# IMPACT OF EID-AL FITR ON STOCK MARKET PERFORMANCE (A COMPARATIVE STUDY BETWEEN INDONESIA STOCK EXCHANGE AND TADAWUL STOCK EXCHANGE) 

(Undergraduate Thesis)

By<br>MONICA ROSELLA SITORUS



FACULTY OF ECONOMICS AND BUSINESS
UNIVERSITY OF LAMPUNG
BANDAR LAMPUNG
2019


#### Abstract

\title{ IMPACT OF EID-AL FITR ON STOCK MARKET PERFORMANCE (A COMPARATIVE STUDY BETWEEN INDONESIA STOCK EXCHANGE AND TADAWUL STOCK EXCHANGE) }


By<br>MONICA ROSELLA SITORUS


#### Abstract

This study aims to examine the impact of Eid-Al Fitr on stock market performance, which are divided into the performance of stock market index, stock market return, and trading volume activity. This study also aims to examine if there is difference of stock market performance between Indonesia Stock Exchange and Tadawul Stock Exchange. The sample of this study is the Jakarta Composite Index and Tadawul All Share Index, their market return and trading volume activity in Indonesia Stock Exchange and Tadawul Stock Exchange. The data analysis techniques uses descriptive statistical analysis, multiple linear regression, and the $t$-test.

The result of this study shows that there is impact of Eid-Al Fitr on stock market return, but there is no impact of Eid-Al Fitr on stock market index and trading volume activity. Hence, there is no difference of stock market return performance between Indonesia Stock Exchange and Tadawul Stock Exchange, but there is difference of stock market index and trading volume activity between Indonesia Stock Exchange and Tadawul Stock Exchange.


Key words: Impact Eid-Al Fitr, stock market index, stock market return, trading volume activity

# By <br> MONICA ROSELLA SITORUS 

Undergraduate Thesis
As One of Requirements to Achieve BACHELOR OF ECONOMICS

## In

## Management Department

Faculty of Economics and Business University of Lampung


FACULTY OF ECONOMICS AND BUSINESS UNIVERSITY OF LAMPUNG BANDAR LAMPUNG

2. Ketua Jurusan Manajemen


Dr. R.R. Erlina, S.E., M.Si.
NIP. 1962082219877032002

## MENGESAHKAN

1. Tim Penguji


NIP. 196109041987031011

Tanggal lulus ujian: 24 Juni 2019

## SURAT PERNYATAAN

Saya yang bertandatangan dibawah ini:
Nama : Monica Rosellà Sitorus
NPM : 1511011119
Fakultas : Ekonomi dan Bisnis
Jurusan : Manajemen
Judul Skripsi : Impact of Eid-Al Fitr on Stock Market Performance (A Comparative Study Between Indonesia Stock Exchange and Tadawul Stock Exchange)

Dengan ini menyatakan:

1. Hasil Penelitian/Skripsi serta Sumber Informasi/Data adalah benar merupakan hasil karya sendiri dan belum diajukan dalam bentuk apapun kepada perguruan tinggi manapun. Sumber data dan informasi yang berasal atau kutipan dari karya yang diterbitkan maupun tidak diterbitkan dari peneliti lain telah disebutkan didalam teks dan dicantumkan dalam daftar pustaka dibagian akhir Hasil Penelitian/Skripsi ini.
2. Menyerahkan sepenuhnya hasil penelitian saya dalam bentuk hardcopy dan softcopy skripsi ini untuk dipublikasikan ke media cetak ataupun elektronika kepada Jurusan Manajemen Fakultas Ekonomi dan Bisnis Universitas Lampung.
3. Tidak akan menuntut/meminta ganti rugi dalam bentuk apapun atas segala sesuatu yang dilakukan oleh Jurusan Manajemen Fakultas Ekonomi dan Bisnis Universitas Lampung terhadap Hasil Penelitian/Skripsi ini.
4. Apabila ternyata dikemudian hari Penelitian Skripsi ini merupakan hasil plagiat atau penjiplakan terhadap karya orang lain, maka saya bersedia menerima sanksi berdasarkan aturan tata tertib yang berlaku di Universitas Lampung.

Demikian surat pernyataan ini saya buat dengan sesungguhnya, untuk dapat di pergunakan sebagaimana mestinya.

Bandar Lampung, 24 Juni 2019
Yang membuat pernyataan,


Monica Rosella Sitorus

## BIOGRAPHY

The researcher was born on June 01st, 1997 in Bandar Lampung, Indonesia. The third child of Budiman Sitorus and Nourmalyna Manik and the sister of Ryan Fernandes M. Sitorus, Merry Dwi Christine Sitorus and Posma Uli Shinta Dewi Sitorus.

The researcher initial academic stage started on TK Xaverius 1 Bandar Lampung in 2002. Then, the researcher continued studying at SD Xaverius 1 Bandar Lampung in 2003, then continued to SMP Xaverius 1 Bandar Lampung in 2009. In 2012, the researcher continued studying in SMA Negeri 2 Bandar Lampung.

In 2015, the researcher was accepted in Faculty of Economics and Business, University of Lampung, majoring in Financial Management and took International Class.

## MOTTO

"Be strong and courageous. Do not be afraid or terrified because of them, for the Lord your God goes to you; He will never leave you nor forsake you."

## -Deuteronomy 31:6

"Opportunity is not accidental. You have to create it."

## -Chriss Grosser

"The future belongs to those who believe in the beauty of their dreams."
-Eleanor Roosevelt

## DEDICATIONS

With gratitude of all joy and blessings given by God, this thesis is dedicated to the most important people in my life. My parents, my siblings and my friends.

Thank you for all the sacrifices you have given. I'm truly grateful to be surrounded and guided by an incredibly supportive family. I would not be who I am today without their guidance, love, advices and prayers. I will try as hard as I could to make you proud.

