 event day zero otherwise, Day dummy for post day event one takes value of 1 for one day after the event zero otherwise, Day dummy for post day event two takes value of 1 for one day after the event zero otherwise, Day dummy for post day event three takes value of 1 for one day after the event zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.



Table 6.10: Terrorism Events and Stock Market during Islamic Calendar Months using OLS Regression (POS Day 2/ POS Day3)

Variable	POS Day 2 Effect				POS Day 3 Effect			
	Conventional		Islamic		Conventional		Islamic	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.102997***	0.032304	-0.042146	0.084995	0.104439***	0.032184	-0.041770	0.085266
NEG1	0.00011	0.000444	-0.000116	0.000529	0.000013	0.000444	-0.000200	0.000529
NEG2	0.000763*	0.000444	0.001057**	0.000560	0.000687	0.000442	0.001002*	0.000555
NEG3	0.000548	0.000452	0.000671	0.000548	0.000532	0.000456	0.000670	0.000556
EVENTDAY	-0.00046	0.000455	-0.000715	0.000550	-0.000536	0.000457	-0.000780	0.000547
POS1	0.000101	0.000444	0.000233	0.000545	0.000097	0.000445	0.000261	0.000538
POS2	-0.00118	0.001097	-0.000949	0.001133	0.000082	0.000451	-0.000272	0.000581
POS3	0.000249	0.000441	-0.000069	0.000553	0.001090	0.001031	0.000701	0.001063
MUH	0.002045**	0.000829	0.001989**	0.000986	0.001897**	0.000903	0.001534	0.000991
SAF	0.000294	0.000878	0.000612	0.001050	0.000376	0.000889	0.000832	0.001027
SHA	-0.00065	0.001027	0.000613	0.001176	0.000581	0.000983	0.001808	0.001127
SHW	0.000713	0.000992	0.000773	0.001134	-0.001217	0.001183	-0.001350	0.001230
RA	0.000921	0.001096	0.002277*	0.001281	0.001612	0.000981	0.002118*	0.001182
RAJ	0.000544	0.000922	0.000731	0.001023	0.001123	0.000935	0.001006	0.000978
RAM	-0.0008	0.001366	-0.000323	0.001456	0.001031	0.001462	0.001517	0.001501
DQ	-0.0002	0.001244	0.000367	0.001325	-0.000540	0.001133	-0.000056	0.001265
RTH	-0.00091	0.001075	0.000316	0.001129	0.001370	0.001056	0.001720	0.001107
JA	0.000134	0.001057	0.000751	0.001096	-0.000271	0.001094	0.000561	0.001092
JTH	0.000269	0.001224	0.000404	0.002374	-0.000246	0.001259	0.001050	0.002617

Continue Table 6.10: Terrorism Events and Stock Market during Islamic Calendar Months using OLS Regression (POS Day 2/ POS Day3)

Variable	POS Day 2 Effect				POS Day 3 Effect			
	Conventional		Islamic		Conventional		Islamic	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
MUH*Day Dummy	-0.00054	0.001782	-0.000789	0.001915	-0.002006	0.001647	-0.000851	0.001830
SAF*Day Dummy	0.000459	0.001686	0.000193	0.001822	-0.001600	0.001643	-0.001638	0.001756
SHA*Day Dummy	0.003226*	0.001675	0.002529	0.001788	-0.001241	0.001678	-0.001299	0.001808
SHW*Day Dummy	-0.00114	0.002356	-0.001012	0.002367	0.002345	0.002047	0.003529*	0.002115
RA*Day Dummy	0.001772	0.001627	-0.000281	0.002031	-0.001703	0.001642	-0.001196	0.002037
RAJ*Day Dummy	0.002359	0.001872	0.001660	0.001942	-0.001024	0.001857	-0.000349	0.001968
RAM*Day Dummy	0.004497**	0.002161	0.004597**	0.002207	-0.001755	0.002026	-0.001084	0.002155
DQ* Day Dummy	0.000447	0.001981	-0.000782	0.002221	-0.000465	0.002066	-0.000901	0.002199
RTH*Day Dummy	0.00288	0.00176	0.000628	0.001795	-0.00381**	0.001723	-0.00360**	0.001746
JA*Day Dummy	0.000553	0.001808	0.000768	0.001875	-0.000306	0.001749	-0.000064	0.001817
JTH*Day Dummy	0.00192	0.002133	0.001102	0.003884	0.001377	0.002077	-0.001715	0.003782
Durbin Watson test	1.996118		1.998189		2.001405		1.99921	
DW								
Breusch–Pagan test prob	0		0		0		0	
Serial Correlation LM	0.6633		0.7122		0.7698		0.8847	
Test prob.								

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return, Neg_1 indicates the one day before the event day, Neg_2 indicates two days before the event day, Neg_3 indicates three days before the event, Event day indicates the day event happened, Pos_1 indicates one day after the event, Pos_2 indicates two days after the

event, Pos₃ indicates three days after the event, MUH is a dummy variable which takes value of 1 for month of Muḥarram zero otherwise, SAF is a dummy variable which takes value of 1 for month of Safar zero otherwise, SHA is a dummy variable which takes value of 1 for month of Sha'aban zero otherwise, SHW is a dummy variable which takes value of 1 for month of Shawwal zero otherwise, RA is a dummy variable which takes value of 1 for month of Rabi' al-awal zero otherwise, RAJ is a dummy variable which takes value of 1 for month of Rajab zero otherwise, RAM is a dummy variable which takes value of 1 for month of Ramaḍan zero otherwise, DQ is a dummy variable which takes value of 1 for month of Duh al-Qidah zero otherwise, RTH is a dummy variable which takes value of 1 for month of Rabi' al-thani zero otherwise, JA is a dummy variable which takes value of 1 for month of Jumada al-awal zero otherwise, JTH is a dummy variable which takes value of 1 for month of Jumada al-thani zero otherwise, Day dummy indicates four dummy variables for event day, post day one, post day two and post day 3. Day dummy for event day takes value of 1 event day zero otherwise, Day dummy for post day event one takes value of 1 for one day after the event zero otherwise, Day dummy for post day event two takes value of 1 for one day after the event zero otherwise, Day dummy for post day event three takes value of 1 for one day after the event zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.



