

## The Ramadan Effect on Stock Market

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### Abstract:

*In this paper we have endeavored to examine the consequences of Islamic month Ramadan on the Karachi Stock Market. Monthly data of the last 3 years, 2010, 2011 and 2012 was collected for this paper from yahoo finance. The Effect of Ramadan on KSE market on mean return is examined by including a Dummy variable in regression model. It is observed that returns in KSE market are not showing significant behavior during the month of Ramadan. In the light of observation it is concluded that Ramadan effect is not significant in Karachi Stock Exchange.*

**Key words:** Karachi Stock Exchange Market, Ramadan Effect, mean return

### Introduction

The month of Ramadan, the spiritual month of fasting, is habitual to affect the practice of stock market in Pakistan where the situation in Ramadan is different from other months. As people allot more time to achieve religious rituals, the ordinary economic activity slows down. A Ramadan effect is found common in all Islamic Countries. It indicates that there

is Ramadan effect in Karachi Stock market.

There is much less attention paid on Islamic calendar, and people do not observe it in their daily life. While Islamic calendar shows effects on the life of Muslims, as a whole or individually, like the month of Muharam and Ramadan in which people pay their much attention towards rituals and faith. This can affect the daily business life in country, because less attention is paid on other activities.

However some studies are also conducted in this regard, to show the impact of Islamic calendar on business or stock market. These studies are conducted in Turkey (Alper and Aruoba 2001), Saudi Arabia (Seyyed, Abraham, and Al-Hajji 2005), Iran (Ramezain 2013) and in Pakistan (Husain 1998) to examine the difference in working of stock market in Ramadan and other months.

There is also the influence of religion on investment, Islam prohibiting many kinds of business like wine making and selling, business on interest, or other interest bearing businesses. According to Islamic laws all these businesses should be closed during Prayer time. In Ramadan, people on the large scale follow the spiritual principles, much of the time being spent on spiritual rituals and then on business. This can affect the daily routine of business.

At the end of Ramadan, the Muslim society celebrates EID-UL-FITAR. People purchase new clothes, perfumes, gifts or many bakery or other eating items which increase the business in the last ten days of Ramadan, many business offering sales on their items, or most business offering higher prices on their products. People make purchase on large quantity, everyone purchasing ore costly or new items. After Eid, the prices return on lower tags or people make less purchase, and market returns to normal routine.

Due to such kind of behavior in Ramadan, it is interesting to compare this month with other months. The purpose of this study is to examine the market during

Ramadan.

The studies on Ramadan effect are few in numbers, and it is required to study Karachi, Lahore and Islamabad Stock markets in this regard to know the impact of Ramadan on the stock markets.

This paper includes the data of 3 years of 2010, 2011, 2012 which shows the impact of Ramadan in the second decade of the 21<sup>st</sup> century.

## **Literature Review**

Alper and Aruoba (2001) analyze various macroeconomic variables in Turkey, and show that the usual seasonal adjustment procedures based on fixed holidays often fail to remove all seasonality when the series are subject to moving holidays like Ramadan. However, they do not find any significant Ramadan effect in Istanbul stock market.

Moreover, Husain (1998) analyzed the Ramadan effect in Pakistani stock market and demonstrated that volatility is significantly lower during the weeks of Ramadan. He does not find any significant changes in average returns during Ramadan. However, he does not compare the mean average return before and after Ramadan.

Seyyed, Abraham, and Al-Hajji (2005) investigated the Ramadan effect in Saudi Arabian stock market. They analyzed several sector indices in the market and showed that volatility and trading activity disappeared significantly during Ramadan.

Husain (1998) reported that there is no significant change found in average returns during Ramadan, but he did not look at the stock returns before and after Ramadan.

Husain (1998) and (Seyyed, Abraham, and Al-Hajji, 2005) investigate the effect of Ramadan on the Karachi Stock Exchange and the Saudi one, respectively. While both studies find lower volatility during the month of Ramadan, neither was able to detect an effect on mean returns.

Mustafa (2008) reported that after adding dummy variables in risk factor in the month of Ramadan, Ramadan effect is found. This study uses both conditional and unconditional risk models to find effect of Ramadan on KSE.

Mustafa's study (2008) analyzed that different models produced different results, but Ramadan effect is found in all models.

Ramezain (2013) studied the impact of Ramadan in Iran, on Tehran Stock Exchange. His research indicates that there is positive and significant relationship between stock exchange and Ramadan.