## ACKNOWLEDGEMENT

Praise and gratitude to Jesus Christ for its blessings and directions, thus the research can finish this undergraduate thesis entitled "Impact of Eid-Al Fitr on Stock Market Performance (A Comparative Study Between Indonesia Stock Exchange and Tadawul Stock Exchange)". This undergraduate thesis is one of requirements to receive the Undergraduate Degree in Faculty of Economic and Business, University of Lampung.

In writing this undergraduate thesis, the researcher realized that this achievement would never have come into existence without any supports, encouragements, and assistance by several important people. Thus, the researcher would like to express gratitude to:

1. Prof. Dr. H. Satria Bangsawan, S.E., M.Si., as the Dean of the Faculty of Economics and Business, University of Lampung.
2. Mrs. Dr. Rr. Erlina S.E., M.Si. as Chairman of Management Major.
3. Mr. Dr. Irham Lihan, S.E., M.Si., as advisor for the willingness to provide guidance, knowledge, direction and advice given in the preparation of this thesis. 4. Mrs. R.A. Fiska Huzaimah, S.E., M.Si., as co-advisor, who had provided guidance, support, motivation and input for the finalization of this thesis.
4. Mr. Prakarsa Panjinegara, S.E., M.E., as Primary Examiner who gives suggestions, criticism, and advices that has been given to this thesis so it can be completed.
5. Mrs. Dr. Ernie Hendrawaty, S.E., M.Si., and Igo Febrianto, S.E., M.Sc., as the Second and Third Examiners in proposal and result seminar, that already spent their time to give the researcher inputs for her undergraduate thesis.
6. Mrs. Dr. Sri Hasnawati, S.E., M.Si., as academic advisor for every advices in college life.
7. All lecturers and academic staffs of Faculty of Economics and Business, Management Major, University of Lampung.
8. My dearest family, who always be the support system for the researcher. Thank you for the endless prayers, motivation, suggestion, and advices so the researcher able to finish this undergraduate thesis. Thank you for everything.
9. Management BC 2015. Astri, Muti, Karina, Icha, Cia and Silvia who made the class enjoyable. Thank you for all sweet memories together from the beginning until the end of my college life. See you on top.
10. My beloved friend, Yoshua, who is always there through ups and downs, for all the jokes, laughter and support. Thank you for having my back. Let's be friends until we're old and see you on top.
11. Ardel and Kikay. Thank you for becoming my partner from proposal seminar. Let's make a good story in the future girls.
12. Sekar and Annisa, thank you for the support and becoming a good listener for all of my stories. Let's be friends until we're old and see you on top.
13. The best team on my KKN journey in Desa Cahyou Randu. Thank you for all your help, food, and the great time we had for 40 days.
14. All parties who gave support for the researcher during the writing of this undergraduate thesis. May God grant mercy and blessings and may this undergraduate thesis become useful and meaningful.

The researcher realized that the writing of this undergraduate thesis is still far from perfect. Hopefully, this script would give a positive contribution for those who are interested to conduct the further research.

## TABLE OF CONTENTS

Page
TABLE OF CONTENTS ..... i
LIST OF TABLES ..... iii
LIST OF FIGURES. ..... iv
LIST OF APPENDIX ..... v
I. INTRODUCTION .....  1
A. Background .....  .1
B. Problem Formulation ..... 11
C. Purpose Of The Research ..... 11
D. Research Benefits ..... 12
II. LITERATURE REVIEW ..... 13
A. Efficient Market Concept ..... 13
B. Return ..... 18
C. Holiday Effect ..... 20

1. Pre Holiday Effect ..... 20
2. Post Holiday Effect ..... 21
D. Summary of Previous Research ..... 22
E. Conceptual Framework. ..... 24
F. Hypothesis Development. ..... 26
III. RESEARCH METHODOLOGY ..... 31
A. Research Design ..... 31
B. Population and Sample ..... 32
C. Data Collection ..... 32
D. Operational Definition of Variables ..... 33
3. Dependent Variable ..... 33
4. Independent Variable ..... 34
E. Analysis Method ..... 35
5. Descriptive Statistics Analysis ..... 35
6. Normality Test ..... 35
7. Time Series Data Regression Model Analysis ..... 35
F. Hypothesis Test ..... 35
IV. RESULT AND DISCUSSION ..... 40
A. Classical Assumption Test Analysis ..... 40
8. Heteroscedasticity Test. ..... 40
9. Multicollinearity Test ..... 44
10. Normality Test ..... 46
B. Analysis of Stock Market Performance ..... 50
11. Performance of Stock Market Index ..... 50
12. Performance of Stock Market Return. ..... 54
13. Performance of Trading Volume Activity ..... 57
C. Hypothesis Test ..... 61
14. Stock Market Index ..... 62
15. Stock Market Return ..... 66
16. Trading Volume Activity ..... 69
V. CONCLUSION AND SUGGESTION. ..... 75
A. Conclusion ..... 75
B. Suggestion ..... 76
BIBLIOGRAPHY APPENDIX