Terrorism Events with at least 7 Causalities

The following Tables provides the impact of terrorism events on the conventional and Islamic equity market returns based on the sample of events with at least 7 causalities.

Table 6.11: Terrorism Events and Stock Market using OLS Regression

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.10738***	0.03212	-0.03688	0.084345
Neg1	0.00083	0.00054	0.000767	0.000605
Neg2	0.00085	0.00052	0.000282	0.000686
Neg3	0.00066	0.00056	0.001184*	0.000702
Event day	-0.00017	0.00057	-0.00017	0.000659
Pos1	0.00024	0.00055	0.001098	0.000695
Pos2	0.00081	0.00054	0.000309	0.00067
Pos3	0.00013	0.00052	0.000451	0.000578
Durbin Watson test	2.002544		1.998683	
DW				
Breusch–Pagan test prob.	0		0	
Serial Correlation	1		1	
LM Test prob.				

Note: Ret_{t-1} indicate the one period lagged return, Neg₁ indicates the one day before the event day, Neg₂ indicates two days before the event day, Neg₃ indicates three days before the event, Event day indicates the day event happened, Pos₁ indicates one day after the event, Pos₂ indicates two days after the event, Pos₃ indicates three days after the event and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.12: Terrorism Events and Stock Market using GARCH (1,1)

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Mean Equation				
Ret _{t-1}	0.169336***	0.025781	-0.01644	0.04185
Neg1	0.000583	0.00045	0.00000	0.00076
Neg2	0.000686	0.000433	0.00160**	0.00080
Neg3	0.000507	0.000426	-0.00026	0.00080
Event day	0.00068	0.000466	-0.00048	0.00079
Pos1	-0.00034	0.000404	0.00233***	0.00084
Pos2	0.00106**	0.000462	0.00042	0.00074
Pos3	-0.00046	0.000448	0.00020	0.00082
Variance Equation				
C	0.000008***	0.000001	0.00010***	0.00000
RESID(-1)^2	0.161768***	0.018010	0.15245***	0.01915
GARCH(-1)	0.771416***	0.020171	0.53776***	0.00768
Ret _{t-1}	-0.001442***	0.000146	-0.00150***	0.00047
Neg1	0.000001	0.000005	-0.00002*	0.00001
Neg2	-0.000002	0.000005	-0.00003***	0.00001
Neg3	-0.000002	0.000004	-0.00002**	0.00001
Event day	0.000009	0.000006	-0.00001	0.00001
Pos1	-0.000014***	0.000005	0.00001	0.00001
Pos2	0.000015***	0.000005	-0.00004***	0.00001
Pos3	-0.000002	0.000004	-0.00002***	0.00001

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return, Neg₁ indicates the one day before the event day, Neg₂ indicates two days before the event day, Neg₃ indicates three days before the event, Event day indicates the day event happened, Pos₁ indicates one day after the event, Pos₂ indicates two days after the event, Pos₃ indicates three days after the event and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.13: Terrorism Target Types and Stock Market using OLS Regression

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.111359***	0.032529	-0.033839	0.084926
Armed Forces	0.000581	0.000743	0.000523	0.000909
Business	-0.005334**	0.002707	-0.004279**	0.002102
Educational Ins.	-0.006905	0.006039	-0.011095*	0.005936
Government	0.000143	0.00175	0.000742	0.001943
Private Citizen	0.001734*	0.000971	0.002268**	0.001065
Religious Figures	0.000896	0.001628	-0.00039	0.002611
Other Attacks	-0.000361	0.00134	-0.0003	0.001422
Durbin Watson test	2.013794		2.007267	
DW				
Breusch–Pagan test prob.	0		0	
Serial Correlation	1		1	
LM Test prob.				

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return. Armed Forces is a dummy variable which takes value of 1 for any terrorist attack where target of attack is armed forces zero otherwise, Business is a dummy variable which takes value of 1 for any terrorist attack where target of attack is business places zero otherwise, Educational Institutes is a dummy variable which takes value of 1 for any terrorist attack where target of attack is educational institute zero otherwise, Government is a dummy variable which takes value of 1 for any terrorist attack where target of attack is government offices zero otherwise, Private citizens is a dummy variable which takes value of 1 for any terrorist attack where target of attack is private citizen zero otherwise, Religious figures is a dummy variable which takes value of 1 for any terrorist attack where target of attack is any religious figure or institute zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.14: Terrorism Target Types and Stock Market using GARCH (1,1)

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Mean Equation				
Ret _{t-1}	0.175699***	0.025283	0.172304***	0.028254
Armed Forces	0.000928	0.000661	0.000821	0.000631
Business	-0.00065	0.001653	0.001729	0.011149
Educational Ins.	-0.01236**	0.005936	-0.01702***	0.00645
Government	0.00196	0.001387	0.001898	0.0015
Private Citizen	0.00192**	0.000788	0.002557***	0.000946
Religious Figures	-0.0006	0.001897	-0.00105	0.001769
Other Attacks	-0.00032	0.000942	-0.00018	0.000979
Variance Equation				
C	0.000008***	0.000001	0.00003***	0.00000
RESID(-1)^2	0.147840***	0.016876	0.26269***	0.01861
GARCH(-1)	0.781168***	0.019415	0.50731***	0.03556
Ret _{t-1}	-0.001484***	0.000153	-0.00263***	0.00029
Armed Forces	-0.000001	0.000003	-0.00002***	0.00001
Business	-0.000008	0.000014	0.00043***	0.00009
Educational Ins.	0.000053	0.000060	0.00007	0.00016
Government	-0.000007	0.000008	0.00000	0.00002
Private Citizen	0.000001	0.000005	0.00001	0.00001
Religious Figures	0.000019**	0.000009	0.00003	0.00002
Other Attacks	0.000008	0.000005	0.00000	0.00001