## **Data and Methodology**

This paper presents the Daily data of Karachi Stock Exchange, the main equity market in Pakistan to check the impact of faith on financial market. The analysis was performed on daily index of KSE 100 index. The data was collected through KSE webpage and Yahoo finance. During the period in which this study was conducted the stock market was open for five business days. The data covers the period from January 1, 2010 to December 31, 2012 to examine the Ramadan effect on KSE market; the following equation was used

$$Y = \alpha + \beta \text{ Dummy (Ramadan)} + \varepsilon$$

Where Dummy represents Ramadan, that is the dummy assumes the value of 1 for days in which fasts were observed: the holy month of Ramadan and zero otherwise. This equation is the simplest test to check the Ramadan effect on stock market. The regression analysis technique is used to measure the change on stock market during Ramadan.

To check the effect of Ramadan on stock market, the financial software known as EViews is used to calculate the exact result for this paper. To know the changes which were

occurring during the month of Ramadan, for this purpose data is collected in two separate sections: one contains the data of KSE 100 index and other shows dummy variables. For putting these data, variables of return and dummy are also created in e views. After applying formula (return c dummy), it calculates p-value, t-value, R square and Durban Watson, shown in the table to estimate the accurate result. This process plays vital role in understanding the concept of change in index or check the Ramadan effect on stock exchange.

## Results

In the view of findings by using dummy variables it is observed that there is no change occurring during Ramadan in relation with stock market. The result shows normal returns which occur in other months of calendar. In the month of Ramadan there is a same return which is found in the previous month of Ramadan or after the month of Ramadan, the returns are same. In this paper to measure the change in KSE 100 index during Ramadan, three tables are used to note the changes in stock market

This table presents the values which are obtained to check the effect of Ramadan on KSE 100 index. The following result contains the data from January 1, 2010 to December 31, 2012

variables	coefficient	t- statistic	Prob.
Dummy	-0.002155	-1.773351	0.0766
R square =	0.004215		

**Table 1**

In table 1, the Ramadan effect is checked by putting dummy variable “1” against the month of Ramadan and others represented as “0”. After applying regression in EViews, the result shows no significant change or negative impact in stock market

variables	coefficient	t- statistic	Prob.
Dummy	-8.31E-06	-0.008177	0.9935
R square = 0.000000			

**Table 2**

In table 2, to check the Ramadan effect on stock market, the month of Ramadan is presented by dummy variable “0” and the month (Shaban) before Ramadan is represented through dummy variable “1”. The results show the same impact as shown in table 1. There is no significant change or inverse relation between Ramadan and stock market.

variables	coefficient	t- statistic	Prob.
Dummy	0.001777	1.751343	0.0803
R square = 0.004111			

**Table 3**

In table 3, the Ramadan effect is studied by putting Ramadan as “0” and the month (Shawwal) after Ramadan is represented through dummy variable “1”. This table also shows no such change occurring in the month of Ramadan. The same effect which is found in table 1 and 2 is also present in table 3.

Such results are also found by Alper and Aruoba (2001) in the Istanbul stock market. Husain (1998) reported that there is no significant change found in average returns during Ramadan, they did not affect the stock returns before and after Ramadan.

This study focus on the outcomes of faith on financial market. The results clearly show that the predictions which are assumed, that the people belonging to religion Islam paid much attention towards the rituals in the month of Ramadan is not supported by the results. The factors behind this is the fast growing world in economic sphere. Today people pay less attention towards faith, as they used to do in the past. Today money or profit is considered more necessary; because of this kind of situation people follow the same routine of business in

Ramadan, which brings no such difference in stock market. The growing world in business needs more business or working hours to compete with other non-Islamic countries to maintain the stability in global market.

## **Conclusion**

This paper investigated the daily data of KSE 100 index, from January 1, 2010 to December 31, 2012, to investigate the effect of Islamic month of Ramadan on stock market. It investigates the effect of the holy month of Ramadan on financial market. Ramadan is the spiritual month in Islamic world, and the working hours are also less in this month or people pay less attention towards business. This is the month of faith, which possibly changes the daily life routine. The study finds that the religious factor is not associated with financial market and the market remains the same during Ramadan as any other month of the year. Another reason may be that the Gregorian calendar is followed in Pakistan and not the Islamic calendar, due to which the impact of Ramadan is not observed on stock market.

## **Limitation and future research**

The limitation of this paper is the sample size, lack of prior research studies on the topic, time constraint and availability of data. Future research should cover more stock markets, also stock markets of other Islamic countries, and obtain the data of ten to twenty years.

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