## LIST OF TABLES

Table Page
1.1. Increase of Prices of Food Materials in Indonesia's Market ..... 4
4.1. Result of Multicollinearity Test For Market Index ..... 44
4.2. Result of Multicollinearity Test For Market Return ..... 45
4.3. Result of Multicollinearity Test For Trading Volume Acitivity ..... 46
4.4. Result of Normality Test For Market Index. ..... 47
4.5. Result of Normality Test For Market Return ..... 48
4.6. Result of Normality Test For Trading Volume Activity. ..... 49
4.7. Performance of Stock Market Index In Tadawul Stock Exchange In Year 2014- 2018 ..... 51
4.8. Performance of Stock Market Index In Indonesia Stock Exchange In Year 2014-2018 ..... 51
4.9. Difference of Performance of Stock Market Index In Before and After Eid-Al Fitr In Year 2014-2018 ..... 52
4.10. Difference of Performance of Stock Market Index In Tadawul Stock Exchang3 and Indonesia Stock Exchange In Year 2014-2018 ..... 53
4.11. Performance of Stock Market Return In Tadawul Stock Exchange In Year 2014-2018 ..... 54
4.12. Performance of Stock Market Return In Indonesia Stock Exchange In Year 2014-2018 ..... 55
4.13. Difference of Performance of Stock Market Return In Before and After Eid-A1 Fitr In Year 2014-2018 ..... 56
4.14. Difference of Performance of Stock Market Return In Tadawul Stock Exchange and Indonesia Stock Exchange In Year 2014-2018. ..... 57
4.15. Performance of Trading Volume Activity In Tadawul Stock Exchange In Year 2014-2018 ..... 58
4.16. Performance of Stock Market Return In Indonesia Stock Exchange In Year 2014-2018 ..... 58
4.17. Difference of Performance of Trading Volume Activity In Before and After Eid-Al Fitr In Year 2014-2018 ..... 59
4.18. Difference of Performance of Stock Market Return In Tadawul Stock Exchange and Indonesia Stock Exchange In Year 2014-2018. ..... 60
4.19. Result of Regression Test of B Coefficient, T-Value and Significance Value For Market Index ..... 63
4.20. Result of Regression Test of B Coefficient, T-Value and Significance Value For Market Return ..... 66
4.21. Result of Regression Test of B Coefficient, T-Value and Significance Value For Trading Volume Activity. ..... 70

## LIST OF FIGURES

Figure Page
2.1. Conceptual Framework ..... 26
4.1. Result of Heteroscedasticity Test For Market Index. ..... 41
4.2. Result of Heteroscedasticity Test For Market Return. ..... 42
4.3. Result of Heteroscedasticity Test For Trading Volume Activity ..... 43

## LIST OF APPENDIX

Appendix Page

1. Jakarta Composite Index In Year 2014-2018 ..... A-1
2. Tadawul All Share Index (TASI) In Year 2014-2018 ..... A-2
3. Market Return of Indonesia Stock Exchange In Year 2014-2018 ..... A-3
4. Market Return of Tadawul Stock Exchange In Year 2014-2018 ..... A-4
5. Trading Volume Activity of Indonesia Stock Exchange In Year 2014-2018 ..... A-5
6. Trading Volume Activity of Tadawul Stock Exchange In Year 2014-2018 ..... A-6
7. Comparative Stock Market Index (JCI and TASI are combined) Between Beforeand After Eid-Al Fitr Holiday.A-7
8. Comparative Stock Market Return (JCI and TASI are combined) Between Beforeand After Eid-Al Fitr Holiday.A-8
9. Comparative Trading Volume Activity (JCI and TASI are combined) BetweenBefore and After Eid-Al Fitr HolidayA-9
10. Comparative Stock Market Index (data before and after Eid-Al Fitr arecombined) Between Tadawul and Indonesia Stock ExchangeA-10
11. Comparative Stock Market Return (data before and after Eid-Al Fitr arecombined) Between Tadawul and Indonesia Stock ExchangeA-11
12. Comparative Trading Volume Activity (data before and after Eid-Al Fitr arecombined) Between Tadawul and Indonesia Stock ExchangeA-12

## I. INTRODUCTION

## A. Background

Capital market as one of the economic instruments is certainly influenced by the environment, both economic and non-economic, in macro and micro scale. Micro environmental conditions, including company performance, changes in corporate strategy, and the announcement of financial statements or corporate dividends which can affect the fluctuation in capital market. While the macroeconomic environment includes macroeconomic policies such as monetary policy, fiscal policy and government regulation in real and financial sectors in which it will affect the fluctuation in the capital market.

Investors in the capital market always try to get profits (return) from the trading activities they do in the capital market. Investors' trading activities are in the form of buying and selling shares that are done to obtain positive stock returns and avoid negative stock returns. They buy shares when the prices are low (decrease), and they will sell their shares when the prices have increased. The main reason investors invest in the capital market is to gain profits at a certain level with certain sacrifices. The profits that businesses will receive in
their investments are often referred to as stock returns. Returns are in the form of dividends and capital gains (Tandelilin, 2001).

Dividend is a portion of the profits distributed to shareholders. While capital gain is the profit obtained by investors from the selling price above the purchase price. For investors who choose short-term investments, it will prioritize capital gains to gain profits. Capital gains obtained from stock investments allow investors to earn large amounts of profit with a relatively short time due to fluctuating stock price movements (Sunariyah, 2004).

The fluctuation in the capital market can create an efficient market condition that is able to react quickly to new information that is reflected in the price of securities. Efficient markets will quickly react to new information that can form a new equilibrium price. The market is said to be efficient when the prices formed in the market are a reflection of existing information. In an efficient market, there is no possibility of obtaining an abnormal rate of return, although in practice there are things that deviate, which is called capital market anomaly. Gumanti and Utami (2002) mentioned four kinds of market anomalies. They are firm anomalies, seasonal anomalies, event anomalies, and accounting anomalies.

Seasonal anomalies that exist today are the January effect, Monday effect, and holiday effects. Some examples of holiday effects that exist in Indonesia is a holiday in celebrating religious holidays such as Chinese new year, Eid-Al Adha, Eid-Al Fitr, Vesak, Hindu people's Day of Silence and Christmas.

But amongst several religious holidays, Eid-Al Fitr holiday is the longest holiday. If the other holiday lasts only one to two days, Eid-Al Fitr holiday can reach one week.