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return. Armed Forces is a dummy variable which takes value of 1 for any terrorist attack where target of attack is armed forces zero otherwise, Business is a dummy variable which takes value of 1 for any terrorist attack where target of attack is business places zero otherwise, Educational Institutes is a dummy variable which takes value of 1 for any terrorist attack where target of attack is educational institute zero otherwise, Government is a dummy variable which takes value of 1 for any terrorist attack where target of attack is government offices zero otherwise, Private citizens is a dummy variable which takes value of 1 for any terrorist attack where target of attack is private citizen zero otherwise, Religious figures is a dummy variable which takes value of 1 for any terrorist attack where target of attack is any religious figure or institute zero otherwise, Other attacks is a dummy variable which takes value of 1 for any terrorist attack other than previously mentioned zero otherwise, and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.15: Terrorism Location and Stock Market using OLS Regression

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.113609***	0.032367	-0.03260	0.08490
Karachi	0.001878	0.002391	0.00344	0.00224
Financial City	-0.000444	0.003002	0.00119	0.00220
Large City	-0.001413	0.001225	-0.00236	0.00154
FATA	0.001116	0.000921	0.00090	0.00120
Kashmir	-0.004554*	0.002411	-0.00228	0.00240
Gilgit	0.003531***	0.000232	0.00022	0.00050
Other Locations	0.000779	0.000736	0.00121	0.00079
Durbin Watson test	2.006181		2.001158	
DW				
Breusch–Pagan test prob.	0		0	
Serial Correlation	1		1	
LM Test prob.				

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return. Karachi is a dummy variable which takes the value of 1 for any terrorist attack happening in Karachi zero otherwise, Financial city is a dummy variable which takes the value of 1 for any terrorist attack happening in financial cities zero otherwise, Large city is a dummy variable which takes the value of 1 for any terrorist attack happening in large cities zero otherwise, FATA is a dummy variable which takes the value of 1 for any terrorist attack happening in FATA zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.16: Terrorism Location and Stock Market using GARCH (1,1)

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Mean Equation				
Ret _{t-1}	0.11647***	0.04313	-0.01289	0.05220
Karachi	0.00203	0.00220	0.00280	0.00255
Financial City	-0.00060	0.00282	-0.00009	0.00180
Large City	-0.00022	0.00148	-0.00129	0.00167
FATA	0.00083	0.00122	0.00174	0.00151
Kashmir	-0.00474	1433.32	-0.00194	20.98422
Gilgit	0.00354	9.72047	0.00031	7.30820
Other	0.00122	0.00113	0.00169	0.00156
Variance Equation				
C	0.000070***	0.000015	0.00011***	0.00002
RESID(-1)^2	0.126251***	0.041666	0.12624***	0.02110
GARCH(-1)	0.552458***	0.099687	0.55293***	0.07228
Ret _{t-1}	-0.001264**	0.000545	-0.00106	0.00075
Karachi	-0.000030	0.000027	-0.00011***	0.00001
Financial City	-0.000058*	0.000031	-0.00016***	0.00002
Large City	-0.000036**	0.000016	-0.00008***	0.00002
FATA	-0.000044***	0.000010	-0.00008***	0.00001
Kashmir	-0.000134	0.000527	-0.00015	0.00091
Gilgit	-0.000045	0.000214	-0.00020	0.00034
Other	-0.000034**	0.000013	-0.00003	0.00002

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return. Karachi is a dummy variable which takes the value of 1 for any terrorist attack happening in Karachi zero otherwise, Financial city is a dummy variable which takes the value of 1 for any terrorist attack happening in financial cities zero otherwise, Large city is a dummy variable which takes the value of 1 for any terrorist attack happening in large cities zero otherwise, FATA is a dummy variable which takes the value of 1 for any terrorist attack happening in FATA zero otherwise, Other cities is a dummy variable which takes value of 1 for any terrorist attack happening in the cities other than previously mentioned zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.17: Terrorism Events and Stock Market during Islamic Calendar Months using OLS Regression (Event Day/ POS Day1)

Variable	Event Day Effect				POS Day 1 Effect			
	Conventional		Islamic		Conventional		Islamic	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.09738***	0.03194	-0.04620	0.08524	0.09846***	0.03254	-0.04318	0.08012
NEG1	0.00061	0.00055	0.00048	0.00063	0.00058	0.00055	0.00045	0.00062
NEG2	0.00060*	0.00053	-0.00016	0.00070	0.00065	0.00053	0.00002	0.00070
NEG3	0.00046	0.00057	0.00083	0.00071	0.00043	0.00057	0.00082	0.00079
EVENTDAY	-0.00159	0.00142	-0.00233	0.00164	-0.00039	0.00059	-0.00056	0.00069
POS1	0.00000	0.00056	0.00079	0.00071	-0.00009	0.00139	-0.00029	0.00149
POS2	0.00056	0.00055	-0.00012	0.00068	0.00055	0.00055	-0.00010	0.00070
POS3	-0.00011	0.00054	0.00005	0.00061	-0.00016	0.00054	0.00010	0.00064
MUH	0.00149**	0.00075	0.00129	0.00084	0.00170**	0.00076	0.00170**	0.00075
SAF	0.00057	0.00065	0.00076	0.00074	-0.00003	0.00070	0.00029	0.00092
SHA	0.00058	0.00076	0.00155*	0.00083	0.00069	0.00079	0.00194*	0.00099
SHW	-0.00047	0.00102	-0.00058	0.00106	-0.00103	0.00105	-0.00074	0.00108
RA	0.00116	0.00083	0.00237**	0.00101	0.00167**	0.00079	0.00228**	0.00109
RAJ	0.00092	0.00081	0.00084	0.00086	0.00138*	0.00080	0.00133*	0.00075
RAM	0.00104	0.00113	0.00143	0.00115	0.00141	0.00114	0.00192	0.00120
DQ	0.00065	0.00089	0.00084	0.00098	-0.00012	0.00093	-0.00003	0.00118
RTH	-0.00021	0.00085	0.00014	0.00086	0.00038	0.00084	0.00063	0.00091
JA	-0.00042	0.00081	0.00026	0.00082	-0.00015	0.00083	0.00063	0.00098
JTH	0.00082	0.00110	0.00074	0.00236	0.00064	0.00106	-0.00040	0.00158

Continue Table 6.17: Terrorism Events and Stock Market during Islamic Calendar Months using OLS Regression (Event Day/ POS Day1)

