

Impact of Anomalies in Form of Islamic Calendar Date (Eid-UI-Fitr) of Trading Values on The KSE Stock Prices

(A Case of Five Random Companies From 30 Index of Karachi Stock Market)

Afnan Bin Sultan and Zilakat Khan Malik

ABSTRACT

The research paper examined the effect of anomalies in the form of Islamic calendar date (Eid Ul Fitr). The study has taken five random companies from KSE 30-index with time series data for time period of 2002-2011. The tools of measurement that were adopted in the study consist of multiple regression model and correlation model to check the relationship between independent and dependent variables. The study concluded that in most cases there is a negative relationship between the trading value and the stock prices and mostly found insignificant.

Key Words: Islamic calendar effect (Eid Ul Fitr), Trading Value, Stock Prices, Karachi Stock Market (KSE), Anomalies.

INTRODUCTION

The stock market is affected by many financial and economic variables on a constant basis like the country's inflation rate, unemployment rate, interest rate and many more. Usually two calendar years are followed, these are Islamic and Gregorian calendar year. In English calendar year there are special days like Labor Day, Poverty Day, and Valentine Day etc. These special dates have some impact on the international Stock markets which can be measured. Likewise, special days in Islamic calendar are the month of Ramadan, Eid days (Eid-ul-Fitr, Eid-ul-Azha,) Eid Milad-un-Nabi, and Ninth and Tenth of Muharram etc. These special Islamic days also have impact on the stock markets.

In this research, the study wants to find the impact of the Eid-UI-Fitr day on the Karachi Stock Market. Pakistan is an Islamic state and it expected that there is great impact of these Islamic anomalies on the Karachi Stock Market. For this, the study has taken the Eid-ul-Fitr days from 2002 to 2011 and the trading value and stock price of five different companies from five different sectors for the same time period.

Problem statement:

The stock markets get affected by many incidents like political instability, national holidays etc. In the same manner the Muslim world has some special religious activities associated with special days related to Muslim Ummah and due to these days business activities are affected. Eid-UI-Fitr is one of these special days. Pakistan is an Islamic country and Eid-ul-Fitr celebrated here as well. On this particular day the stock market is closed so researcher wants to investigate its effect on the KSE when it opens for

trading after Eid-ul-Fitr holidays.

Purpose of study:

In this research study the researcher wants to evaluate the relation between Eid-UI-Fitr and the fluctuations between the stock prices in the Karachi stock market. In order to examine the impact of Eid UI Fitr on the stock prices listed on the Karachi stock market the study has taken five different company from five different sectors in order to indentify and understand more properly the variations in stock prices due to Eid UI Fitr.

Significance of the study:

A lot of work has been done on the calendar effects on the stock market. Likewise, the Islamic calendar anomalies are one of it and have been observed empirically by the academic researchers for last couple of years especially in Islamic countries around the globe. As it has been observed that all Islamic calendar anomalies have affected the stock markets, it is expected that Pakistan is an Islamic state, therefore the Karachi stock market will get affected by these anomalies. This study will contribute to literature by coming up with evidence highlighting the effect of Eid-UI-Fitr on the KSE stock prices.

LITERATURE REVIEW

The Islamic calendar anomalies are becoming very researchable topics that lay its impact on the stock markets. A lot has been already done in this regard. According to the Mustafa, K. (2011) in Karachi stock market is more risky in the month of Ramadan as compared with other months. He investigated the Islamic calendar anomalies, the month Ramadan, with the conditional and unconditional risk analysis. The study found that in the holy month of Ramadan Karachi stock market is highly volatile and riskier. The study used five different models including simple regression model with the error term and found that Ramadan has great negative relationship with the stock market performance.