Indonesia is a Moslem majority country with approximately $85 \%$ of its 250 million citizens are following Islamic faith. Hence, it's understandable if Indonesia is called as one of the Moslem countries in the world. By this condition, Moslem holy days are always greatly celebrated in Indonesia, especially the Eid-Al Fitr day. This resulted the condition that Eid-Al Fitr holiday is the longest religious holiday in Indonesia. On May 2018, Mr. President Joko Widodo announced that Eid-Al Fitr holiday in 2018 is 10 days long, which is from June $11^{\text {th }}$ until June $20^{\text {th }}, 2018$.

Eid-Al Fitr is celebrated after Moslems experienced a month of Ramadan event. During Ramadan, there are changes in people's habit, especially in their consumption behavior. In Ramadan, Moslem people do a fasting for more than 12 hours a day, in a month. This condition is supposed to reduce their consumption behavior, especially for food. But in fact, Ramadan and fasting activities do not really reduce people's consumption behavior. During Ramadan, people are still purchasing the same amount of food that they usually have. Most people even spend more money in Ramadan, which is allocated for having a breakfasting together with their relatives. Restaurant businesses tend to have more revenues during the event of Ramadan because of this tradition. This new habit of Moslem people results an increase in people's demand for food. By this
condition, it results in the increase of food material prices in market, and the increase is continued until the Eid-Al Fitr day.

The consumer behavior of buying more products in Ramadan until Eid-Al Fitr is supported by the data given by The National Strategic Food Price Information Center (PIHPS). The high demand of the community as well as the allowance for traders and distributors to seek profits triggered an increase in food prices a day before Eid 2018. The National Strategic Food Price Information Center (PIHPS) noted an increase in food prices by $43 \%$ on the last day of fasting on June 142018 compared to the position of the previous day. Table 1.1 shows the increase of prices of food materials in a day before Eid-Al Fitr.

TABLE 1.1. INCREASE OF PRICES OF FOOD MATERIALS IN INDONESIA'S MARKET

Naik Turun Harga Pangan (14 Juni 2018)


Source: databooks.co.id
Table 1.1 shows the increase of prices of food materials in Indonesia's market in a day before Eid-Al Fitr. It reflects the impact of Eid-Al Fitr on the
price of food materials. Because people tend to buy more foods during Ramadan until Eid-Al Fitr, sellers increase the food materials' prices to gain more profit. But the increase of prices does not reduce the consumption of the consumers. Consumers keep buying the food materials even though the price is relatively much higher than it usually is.

It is interesting to see whether the increase of prices during Ramadan can also lead to the increase of stock prices in the capital market. This research aims to see whether there is also an increase in stock prices and the demand for stocks at around Eid-Al Fitr (Ramadan and post Eid-Al Fitr). Moreover, Ramadan event will be closed by Eid-Al Fitr, whose celebration is always greatly celebrated in Indonesia. Eid-Al Fitr day is only for 2 days, but the public holiday which is regulated by government lasts for a long day, which is one week or longer. In 2018, Eid-Al Fitr public holiday lasts for 10 days, in anticipation of traffic jam during the flow of homecoming.

The condition that Eid-Al Fitr holiday is long causes the closing of capital market also for a long day. Based on the previous research about the behavior of investors at around holiday, it is said that stock prices usually increase after holiday, because people tend to buy stocks before holiday and sell them after the holiday. The purchase of stocks before holiday is increased because investors try to anticipate the long holiday in which the capital market will be closed.

Kim and Park (1994) in their research conducted in the US, UK and Japanese capital markets found that there was a holiday effect on stock returns.

The holiday effect is explained by the results of stock return on a pre-holiday trading day or on pre-holiday trading day. They found an evidence that there was an effect of holidays on stock returns in the three main capital markets in the United States, namely YSE, AMEX, and NASDAQ. In addition, the impact of holidays also occurs in the British and Japanese capital markets.

Liano et. al (1992) in Hamid (2003) conducted a study using the regression method for dummy variables to obtain results that the average stock return on a trading day after a holiday is a significant low or negative in contrast to the average stock return obtained on other trading days so that the results obtained that after holidays affect the stock return (post holiday effect).

The acquisition of significant high and positive returns on the trading day before the holiday is caused by several factors such as the psychological factors of investors who have a desire to trade transactions by buying shares, especially when the market will close (closing market effect) on the trading day of the stock before the holiday (Hamid, 2003).

Stock purchases made by investors are profit taking actions to anticipate holidays where stock trading does not occur (Ariel, 1990 in Kim and Park, 1994). Furthermore, Ariel explained that if market timing activity is on the day ( -2 ) before the stock holiday offered by the buyer (bid) is more than the stock offered by the seller (ask) on the day ( -1 ) before the holiday then the acquisition of stock returns from days ( -2 ) to days ( -1 ) before the holidays will be positive. In addition to the research conducted by Hamid (2003), the investment decision of an individual investor to take a short-position position is to wait for the right
time to trade shares, either to sell or buy shares, which can also affect the positive stock return before the holidays.

To investigate the market effects caused by Eid-Al Fitr, this research also focuses on a country where religion constitutes an integral part of society, namely Saudi Arabia. This country is an ideal setting in which to study this phenomenon, for several reasons. Firstly, Moslems constitute $97 \%$ of population. Also, Saudi Arabia is a conservative society that has adopted the most austerely puritanical form of Islam. The country also plays a central role in the international Moslem community as the host of the two holy cities of Makkah and Medina and this is a paramount to the country identity. Secondly, although Islamic finance services industry is expanding rapidly in the homeland of Islam, non Shariah-compliant stocks are available on the market and there is no legal obligation to invest in these securities.

Unlike other countries with high proportion of Moslem population Saudi stock market does not offer a Shariah compliant index such as the Malaysian SI index for example. The only index that is existed in Tadawul Stock Exchange is Tadawul All Share Index, which is the major stock market index which tracks the performance of all companies listed on the Saudi Stock Exchange.