Variable	Event Day Effect				POS Day 1 Effect			
	Conventional		Islamic		Conventional		Islamic	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
MUH*Day Dummy	0.00205	0.00219	0.00338	0.00257	-0.00047	0.00209	-0.00035	0.00216
SAF*Day Dummy	-0.00051	0.00246	0.00061	0.00279	0.00194	0.00214	0.00244	0.00206
SHA*Day Dummy	0.00093	0.00222	0.00169	0.00250	-0.00059	0.00206	-0.00075	0.00209
SHW*Day Dummy	0.00392	0.00285	0.00589	0.00294	0.00556**	0.00243	0.00564	0.00251
RA*Day Dummy	0.00223	0.00195	-0.00038	0.00285	-0.00133	0.00217	-0.00091	0.00231
RAJ*Day Dummy	0.00298	0.00230	0.00398	0.00246	-0.00090	0.00247	0.00000	0.00258
RAM*Day Dummy	-0.00009	0.00262	0.00156	0.00284	-0.00326	0.00242	-0.00198	0.00296
DQ* Day Dummy	-0.00453	0.00318	-0.00404	0.00356	-0.00083	0.00298	0.00045	0.00332
RTH*Day Dummy	0.00239	0.00215	0.00263	0.00234	-0.00105	0.00216	-0.00028	0.00228
JA*Day Dummy	0.00512**	0.00245	0.00616	0.00261	0.00215	0.00227	0.00267	0.00213
JTH*Day Dummy	0.00108	0.00254	0.00151	0.00355	0.00098	0.00275	0.00638	0.00568
Durbin Watson test	2.002245		1.999413		1.992372		1.990193	
DW								
Breusch–Pagan test	0		0		0		0	
prob								
Serial Correlation	0.7833		1		0.2738		0.0346	
LM Test prob.								

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return, Neg_1 indicates the one day before the event day, Neg_2 indicates two days before the event day, Neg_3 indicates three days before the event, Event day indicates the day event happened, Pos_1 indicates one day after the event, Pos_2 indicates two days after the event, Pos_3 indicates three days after the event, MUH is a dummy variable which takes value of 1 for month of Muḥarram zero otherwise, SAF is a dummy variable which takes

value of 1 for month of Safar zero otherwise, SHA is a dummy variable which takes value of 1 for month of Sha'aban zero otherwise, SHW is a dummy variable which takes value of 1 for month of Shawwal zero otherwise, RA is a dummy variable which takes value of 1 for month of Rabi' al-awal zero otherwise, RAJ is a dummy variable which takes value of 1 for month of Rajab zero otherwise, RAM is a dummy variable which takes value of 1 for month of Ramadan zero otherwise, DQ is a dummy variable which takes value of 1 for month of Duh al-Qidah zero otherwise, RTH is a dummy variable which takes value of 1 for month of Rabi' al-thani zero otherwise, JA is a dummy variable which takes value of 1 for month of Jumada al-awal zero otherwise, JTH is a dummy variable which takes value of 1 for month of Jumada al-thani zero otherwise, Day dummy indicates four dummy variables for event day, post day one, post day two and post day 3. Day dummy for event day takes value of 1 event day zero otherwise, Day dummy for post day event one takes value of 1 for one day after the event zero otherwise, Day dummy for post day event two takes value of 1 for one day after the event zero otherwise, Day dummy for post day event three takes value of 1 for one day after the event zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.



Table 6.18: Terrorism Events and Stock Market during Islamic Calendar Months using OLS Regression (POS Day 2/ POS Day3)

Variable	POS Day 2 Effect				POS Day 3 Effect			
	Conventional		Islamic		Conventional		Islamic	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.09846***	0.03254	-0.03707	0.08419	0.10727***	0.03250	-0.03855	0.08501
NEG1	0.00058	0.00055	0.00035	0.00064	0.00065	0.00055	0.00041	0.00064
NEG2	0.00065	0.00053	-0.00010	0.00070	0.00062	0.00053	-0.00008	0.00070
NEG3	0.00043	0.00057	0.00072	0.00072	0.00027	0.00057	0.00080	0.00071
EVENTDAY	-0.00039	0.00059	-0.00056	0.00069	-0.00028	0.00059	-0.00055	0.00069
POS1	-0.00009	0.00139	0.00071	0.00071	-0.00002	0.00056	0.00072	0.00070
POS2	0.00055	0.00055	0.00065	0.00172	0.00051	0.00175	-0.00005	0.00069
POS3	-0.00016	0.00054	0.00005	0.00062	-0.00016	0.00054	0.00089	0.00141
MUH	0.00170***	0.00076	0.00140	0.00086	0.00163**	0.00076	0.00145*	0.00086
SAF	-0.00003	0.00070	0.00034	0.00080	0.00011	0.00070	0.00092	0.00078
SHA	0.00069	0.00079	0.00122	0.00090	0.00028	0.00081	0.00159*	0.00087
SHW	-0.00103	0.00105	0.00115	0.00100	0.00126	0.00092	-0.00072	0.00110
RA	0.00167**	0.00079	0.00171	0.00109	0.00124	0.00085	0.00203*	0.00095
RAJ	0.00138*	0.00080	0.00147*	0.00084	0.00139*	0.00080	0.00114	0.00086
RAM	0.00141	0.00114	0.00092	0.00114	0.00030	0.00111	0.00157	0.00116
DQ	-0.00012	0.00093	-0.00027	0.00111	-0.00048	0.00102	0.00006	0.00108
RTH	0.00038	0.00084	0.00064	0.00090	0.00032	0.00089	0.00102	0.00087
JA	-0.00015	0.00083	0.00078	0.00081	0.00017	0.00081	0.00083	0.00084
JTH	0.00064	0.00106	0.00131	0.00213	0.00033	0.00111	0.00021	0.00231

Continue Table 6.18: Terrorism Events and Stock Market during Islamic Calendar Months using OLS Regression (POS Day 2/ POS Day3)