Shahid and Muhammad (2007) examined the calendar anomalies in different stock markets of Pakistan using data from 1991 to 2006 on daily, weekly and monthly basis the returns on stocks. The statistical techniques used for the study were ANOVA and F-test. The findings suggested that their no shorter effect like weekly or monthly by calendar anomalies on the stock returns although the markets is often inefficient in short run in Pakistan in stock returns. Fahad, A. (2012) also worked on the Islamic calendar anomalies in twelve different countries most of them were Islamic countries with an objective to examine the returns on stock returns in the month of Ramadan. The researcher findings concluded that there is positive effect on stock returns in the month of Ramadan specially in Turkey, Kuwait, Jordan and Pakistan.

Peter and Asgar (2003) worked on the calendar anomalies that may cause disequilibrium in the stock market performance in the specific time period. They

applied the test on the stock indices of countries like Hong Kong, Germany, France, Denmark, Norway, Italy, Japan, USA, UK and Sweden. The researchers found that the calendar anomalies may affect the small stock markets on small scale but in the big stock markets the calendar effects is ignorable or almost no effect. Jedrzej and Ahmad et al. (2008) investigated the effect of month of Ramadan on stock return in 14 Muslim countries. The study suggested that the positive relation between the month of Ramadan and the stock returns. Moreover the results showed a bit higher volatility in the stock returns as compared with the other months.

Contrary to this, Husain (1998) investigated the Pakistan's stock market in the month of Ramadan and results showed that there is less volatility in stock returns as compared with the other months of the year, although researcher did not considered the average mean return before and after Ramadan. Cooper et al. (2006) also investigated the calendar effects on the stock market performance and their impact on the stock return. Their study focused on the January effect on the stock performance. As these are the starting days of New Year and people celebrate the New Years Eve so it is reflected on the stock market performances as well the study found significant positive effect on stock return. Wong (1990) used linear regression and correlation model for the study and showed a negative impact of month of Ramadan on the stock market performances of Malaysia.

HYPOTHESIS OF THE STUDY

H1: Eid-ul-Fitr has pre anomalies effect on the Stock Prices of KSE.

H2: Eid-ul-Fitr has post anomalies effect on the Stock Prices of KSE.

Research Methodology:

In order to examine the effect of Eid-ul-Fitr on the KSE comprehensively, the study collected data from 2002 to 2011 of randomly selected five different companies from five different sectors. The data has been quoted from the Karachi Stock Exchange official website and from business recorder website. Dates of Eid-ul-Fitr, trading value and stock price are the variables of the study. The data is then analyzed using multiple regression model and correlation techniques. The selected companies and the sectors for the study are listed as follows;

Companies	Sectors
Pakistan State Oil (PSO)	Oil and Distribution sector
Pakistan National Shipping Corporation Limited (PNSCL)	Industrial transportation Sector
Indus Motor Corporation Limited (IMCL)	Auto mobile and spare parts sector
Sardar Chemical Industries (SCI)	Chemical Sector
Karachi Electricity Supply Company (KESC)	Electricity Sector

EMPIRICAL FINDINGS

Table 1. Descriptive Statistics

	Company-1 (PSO)		Company-2 (PNSCL)		Company-3 (IMCL)		Company-4 (SCI)		Company-5 (KESC)	
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D
Pre TV	1.5651E9	1.51591E9	1.9467E6	3.08383E6	1.2269E7	1.34251E7	8.5767E4	9.90164E4	4.4109E6	2.99544E6
Pre SP	4.4794E10	1.79929E10	6.1340E9	3.46819E9	1.2622E10	6.63765E9	2.1240E7	1.46682E7	3.2779E10	1.67835E10
Post TV	2.8350E9	2.71294E9	3.0400E6	4.00444E6	1.0908E7	1.36451E7	3.8725E4	2.86717E4	4.3984E7	8.62058E7
Post SP	1.1596E11	2.10722E11	6.4938E9	3.89764E9	2.7066E10	4.24371E10	2.1838E7	1.75255E7	3.2124E10	1.45652E10

Pre anomaly average trading value for PSO, PNSCL, IMCL, SCI and KESC was 1.5651E9, 1.9467E6, 1.2269E7, 8.5767E4, and 4.4109E6 respectively. The respective standard deviations for the companies were 1.51591E9, 3.08383E6, 1.34251E7, 9.90164E4 and 2.99544E6. In Pre anomaly trading value, the highest average value is of SCI (8.5767E4) and lowest is of IMCL (1.2269E7) and the highest variation from average is of SCI (9.90164E4) and lowest of IMCL (1.34251E7).