This research aims to investigate whether there is an increase or decrease in the activities in capital market at before and after Eid-Al Fitr. The activities in capital market is described by the change in stock prices, return, and trading volume activity. Thus, this research will use Tadawul All Share Index as
the subject which represents the stock prices, to investigate the Eid-Al Fitr holiday impact in Saudi Arabia, and Jakarta Composite Index as a subject to investigate the Eid-Al Fitr holiday impact in Indonesia. Tadawul All Share Index (TASI) and Jakarta Composite Index (JCI) are used because these indices describe the stock prices of all companies in both countries.

Research about the impact of Eid-Al Fitr on stock returns in Indonesia Stock Exchange has been done by Hamid (2003). In his research, he attempts to analyze the effect of holidays on stock returns using daily stock returns from the composite stock price index (CSPI) on the Indonesia Stock Exchange. The JCI is one of the stock price indices used by Indonesian capital market players as a reference for the development of activities in the capital market because it can show general stock price movements involving all prices of shares listed on the stock exchange (Anoraga and Pakarti, 2001) and is a value for measure stock performance (Ang, 1997).

This study is to investigate the effect of Eid-Al Fitr on stock market performance and to differentiate the stock market performance of two capital markets, which are Indonesia Stock Exchange and Tadawul Stock Exchange. The Eid-Al Fitr effect is seen by investigating the stock market performance in 10 days before and 10 days after Eid-Al Fitr holiday.

Gorreti (2004) also did a research which aims to identify the impact of Eid-Al Fitr holidays on stock trading in Jakarta Stock Exchange and sectors affected by Eid-Al Fitr holiday in 1993 - 2003. The data used in this study is secondary data from companies listed on the Jakarta Stock Exchange during the
period of study from January 1999 to December 2003, the stock used as research samples were shares that were actively traded. The result shows that there is no effect of Eid-Al Fitr holiday on stock return.

Yessica (2011) also investigated the impact of Eid-Al Fitr holiday on stock return in Indonesia Stock Exchange in period 2006 - 2010. The research aims to find out whether Eid-Al Fitr effect occurs in Indonesia Stock Exchange, by testing whether there is difference of return and trading volume between the first week and second week before Eid-Al Fitr holiday. The sample used in this study is the stock of Composite Stock Price Index (CSPI) for the period 20062010. The author uses Analysis of Variance (ANOVA) test to find out whether there is difference of average return and its volume between first week and second week before Eid-Al Fitr holiday. The result shows that the impact of EidAl Fitr on stock returns does not exist in Indonesia Stock Exchange in the period 2006-2010.

Seyyed et al. (2005) in Irfan et al. (2017) examine the behavior of the Saudi Arabian stock market in Ramadan during the period of 1985-2000. They find no significant change in mean return but a noticeable decline in volatility. On the other hand, Jedrzej et al. (2011) have results for Saudi Arabia that most of the Islamic markets have historically experienced large stock price increases during the holy month. Supporting Jędrzej et al.'s findings, Irfan et al. (2017) found that Eid-Al Fitr has the highest mean returns on stocks in Asian markets (including Tadawul Stock Exchange in Saudi Arabia), compared with the other Moslem holy days. As Eid-Al Fitr is followed by the Holy month of Ramadan,
but returns of both events in Asian markets are showing a huge difference. This is supporting to their argument that the spiritual features of fasting are countered by physical hardship during Ramadan.

Researches about the impact of Eid-Al Fitr on stock returns in Indonesia Stock Exchange and Tadawul Stock Exchange which are done using different methods, have shown different results. Moreover, the period of those researches are up only to year 2017, in which Eid-Al Fitr holiday in the two countries does not last for more than 7 days long. Meanwhile, in 2018, in both countries, Eid-Al Fitr holiday are extended to 10 days, which means that the stock exchange closed in longer days. Based on that background, it is interesting to investigate and compare the effect of Eid-Al Fitr holiday in Indonesia Stock Exchange and Tadawul Stock Exchange, whether the extension of Eid-Al Fitr holiday gives impact on stock performance in both countries.

Several researches have shown that Eid-Al Fitr holiday has no impact on stock market returns or there is no significant impact of Eid-Al Fitr holiday on stock market returns. But, in fact, although the stock market returns does not significantly change, it does not mean that the stock market performance does not also significantly changed. By this condition, this research aims to see the impact of Eid-Al Fitr holiday on stock market performance, which is investigated through stock prices, return, and Trading Volume Activity.

Thus, from the explanations above, this research is titled "Impact of Eid-Al Fitr on Stock Market Performance: A Comparative Study Between Indonesia Stock Exchange and Tadawul Stock Exchange".

## B. Problem Formulation

Based on the background above, then the author formulate problem as
follows:

1. Does Eid-Al Fitr have impact on stock market index
2. Is there impact of different capital market (Indonesia Stock Exchange and Tadawul Stock Exchange) on stock market index performance
3. Does Eid-Al Fitr have impact on stock market return
4. Is there impact of different capital market (Indonesia Stock Exchange and Tadawul Stock Exchange) on stock market return performance
5. Does Eid-Al Fitr have impact on trading volume activity
6. Is there impact of different capital market (Indonesia Stock Exchange and Tadawul Stock Exchange) on trading volume activity performance

## C. Purpose of The Research

The purpose of this study is to answer the questions contained in the formulation of the problem, among others:

1. To figure out whether Eid-Al Fitr holiday have impact on stock index
2. To figure out whether there is impact of different capital market on stock market index
3. To figure out whether the Eid-Al Fitr holiday have impact on stock market returns
4. To figure out whether there is impact of different capital market on stock market return
5. To figure out whether the Eid-Al Fitr holiday have impact on Trading Volume Activity
6. To figure out whether there is impact of different capital market on trading volume activity

## D. Research Benefits

The results of this study are expected to provide benefits to:

1. Analysts and investors will have an information whether there is an Eid-Al Fitr effect on stock prices in Indonesia Stock Exchange and Tadawul Stock Exchange.
2. Analysts and investors will have an information whether there is an Eid-Al Fitr effect on stock returns in Indonesia Stock Exchange and Tadawul Stock Exchange.
3. Investors will have knowledge whether there is an Eid-Al Fitr effect on Trading Volume Activity in Indonesia Stock Exchange and Tadawul Stock Exchange.
4. Investors can use the information as a guidance for their investment activities.
5. Academics can take advantage of this research as a real case that can be used in financial management research and can complement other studies and can develop further research.