Variable	POS Day 2 Effect				POS Day 3 Effect			
	Conventional		Islamic		Conventional		Islamic	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
MUH*Day Dummy	-0.00047	0.00209	0.00009	0.00246	-0.00010	0.00240	-0.00048	0.00228
SAF*Day Dummy	0.00194	0.00214	0.00096	0.00231	0.00116	0.00228	-0.00333	0.00238
SHA*Day Dummy	-0.00059	0.00206	0.00076	0.00225	0.00106	0.00220	-0.00116	0.00222
SHW*Day Dummy	0.00556**	0.00243	-0.00530	0.00337	-0.00602*	0.00337	0.00352	0.00256
RA*Day Dummy	-0.00133	0.00217	0.00041	0.00239	0.00067	0.00213	-0.00138	0.00297
RAJ*Day Dummy	-0.00090	0.00247	-0.00226	0.00269	-0.00105	0.00264	-0.00069	0.00249
RAM*Day Dummy	-0.00326	0.00242	0.00174	0.00302	0.00235	0.00298	-0.00185	0.00260
DQ* Day Dummy	-0.00083	0.00298	0.00052	0.00264	0.00133	0.00237	-0.00183	0.00270
RTH*Day Dummy	-0.00105	0.00216	-0.00173	0.00223	-0.00088	0.00226	-0.00354*	0.00209
JA*Day Dummy	0.00215	0.00227	0.00024	0.00283	-0.00004	0.00273	-0.00045	0.00239
JTH*Day Dummy	0.00098	0.00275	-0.00375	0.00507	0.00252	0.00253	0.00157	0.00314
Durbin Watson test	1.992372		1.993191		1.994639		2.000036	
DW								
Breusch–Pagan test	0		0		0		0	
prob								
Serial Correlation	0.2738		0.0864		0.4656		1	
LM Test prob.								

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return, Neg_1 indicates the one day before the event day, Neg_2 indicates two days before the event day, Neg_3 indicates three days before the event, Event day indicates the day event happened, Pos_1 indicates one day after the event, Pos_2 indicates two days after the event, Pos_3 indicates three days after the event, MUH is a dummy variable which takes value of 1 for month of Muharram zero otherwise, SAF is a dummy variable which takes

value of 1 for month of Safar zero otherwise, SHA is a dummy variable which takes value of 1 for month of Sha'aban zero otherwise, SHW is a dummy variable which takes value of 1 for month of Shawwal zero otherwise, RA is a dummy variable which takes value of 1 for month of Rabi' al-awal zero otherwise, RAJ is a dummy variable which takes value of 1 for month of Rajab zero otherwise, RAM is a dummy variable which takes value of 1 for month of Ramadan zero otherwise, DQ is a dummy variable which takes value of 1 for month of Duh al-Qidah zero otherwise, RTH is a dummy variable which takes value of 1 for month of Rabi' al-thani zero otherwise, JA is a dummy variable which takes value of 1 for month of Jumada al-awal zero otherwise, JTH is a dummy variable which takes value of 1 for month of Jumada al-thani zero otherwise, Day dummy indicates four dummy variables for event day, post day one, post day two and post day 3. Day dummy for event day takes value of 1 event day zero otherwise, Day dummy for post day event one takes value of 1 for one day after the event zero otherwise, Day dummy for post day event two takes value of 1 for one day after the event zero otherwise, Day dummy for post day event three takes value of 1 for one day after the event zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.



Terrorism Events with at least 10 Causalities

The following Tables provides the impact of terrorism events on the conventional and Islamic equity market returns based on the sample of events with at least 10 causalities.

Table 6.19: Terrorism Events and Stock Market using OLS Regression

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.10819***	0.03209	-0.03669	0.084448
Neg1	0.00096	0.00061	0.001346	0.000668
Neg2	0.00097	0.00059	0.00029	0.00085
Neg3	0.00046	0.00069	0.001009	0.000879
Event day	-0.00003	0.00063	0.00031	0.000711
Pos1	0.00036	0.00065	0.001254	0.000862
Pos2	0.00095	0.00065	0.00027	0.00085
Pos3	0.00076	0.00060	0.000837	0.000625
Durbin Watson test DW	2.004348		1.999591	
Breusch–Pagan test prob.	0		0	
Serial Correlation LM Test prob.	1		1	

Note: Ret_{t-1} indicate the one period lagged return, Neg₁ indicates the one day before the event day, Neg₂ indicates two days before the event day, Neg₃ indicates three days before the event, Event day indicates the day event happened, Pos₁ indicates one day after the event, Pos₂ indicates two days after the event, Pos₃ indicates three days after the event and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.20: Terrorism Events and Stock Market using GARCH (1,1)

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Mean Equation				
Ret _{t-1}	0.164909***	0.025182	-0.03406	0.052406
Neg1	0.000799	0.000538	0.00147	0.001063
Neg2	0.000880*	0.000523	0.000644	0.001071
Neg3	0.000299	0.000559	0.000512	0.001192
Event day	0.000953*	0.000532	0.000706	0.001139
Pos1	0.000104	0.000474	0.001556	0.00113
Pos2	0.000917*	0.000533	0.000867	0.001014
Pos3	0.000088	0.000615	0.001021	0.001158
Variance Equation				
C	0.000008***	0.000001	0.00012***	0.00002
RESID(-1)^2	0.147411***	0.016900	0.14487***	0.02486
GARCH(-1)	0.776525***	0.020860	0.58412***	0.05620
Ret _{t-1}	-0.001461***	0.000144	-0.00136*	0.00074
Neg1	-0.000001	0.000007	-0.00003**	0.00001
Neg2	-0.000008	0.000006	-0.00004***	0.00001
Neg3	0.000002	0.000005	-0.00003	0.00002
Event day	0.000004	0.000006	-0.00002	0.00002
Pos1	-0.000007	0.000005	-0.00001	0.00001
Pos2	0.000015***	0.000005	-0.00004***	0.00001
Pos3	0.000005	0.000006	-0.00004*	0.00002

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return, Neg₁ indicates the one day before the event day, Neg₂ indicates two days before the event day, Neg₃ indicates three days before the event, Event day indicates the day event happened, Pos₁ indicates one day after the event, Pos₂ indicates two days after the event, Pos₃ indicates three days after the event and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.21: Terrorism Target Types and Stock Market using OLS Regression

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.111938***	0.032191	-0.033929	0.084933
Armed Forces	0.002023**	0.000875	0.002748***	0.001023
Business	-0.001783	0.00241	-0.001845	0.002139
Educational Ins.	-0.01331***	0.003516	-0.016543***	0.004536
Government	-0.000236	0.002161	0.000238	0.002411
Private Citizen	0.001113	0.001084	0.001141	0.001147
Religious Figures	0.00114	0.001752	0.001876	0.001876
Other Attacks	-0.000416	0.00182	-0.000366	0.001886
Durbin Watson test	2.015462		2.007574	
DW				
Breusch–Pagan test prob.	0		0	
Serial Correlation	1		1	
LM Test prob.				