A Pre anomaly average Stock price for the above mentioned companies was 4.4794E10, 6.1340E9, 1.2622E10, 2.1240E7 and 3.2779E10 respectively. The respective standard deviations for the companies were 1.79929E10, 3.46819E9, 6.63765E9, 1.46682E7 and 1.67835E10. In Pre anomaly stock price affect the highest average value is of PNSCL (6.1340E9) and lowest is of IMCL (1.2622E10) and the highest variation from average is of IMCL (6.63765E9) and lowest of SCI (1.46682E7).

Post anomaly average trading value for PSO, PNSCL, IMCL, SCI and KESC was 2.8350E9, 3.0400E6, 1.0908E7, 3.8725E4 and 4.3984E7 respectively. The respective standard deviations for the companies were 2.71294E9, 4.00444E6, 1.36451E7, 2.86717E4 and 8.62058E7. In Post anomaly trading value, the highest average value is of KESC (4.3984E7) and lowest is of IMCL (1.0908E7) and the highest variation from average is of KESC (8.62058E7) and lowest of IMCL (1.36451E7). A Post anomaly average Stock price for the above mentioned companies was 1.1596E11, 6.4938E9, 2.7066E10, 2.1838E7 and 3.2124E10 respectively. The respective standard deviations for the companies were 2.10722E11, 3.89764E9, 4.24371E10, 1.75255E7 and 1.45652E10. In Post anomaly stock price, the highest average value is of PNSCL (6.4938E9) and lowest is of PSO (1.1596E11) and the highest variation from average is of IMCL (4.24371E10) and lowest of KESC (1.45652E10).

Table 2. Regression Findings

		Beta value	t-test	Sig. level
Company-1 (PSO)	Pre	-1.59	-0.416	0.695
	Post	-40.782	-0.894	0.422
Company-2 (PNSCL)	Pre	10274.608	2.136	0.099
	Post	442.006	0.792	0.473
Company-3 (IMCL)	Pre	288.148	1.044	0.355
	Post	469.579	2.217	0.091
Company-4 (SCI)	Pre	-44.12	-0.266	0.858
	Post	485.3	0.939	0.447
Company-5 (KESC)	Pre	-2688.842	-1.411	0.217
	Post	-34.348	-1.861	0.136

The Table results shows that the impact of unit Pre trading value of first company is producing -1.590 change with insignificant value .695 and t-test is also not acceptable because it is -.416 below 2 and the impact of unit in post trading value of first company is producing -.408 change with insignificant value .422 and t-test is also not acceptable because it is -.894 below 2. The impact of unit Pre trading value of second company is producing 1027.608 change with significant value .099 and t-test is also acceptable because it is 2.136 above 2 and the impact of unit in post trading value of second company is producing 442.006 change with insignificant value .473 and t-test is also not acceptable because it is .792 below 2. The impact of unit Pre trading value of third company is producing 288.148 change with insignificant value .355 and t-test is also not acceptable because it is 1.044 below 2 and the impact of unit in post trading value of third company is producing 469.579 change with significant value .091 and t-test is also acceptable because it is 2.217 above 2. The impact of unit Pre trading value of fourth company is producing -44.120 change with insignificant value .858 and t-test is also not acceptable because it is -.226 below 2 and the impact of unit in post trading value of fourth company is producing 485.300 change with insignificant value .447 and t-test is also not acceptable because it is .939 below 2. The impact of unit Pre trading value of fifth company is producing -2688.842 change with insignificant value .217 and t-test is also not acceptable because it is -1.411 below 2 and the impact of unit in post trading value of fifth company is producing -34.348 change with insignificant value .136 and t-test is also not acceptable because it is -1.861 below 2.