## II. LITERATURE REVIEW

## A. Efficient Market Concept

In the modern theory of finance, a good starting theory is that of efficient capital markets. The term "efficiency" denotes the fact that investors have no opportunity of obtaining abnormal profits from capital market transactions as compared to other investors, they cannot beat the market. So, the only way an investor may obtain a larger profit is by investing in higher risk assets.

Efficient Market Hypothesis (EMH), is very controversial and of particular interest for financial economists, professors and researchers as confirmed by the large body of specialized literature. Even if many tried to find the truth behind the EMH, no ultimate conclusion exists. There are many opposing opinions regarding this theory; for each article that confirms the hypothesis, there is another that invalidates it. This is true in any economy, without exception, whether it is an emerging economy or a developed one. As a result, the question of whether the markets are efficient or not still remains unanswered.

The hypothesis has its roots in the 1960s when most of the research studies considered the capital markets to be efficient, starting with Fama (1965)
and Samuelson (1965). During the next decades, more and more studies started to invalidate the hypothesis in all its three forms, weak, semi-strong and strong. In 1970, Eugene Fama published in his article, besides the definition of efficient markets, also the distinction between the three forms of efficiency - weak, semistrong and strong. The efficient market was defined as "a market with great number of rational, profit-maximizers actively competing, with each trying to predict future market values of individual securities, and where current important information is almost freely available to all participants".

Starting with Fama, numerous other researchers came with different definitions. In 2003, Malkier defined an efficient capital market as being a market in which "prices fully reflect all known information, and even uninformed investors buying a diversified portfolio at the tableau of prices given by the market will obtain a rate of return as generous as that achieved by the experts".

Returning to Fama (1969 and 1970), the weak form of Efficient Market Hypothesis (EMH) was presented as the state of fact in which the current prices of financial assets incorporate, at any moment, all the existing historical financial information. As a result, the theory of Efficient Market Hypothesis supports the idea that investors cannot obtain abnormal profits from investing in these financial assets. This EMH form implies that prices will exhibit random walk. As compared to the weak form of EMH, the semi-strong form assumes that financial assets' prices reflect, at any moment, all the information existent on a market, including historical prices and other historical information (which means
this form incorporates also the weak form of EMH), and, additionally, the prices change rapidly and without biases to incorporate any other new public information released on the market.

In case semi-strong form of EMH is present on a capital market, neither technical nor fundamental analysis can determine the way an investor should split his funds so that the obtained profitability is higher than that achieved in case of investment in a random portfolio of financial assets. The strong form of EMH assumes that prices incorporate all the available information on a market, which includes: historical financial information (weak form), all new public information (semi-strong form) and all private information regarding a financial asset. During the following years and until nowadays, many different opinions exist regarding the efficiency of the capital markets.

There are so many different views that it is worth reviewing them and see if there is a predominant one that can prevail over the others. A large variety of studies were elaborated to test all the three types of EMH. Most of them invalidated the semi-strong and the strong forms of EMH, forms that are not supported by financial data, while opinions were split for weak form of EMH (including random walk theory). Few of the weak form studies showed that the abnormal returns are mainly caused by chance, the probability of over-reaction being approximately the same as the probability of under-reaction - supporting the weak form of EMH.

Another common conclusion is that the anomalies tend to disappear as changes in used models occur, so that they are caused by the methodology
implied. Most of the papers are based on event studies. Some of them analyze the reaction on the first few days after distinct types of announcements, in the idea that the prices of financial assets quickly react to new information, so that the efficiency of capital markets is confirmed. Still, other category of studies have analyzed a longer time horizon, based on the fact that the prices gradually adjust to new information released, thus invalidating the EMH on medium and long term.

An efficient market theory is still an important part of modern finance. Its empirical evidence is ambiguous, but the concept itself is sound. The EMH may be applied to capital markets. The present capital market efficiency is primarily associated with the cost efficiency, while other markets are often analyzed from the perspective of the allocation efficiency (Blume, Durlauf, 2008). In general, an efficient stock market is a market where stock prices reflect fundamental information about companies. In such a case, the market value of the company changes in a way very similar to that of the intrinsic value of a company. These changes are not consistent with the value and do not restrain from trading financial assets.

The differences in investor awareness and uneven transaction costs prevent fundamental changes in value to be completely and immediately reflected in market prices (Goedhart, Koller, Wessels, 2010). However, if markets are efficient, changes in asset prices cannot be reflected in algorithms, while excess return is gained as a success rather than an outcome of a correct prediction. Allen, Brealey and Myers (2011) defined a market as efficient when it
was not possible to earn a return higher than the market return. In other words, the value of shares reflects the fair value of the company and is equal to the future cash flows discounted by an alternative cost of capital. Eakins and Mishkin (2012) argued that an efficient market was a market where asset prices fully reflected all information available. Generally, the essence of an efficient market is built on two pillars: 1) in efficient markets, available information is already incorporated in stock prices; 2) in efficient markets, investors cannot earn a risk-weighted excess return.