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return. Armed Forces is a dummy variable which takes value of 1 for any terrorist attack where target of attack is armed forces zero otherwise, Business is a dummy variable which takes value of 1 for any terrorist attack where target of attack is business places zero otherwise, Educational Institutes is a dummy variable which takes value of 1 for any terrorist attack where target of attack is educational institute zero otherwise, Government is a dummy variable which takes value of 1 for any terrorist attack where target of attack is government offices zero otherwise, Private citizens is a dummy variable which takes value of 1 for any terrorist attack where target of attack is private citizen zero otherwise, Religious figures is a dummy variable which takes value of 1 for any terrorist attack where target of attack is any religious figure or institute zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.22: Terrorism Target Types and Stock Market using GARCH (1,1)

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Mean Equation				
Ret _{t-1}	0.177199***	0.024886	0.156210***	0.026040
Armed Forces	0.001786**	0.000908	0.002427**	0.001041
Business	0.001027	0.001862	0.001615	0.001904
Educational Ins.	-0.01513***	0.005865	-0.016767***	0.005871
Government	0.002124	0.001694	0.001364	0.001938
Private Citizen	0.001703	0.001277	0.001663	0.001198
Religious Figures	-0.0004	0.002394	0.000330	0.002031
Other Attacks	-0.00017	0.0011	0.000077	0.001036
Variance Equation				
C	0.000008***	0.000001	0.000008***	0.000001
RESID(-1)^2	0.140393***	0.016375	0.144341***	0.009833
GARCH(-1)	0.782639***	0.020067	0.809187***	0.008257
Ret _{t-1}	-0.001521***	0.000154	-0.001539***	0.000144
Armed Forces	0.000001	0.000004	0.000004	0.000005
Business	-0.000009	0.000014	-0.000018	0.000013
Educational Ins.	0.000031	0.000050	0.000068	0.000063
Government	-0.000001	0.000011	0.000003	0.000012
Private Citizen	0.000002	0.000006	-0.000004	0.000006
Religious Figures	0.000032***	0.000012	0.000028**	0.000012
Other Attacks	0.000007	0.000008	-0.000010	0.000007

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return. Armed Forces is a dummy variable which takes value of 1 for any terrorist attack where target of attack is armed forces zero otherwise, Business is a dummy variable which takes value of 1 for any terrorist attack where target of attack is business places zero otherwise, Educational Institutes is a dummy variable which takes value of 1 for any terrorist attack where target of attack is educational institute zero otherwise, Government is a dummy variable which takes value of 1 for any terrorist attack where target of attack is government offices zero otherwise, Private citizens is a dummy variable which takes value of 1 for any terrorist attack where target of attack is private citizen zero otherwise, Religious figures is a dummy variable which takes value of 1 for any terrorist attack where target of attack is any religious figure or institute zero otherwise, Other attacks is a dummy variable which takes value of 1 for any terrorist attack other than previously mentioned zero otherwise, and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.23: Terrorism Location and Stock Market using OLS Regression

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.111471***	0.032258	-0.034821	0.084965
Karachi	0.002276	0.003362	0.00334	0.002911
Financial City	-0.000045	0.002718	0.001241	0.00243
Large City	-0.001584	0.001375	-0.001757	0.001517
FATA	0.002728***	0.001042	0.003215**	0.001276
Kashmir	-0.004926	0.003359	-0.002144	0.002936
Other Locations	0.001120	0.000850	0.001548*	0.000919
Durbin Watson test	2.006953		2.003403	
DW				
Breusch–Pagan test prob.	0		0	
Serial Correlation	1		1	
LM Test prob.				

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return. Karachi is a dummy variable which takes the value of 1 for any terrorist attack happening in Karachi zero otherwise, Financial city is a dummy variable which takes the value of 1 for any terrorist attack happening in financial cities zero otherwise, Large city is a dummy variable which takes the value of 1 for any terrorist attack happening in large cities zero otherwise, FATA is a dummy variable which takes the value of 1 for any terrorist attack happening in FATA zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.24: Terrorism Location and Stock Market using GARCH (1,1)

Variable	Conventional		Islamic	
	Coefficient	SE	Coefficient	SE
Mean Equation				
Ret _{t-1}	0.114684***	0.043449	-0.02707	0.062074
Karachi	0.003015	0.005268	0.003687	0.007936
Financial City	0.000466	0.002761	0.001154	0.004069
Large City	-0.00079	0.001807	-0.00135	0.002475
FATA	0.003339*	0.00173	0.003383	0.002837
Kashmir	-0.00506	0.18666	-0.00232	0.86275
Other	0.00154	0.001352	0.001952	0.002582
Variance Equation				
C	0.00007***	0.00002	0.000118***	0.000027
RESID(-1)^2	0.12410***	0.04422	0.137603***	0.028733
GARCH(-1)	0.54902***	0.12578	0.576617***	0.089136
Ret _{t-1}	-0.00119**	0.00059	-0.000850	0.001032
Karachi	-0.00005	0.00006	-0.000127**	0.000063
Financial City	-0.00007*	0.00004	-0.000172***	0.000042
Large City	-0.00003	0.00002	-0.000096***	0.000036
FATA	-0.00004***	0.00001	-0.000095***	0.000026
Kashmir	-0.00011	0.00045	-0.000168	0.000807
Other	-0.00004**	0.00002	-0.000019	0.000031

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return. Karachi is a dummy variable which takes the value of 1 for any terrorist attack happening in Karachi zero otherwise, Financial city is a dummy variable which takes the value of 1 for any terrorist attack happening in financial cities zero otherwise, Large city is a dummy variable which takes the value of 1 for any terrorist attack happening in large cities zero otherwise, FATA is a dummy variable which takes the value of 1 for any terrorist attack happening in FATA zero otherwise, Other cities is a dummy variable which takes value of 1 for any terrorist attack happening in the cities other than previously mentioned zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.