DISCUSSION AND RECOMMENDATIONS

The results showed negative and insignificant relationship in most of the cases, as the results of correlation of company 1, 4, 5 show there is negative and insignificant relationship between the trading value and the stock prices, while only company 3 results show that trading value and stock prices have positive and significant

relationship. While company 2 results show positive but insignificant relationship between trading value and stock prices. The results of regression analysis show that company 2 pre trading value and stock prices have significant relationship and according to t-test their relationship is acceptable, company 3 post trading value and stock prices have significant relationship and according to t-test their relationship is acceptable, while in all other cases the relationship is negative, insignificant and the results are not acceptable according to t-test. So the study shows that the relationship between trading value and stock prices in case of Islamic calendar anomaly (Eid-ul-Fitr) is negative. The research study results in comparison with the previous researcher's show their research findings also proved that in most of the cases there is negative relationship between the trading value and stock prices in case of Islamic calendar anomaly (Eid-ul-Fitr).

CONCLUSION

Conclusively the research study proves that the relationship between trading value and stock prices in case of Islamic calendar anomaly (Eid Ul Fitr) is negative in most of the cases, only company 3 result shows that trading value and stock prices have positive and significant relationship, company 3 post trading value and stock prices have significant relationship and according to t-test their relationship is acceptable, while in all other cases prove the relationship is negative, insignificant and the results are not acceptable according to t-test.

RECOMMENDATION

Anomalies have influential impact therefore these financial behaviors required to be considered for rational investment decisions. There should be approachable and calculatable statistical information available to promote sound financial investment decisions. The stock prices fluctuations after these types of anomalies must be highlighted in stock prices to guide investors in better decision making. The Islamic calendar anomalies effects should be considered in future decision making and further investments. The Islamic countries stock markets mostly get affected by these types of anomalies so they must take preemptive decision to update and manage the stock prices in respective stock markets. Further work must be done in this manner so that further profitable finding should be gained which guide in making good decisions.

REFERENCES

- Ali, S. & Akbar, M. (2007). Calendar effect in Pakistani stock market. *International Review of Business Research Papers*, 5, 389-404.
- Cooper, M., John, McConnell and Alexei Outchinnikov (2006). The other January effect. *Journal of financial economics*, 82(2), 315-341

- Fahad, A. (2012). The Islamic calendar effects: evidence from twelve stock Markets. *International research journal of finance and economics*, 87, 85-191.
- Hussain, F. (1998). Seasonality in the Pakistani stock market. *The Pakistan development Review*, 37(1), 77-81.
- Jedrzej, B., Ahmed, E., & Tomasz, P. W. (2003). Piety and Profit: stock market anomaly during Muslims holy month. *JEL classifications G12, G14*, 1-55
- Khalid, M. (2011). The Islamic calendar effect on Karachi stock market. *Pakistan Business review*, 562-574.
- Peter, R. H. & Asger, L. (2003). Testing the significance of Islamic calendar. 1Brown University, Department of Economics, Box B, Brown University, Providence, RI 02912, USA, Phone: (401) 863
- Wong, P. N., Lee, K., and Thong, T. (1990). Seasonality in the Malaysian stock market. *Asian Pacific journal of management sciences*, 7, 43-62.



Afnan Bin Sultan: Lecturer, Department of Management Sciences, Qurtuba University Hayatabad, Peshawar. MS in Finance from Gandhara University Peshawar. MBA in Finance from CECOS University of Peshawar. Published one research paper. Area of interest is applied finance.
afnan.sultan@gmail.com



Zilakat Khan Malik: Associate Professor of Economics, Department of Economics, University of Peshawar. Ph.D in Economics from University of Peshawar. During 23 years teaching experience, taught various subjects of Economics as Lecturer in Islamia College University, Peshawar, as Assistant Professor in Peshawar University and as Professor of Economics in Kardan University, Kabul, Afghanistan. More than 19 Research Papers. Area of interest: Social Sciences, International Economics, and Development Economics.
e-mail: zilakat@upesh.edu.pk