Considering the information reflected in market prices, market efficiency is usually broken down into three levels. Weak, semi-strong, and strong forms of market efficiency are distinguished. In weakly-efficient stock markets, the current stock price reflects all information related to the stock price changes in the past. Such information includes data on previous prices, trading volume, etc. Based on the above-mentioned information, it becomes then impossible to make excess profit in a stock market. Thus, if the market is weakly, efficient, technical analysis yields no excess return. In semi-strongly efficient markets, current stock prices reflect not only information about historical prices but also all current publicly available information, e. g., announcements of acquisitions, dividend pay-outs, changes in accounting policy, etc. Finally, in strongly efficient markets, current stock prices reflect all possible information which does not necessarily have to be public. This form of market efficiency implies that it is impossible to earn excess profit while trading on insider information which seems to be unlikely (Malkiel, 2011). On the other hand, some
authors see the strong form of market efficiency as possible since insider trading is not legal (Schwert, 2003).

Many empirical studies have confirmed the weak form of market efficiency in different capital markets. In addition, this form of market efficiency is among assumptions in the valuation of stocks and options (Palan, 2004). In turn, the results of the semi-strong market efficiency studies vary considerably, while the strong form of market efficiency has not been broadly investigated, and the obtained results indicate market inefficiencies (Mishkin et al., 2012).

## B. Return

Return is the total gain or loss experienced on an investment over a given period (Gitman, $13^{\text {th }}$ edition). In investing in stocks, an investor always expects a return or profit. Stock return is the level of profit enjoyed by investors for an investment made. The rate of return received by an investor from shares traded in the capital market (the company's stock goes public) is usually called return. The stock market does not promise a definite return for investors. However, some components of return on shares that allow investors to make profits are dividends, bonus shares, and capital gains (Ang, 1997).

Return is the result obtained from investment. Return can be in the form of a realized return that has occurred or an expected return that has not yet occurred but which is expected to occur in the future. Return realization (realized return) is a return that has occurred, calculated based on historical data. Return realization is used as the basis for determining the expected return and future
risks. Expected return is a return that is expected to be obtained by investors in the future and its nature has not yet occurred. While the return of realization is a return that has already occurred (Jogiyanto, 2000). The purpose of investors in investing is to maximize returns, without forgetting the investment risk factors that must be faced. Return is one of the factors that motivate investors to invest and is also a reward for the courage of investors to bear the risk of investment. Investment return sources consist of two main components, namely yield and capital gain (loss).

Yield is a return component that reflects cash flow or income obtained periodically from an investment. Whereas capital gain (loss) as the second component of return is an increase (decrease) in the price of a securities (can be stocks or long-term debt securities), which can provide profits (losses) to investors. In other words, capital gain (loss) can also be interpreted as a change in the price of securities (Tandelilin, 2001).

The nature of the return depends on the form of the investment. For instance a company that invests in fixed assets and business operations expects returns in the form of profit, which may be measured on before -interest, before tax or after tax basis, and in the form of increased cash flows. An investor who buys ordinary shares expects returns in the form of dividend payment and capital gains (share price increases). Again, an investor who buys corporate bonds expects regular returns in the form of interest payments (Frimpong, 2010).

Investors invest for anticipated future returns, but those returns can rarely be predicted precisely as there will almost always be risk associated with
investments. Actual or realized returns will almost always deviate from expected returns anticipated in the beginning of the investment period. It is assumed that investors will prefer investments with the highest expected return suitable to their risk aversion (Bodie et al. 2008).

The rate of return is measured by the percentage of stock price changes. According Husnan (2001) in Kuncoro Hadi (2004) measures the rate of return on a stock can be obtained in this way, which is:

$$
r=\frac{P_{t}-P_{t-1}}{P_{t-1}}
$$

where:
$R=$ Return of stock at time t ;
$P t=$ Price of stock at day $t ;$
$P t-1=$ Price of stock at previous day.

## C. Holiday Effect

1. Pre holiday effect

The influence of stock trading days on stock returns is that stock returns in each day change. This is due to differences in the desire of individual investors to sell or buy shares on certain days or trading activities change from day to day so that the level of sales and purchases will also change every day. With this change in the level of sales and purchases, stock prices will experience increases and decreases while affecting stock returns (Supriyono and Wibowo, 2008). Some previous studies have shown that
transaction activities that occur during the holidays and after holidays experience abnormal returns resulting in the term holiday effect. Lakonishok and Smidt (1988) in Liano, et al (1992) in Hamid (2003) define the meaning of holiday is: "... a day when trading would normally have occurred but did not". According to Ariel (1990) in Tangjiprom (2010), it was explained that stock trading before the holidays had an abnormal return as usual during normal trading. Acquiring returns before holidays shows a significant difference in returns compared to the return on other trading days.

Lakonishok and Smidt (1988) in Chomariah (2004) found that the average stock return before holidays is higher than the normal daily return rate. Fields (1934) also found that there was the highest proportion in the selection of stock trading days before holidays. Meril (1966) also found that the frequency is disproportionate to the superiority of the Dow Jones Industrial Average on the day before holidays during the period 1897 to 1965.

Lakonishok and Smidt (1984) also had a research which investigated the holiday effect which is Christmas, and reported that price increases apply to all companies (from large to small) on the last trading day before Christmas. They argued that this increase concerns all stocks regardless the level of capitalization. Coursey and Dyl (1986) who in their research used laboratory methods of market experiments, inserted holidays and patterns of price results. The results are consistent with the fact that stock prices on the day before the trading holiday are significantly higher than the other days.
2. Post holiday effect

Liano et.al, (1992) in Hamid (2003) explained that post-holiday effects (post holiday effect) occur on trading days after holidays. On trading days after the holiday the stock return is negative and low compared to the return on other trading days.

Negative stock returns on trading days after holidays and significantly different compared to other days are caused by information (bad) factors that have been entered and absorbed by the market if the announcement is made during holidays (Arumugan, 1999 in Hamid, 2003). Increased trading activities carried out by individuals on Mondays and there is a tendency that individual investors tend to make sales rather than purchases, this is one factor that can explain the occurrence of weekend effects (Lakonishok and Maberly, 1990 in Christanto, 2009). As a result of sales that are larger than purchases, the stock price tends to decrease so that the return will be low or negative.