Table 6.25: Terrorism Events and Stock Market during Islamic Calendar Months using OLS Regression (Event Day/ POS Day1)

Variable	Event Day Effect				POS Day 1 Effect			
	Conventional		Islamic		Conventional		Islamic	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.09710***	0.03232	-0.045573	0.085624	0.09875***	0.03252	-0.04211	0.07984
NEG1	0.00068	0.00063	0.000930	0.000700	0.00067	0.00062	0.00102	0.00070
NEG2	0.00069	0.00062	-0.000165	0.000866	0.00070	0.00062	0.00001	0.00084
NEG3	0.00021	0.00071	0.000597	0.000885	0.00021	0.00071	0.00068	0.00099
EVENTDAY	-0.00117	0.00196	-0.001833	0.002537	-0.00027	0.00067	-0.00009	0.00072
POS1	0.00006	0.00067	0.000828	0.000875	-0.00103	0.00176	-0.00230	0.00207
POS2	0.00069	0.00066	-0.000151	0.000866	0.00067	0.00065	-0.00017	0.00084
POS3	0.00050	0.00062	0.000394	0.000664	0.00046	0.00063	0.00049	0.00069
MUH	0.00151**	0.00072	0.001341*	0.000810	0.00161**	0.00072	0.00155**	0.00076
SAF	0.00038	0.00065	0.000686	0.000736	0.00036	0.00066	0.00061	0.00087
SHA	0.00055	0.00071	0.001433*	0.000791	0.00038	0.00072	0.00156*	0.00087
SHW	-0.00036	0.00104	-0.000358	0.001072	-0.00060	0.00103	-0.00049	0.00102
RA	0.00110	0.00079	0.001668	0.001105	0.00162**	0.00075	0.00208**	0.00106
RAJ	0.00103	0.00077	0.000987	0.000819	0.00111	0.00079	0.00099	0.00077
RAM	0.00110	0.00111	0.001457	0.001137	0.00123	0.00109	0.00179	0.00118
DQ	0.00038	0.00089	0.000502	0.001010	-0.00023	0.00092	-0.00029	0.00110
RTH	-0.00023	0.00084	0.000119	0.000841	0.00013	0.00081	0.00035	0.00092
JA	-0.00011	0.00078	0.000580	0.000796	-0.00002	0.00080	0.00071	0.00098
JTH	0.00098	0.00101	0.000842	0.002098	0.00077	0.00098	-0.00040	0.00142

Continue Table 6.25: Terrorism Events and Stock Market during Islamic Calendar Months using OLS Regression (Event Day/ POS Day1)

Variable	Event Day Effect				POS Day 1 Effect			
	Conventional		Islamic		Conventional		Islamic	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
MUH*Day Dummy	0.00198	0.00263	0.003209	0.003271	0.00108	0.00260	0.00198	0.00284
SAF*Day Dummy	0.00026	0.00312	0.000433	0.003800	0.00069	0.00277	0.00199	0.00265
SHA*Day Dummy	0.00071	0.00288	0.002033	0.003437	0.00200	0.00260	0.00221	0.00261
SHW*Day Dummy	0.00374	0.00270	0.005701*	0.003218	0.00550**	0.00279	0.00721*	0.00295
RA*Day Dummy	0.00241	0.00251	0.002845	0.003119	-0.00091	0.00279	0.00094	0.00312
RAJ*Day Dummy	0.00254	0.00304	0.003189	0.003453	0.00195	0.00256	0.00401	0.00296
RAM*Day Dummy	-0.00113	0.00298	0.000756	0.003495	-0.00201	0.00286	-0.00070	0.00352
DQ*Day Dummy	-0.00489	0.00386	-0.004059	0.004247	0.00074	0.00353	0.00404	0.00388
RTH*Day Dummy	0.00205	0.00260	0.002138	0.003100	0.00042	0.00261	0.00196	0.00295
JA*Day Dummy	0.00357	0.00314	0.004646	0.003516	0.00292	0.00257	0.00425	0.00273
JTH*Day Dummy	-0.00030	0.00324	0.000187	0.004440	0.00152	0.00357	0.01042	0.00754
Durbin Watson test	2.006967		2.000505		1.994821		1.989313	
DW								
Breusch–Pagan test	0		0		0		0	
prob								
Serial Correlation	0.2487		1		0.4518		0.0229	
LM Test prob.								

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return, Neg_1 indicates the one day before the event day, Neg_2 indicates two days before the event day, Neg_3 indicates three days before the event, Event day indicates the day event happened, Pos_1 indicates one day after the event, Pos_2 indicates two days after the event.

event, Pos₃ indicates three days after the event, MUH is a dummy variable which takes value of 1 for month of Muḥarram zero otherwise, SAF is a dummy variable which takes value of 1 for month of Safar zero otherwise, SHA is a dummy variable which takes value of 1 for month of Sha'aban zero otherwise, SHW is a dummy variable which takes value of 1 for month of Shawwal zero otherwise, RA is a dummy variable which takes value of 1 for month of Rabi' al-awal zero otherwise, RAJ is a dummy variable which takes value of 1 for month of Rajab zero otherwise, RAM is a dummy variable which takes value of 1 for month of Ramaḍan zero otherwise, DQ is a dummy variable which takes value of 1 for month of Duh al-Qidah zero otherwise, RTH is a dummy variable which takes value of 1 for month of Rabi' al-thani zero otherwise, JA is a dummy variable which takes value of 1 for month of Jumada al-awal zero otherwise, JTH is a dummy variable which takes value of 1 for month of Jumada al-thani zero otherwise, Day dummy indicates four dummy variables for event day, post day one, post day two and post day 3. Day dummy for event day takes value of 1 event day zero otherwise, Day dummy for post day event one takes value of 1 for one day after the event zero otherwise, Day dummy for post day event two takes value of 1 for one day after the event zero otherwise, Day dummy for post day event three takes value of 1 for one day after the event zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance.



Table 6.26: Terrorism Events and Stock Market during Islamic Calendar Months using OLS Regression (POS Day 2/ POS Day3)

Variable	POS Day 2 Effect				POS Day 3 Effect			
	Conventional		Islamic		Conventional		Islamic	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
Ret _{t-1}	0.10572***	0.03241	-0.03758	0.08307	0.104079***	0.032284	-0.038308	0.085043
NEG1	0.00064	0.00062	0.00079	0.00070	0.000773	0.000621	0.001007	0.000696
NEG2	0.00067	0.00063	-0.00018	0.00087	0.000700	0.000616	-0.000144	0.000873
NEG3	0.00004	0.00071	0.00055	0.00089	0.000119	0.000704	0.000550	0.000887
EVENTDAY	-0.00029	0.00066	-0.00018	0.00075	-0.000298	0.000655	-0.000133	0.000745
POS1	0.00011	0.00067	0.00088	0.00088	0.000105	0.000667	0.000830	0.000868
POS2	-0.00243	0.00230	-0.00215	0.00226	0.000616	0.000652	-0.000165	0.000862
POS3	0.00054	0.00063	0.00052	0.00067	0.003453*	0.002029	0.002592	0.001899
MUH	0.00172**	0.00071	0.00161**	0.00081	0.001798**	0.000720	0.001512*	0.000803
SAF	0.00015	0.00067	0.00028	0.00076	0.000478	0.000673	0.000617	0.000757
SHA	0.00037	0.00073	0.00121	0.00081	0.000710	0.000719	0.001697**	0.000802
SHW	0.00077	0.00093	0.00068	0.00099	-0.000741	0.001048	-0.000670	0.001092
RA	0.00135*	0.00081	0.00166	0.00110	0.001553	0.000761	0.002345**	0.001084
RAJ	0.00150**	0.00079	0.00138	0.00082	0.001197	0.000764	0.001195	0.000817
RAM	0.00016	0.00106	0.00072	0.00110	0.000928	0.001101	0.001407	0.001127
DQ	-0.00058	0.00095	-0.00047	0.00105	-0.000034	0.000916	-0.000008	0.001036
RTH	0.00038	0.00086	0.00048	0.00087	0.000181	0.000853	0.000422	0.000865
JA	0.00011	0.00079	0.00071	0.00079	0.000183	0.000804	0.000801	0.000811
JTH	0.00042	0.00103	0.00114	0.00192	0.000316	0.001009	0.000082	0.002080

Continue Table 6.26: Terrorism Events and Stock Market during Islamic Calendar Months using OLS Regression (POS Day 2/ POS Day3)

Variable	POS Day 2 Effect				POS Day 3 Effect			
	Conventional		Islamic		Conventional		Islamic	
	Coefficient	SE	Coefficient	SE	Coefficient	SE	Coefficient	SE
MUH*Day Dummy	0.002098	0.003175	0.00076	0.00315	-0.004735*	0.002735	-0.002605	0.003036
SAF*Day Dummy	0.004982*	0.002992	0.00482	0.00306	-0.005029*	0.002604	-0.003239	0.002877
SHA*Day Dummy	0.004172	0.002826	0.00377	0.00291	-0.004198	0.002857	-0.003703	0.002875
SHW*Day Dummy	-0.00194	0.004055	-0.00168	0.00404	0.001526	0.002844	0.002643	0.002699
RA*Day Dummy	0.003073	0.002638	0.00320	0.00288	-0.004386	0.002847	-0.005515	0.002759
RAJ*Day Dummy	0.000703	0.00307	-0.00001	0.00321	-0.002951	0.003255	-0.00274**	0.003214
RAM*Day Dummy	0.007382**	0.003683	0.00604	0.00371	-0.004316	0.002777	-0.003194	0.003008
DQ* Day Dummy	0.006368**	0.002944	0.00543	0.00345	-0.005305	0.003698	-0.003598	0.003474
RTH*Day Dummy	0.001264	0.002744	0.00066	0.00271	-0.003909	0.002590	-0.003352	0.002448
JA*Day Dummy	0.003571	0.003385	0.00343	0.00347	-0.003220	0.002900	-0.001712	0.002900
JTH*Day Dummy	0.006428**	0.003043	-0.00197	0.00710	0.001042	0.003091	0.002122	0.003650
Durbin Watson test	2.000242		1.993087		2.002381		2.001565	
DW								
Breusch–Pagan test	0		0				0	
prob								
Serial Correlation LM	1		0.1095		0.6771		0.6757	
Test prob.								

Note: C indicates the intercept term for the equation, Ret_{t-1} indicate the one period lagged return, Neg_1 indicates the one day before the event day, Neg_2 indicates two days before the event day, Neg_3 indicates three days before the event, Event day indicates the day event happened, Pos_1 indicates one day after the event, Pos_2 indicates two days after the event, Pos_3 indicates three days after the event, MUH is a dummy variable which takes value of 1 for month of Muḥarram zero otherwise, SAF is a dummy variable which takes

value of 1 for month of Safar zero otherwise, SHA is a dummy variable which takes value of 1 for month of Sha'aban zero otherwise, SHW is a dummy variable which takes value of 1 for month of Shawwal zero otherwise, RA is a dummy variable which takes value of 1 for month of Rabi' al-awal zero otherwise, RAJ is a dummy variable which takes value of 1 for month of Rajab zero otherwise, RAM is a dummy variable which takes value of 1 for month of Ramadan zero otherwise, DQ is a dummy variable which takes value of 1 for month of Duh al-Qidah zero otherwise, RTH is a dummy variable which takes value of 1 for month of Rabi' al-thani zero otherwise, JA is a dummy variable which takes value of 1 for month of Jumada al-awal zero otherwise, JTH is a dummy variable which takes value of 1 for month of Jumada al-thani zero otherwise, Day dummy indicates four dummy variables for event day, post day one, post day two and post day 3. Day dummy for event day takes value of 1 event day zero otherwise, Day dummy for post day event one takes value of 1 for one day after the event zero otherwise, Day dummy for post day event two takes value of 1 for one day after the event zero otherwise, Day dummy for post day event three takes value of 1 for one day after the event zero otherwise and *, **, *** indicates ten percent, five percent and one percent level of significance