## D. Summary of Previous Research

In this section, there will be discussed on several previous researches done to examine the impact of Eid-Al Fitr. The study is particularly concerned with the measurement of volatility associated with the phenomenon of conditional variance. Some of these studies are:

1. Irfan Ali et. al's research

Irfan Ali, Waheed Akhter and Namrah Ashraf (2014) had done research about the impact of Moslem holy days on stock returns in Asian stock market. The study attempts to isolate the impact of Muslim Holy Days from Gregorian calendar anomalies. The results reveal that Eid-Al Fitr effect is found in Asian markets and has significant positive effect on stock returns in Asian stock market, including Saudi Arabia
2. Hinawati's research

The research conducted by Hinawati (2016) aims to identify the difference of stock returns before and after Eid-Al Fitr holidays on trade in Jakarta Stock Exchange in year 2009-2014. Independent t-test has been used to test the research and hypotheses. The findings offer that there is effect of Idul Fitr Holiday. The results of different tests for each year show that the average return of the first week before the Eid Fitr holiday tends to be lower than the average of the other week's return and the average return of the first week after the Eid-Al Fitr holiday tends to be higher than the average return for another week. The results of statistical tests for significance levels per year reveal random results, if observations are made then the results of this pattern are almost similar to the pattern of the December effect and January effect where returns tend to fall before the holiday and return will rise after the holiday.
3. Elyanti's research

Elyanti's research (2016) aims to determine whether there is influence of Eid-Al Fitr on stock return in Indonesia Stock Exchange. The sample used
in this study are stocks included in LQ - 45 during 2010-2014. The method used to test the effect of holiday effect on stock returns in the Indonesian Stock Exchange is t -test, with the preferences will use the ten days before and ten days after Eid holidays. The result of research during the period of 2010 to 2014 concludes that there is an influence starts from 6 days before the Eid-Al Fitr Holiday.
4. Indriastuti's research

Indriastuti (2018) in this study aims to know the effect of Eid Al-Fitr holiday to abnormal return, security return variability and trading volume activity at Jakarta Islamic Index by taking 16 companies. The observation period is 2013-2016. The method used by this research is event study. The research period takes 6 days, consisting of 3 days before the event and 3 days after the event. While the instrument of method used for research is paired sample $t$-test. The result showed that there are insignificant differences among abnormal return and security return variability before and after Eid-Al Fitr holiday. But there is significant different among trading volume activity before and after Eid-A1 Fitr holiday.

## E. Conceptual Framework

Since the mid-1970s, there has been an explosion of empirical studies documenting anomalous regularities in security rates of return. One of the puzzling empirical findings reported in recent studies is the presence of abnormally high stock returns on the day before holidays. This paper undertakes
a further investigation of this holiday (Eid-Al Fitr holiday) effect in stock returns. The acquisition of high and positive stock returns on the pre-holiday effect day is significantly different compared to the acquisition of other stock return days on other trading days because investors take profit-taking to deal with holidays (Ariel, 1990 in Kim and Park, 1994) In addition there are psychological factors that encourage investors to bid prices or buy stock prices offered by sellers so that stock transaction activities increase.

On the other hand, low and negative stock returns occur in the first day of trading transactions after holidays compared to the average stock return of other trading days. This is more due to the lack of enthusiasm of the capital market and the mood of investors in investing their capital on post-holiday trading days so that it has an impact on low exchange performance (Manurung, 2001 in Latifah, 2012). Another study conducted by Prasetyo (2006) in Latifah (2012) revealed that investors tend to sell shares rather than buy stock results in increased stock offering so that stock prices and stock returns decline.

Hamid (2003) in Latifah (2012) revealed that investors conduct stock transactions by purchasing stocks before holiday to obtain a positive stock return in anticipation of a holiday where the market will close. The anticipation of this holiday causes an increase in market return and the trading volume activity before Eid-Al Fitr day. Even though the market return did not significantly change before and after Eid-Al Fitr, does not mean that the stock prices did not significantly change too. Thus, this research will investigate the change in stock
prices, market return and trading volume activity in weeks before Eid-Al Fitr and weeks after Eid-Al Fitr.

FIGURE 2.1. CONCEPTUAL FRAMEWORK


## F. Hypothesis Development

Chan, et al (1996) found that religious holidays are more influential against stock returns rather than national holidays against stock returns. Difference of stock return before the religious holiday and before the national holiday happens because on religious holidays, people will spend more money to meet the needs of religious celebrations so that money which are invested into fewer days than usual. While before public holidays, people tend to purchase transactions and the sale of shares like a normal day because on public holidays of the community not too enthusiastic about spending the money so prefer invest the funds they have.

Capital market participants generally prefer to hold cash before Idul Fitri holiday ahead of long holiday so do the action selling, in addition they also
tend to release shares they have facing a weeklong holiday to commemorate the Eid-Al Fitr.

Based on the explanation above and several previous studies as described previously, the variables used are stock market index in Indonesia Stock Exchange and Tadawul Stock Exchange in before and after Eid-Al Fitr holiday, stock market return in Indonesia Stock Exchange and Tadawul Stock Exchange in before and after Eid-Al Fitr holiday, and trading volume activity in Indonesia Stock Exchange and Tadawul Stock Exchange in before and after EidAl Fitr holiday.

## 1. Stock market index in before and after Eid-Al Fitr holiday

Prasetyo (2006) in Latifah (2012) in his research showed that stock returns which tend to be low and negative on trading days after holidays are more due to mood factors of investors who tend to sell shares rather than buying shares so that stock offers increase and result in stock prices decreasing. The total stock prices are defined as the stock market index, therefore the stock market index are also affected by the change of stock prices in before and after Eid-Al Fitr holiday.
$H_{l}$ : There is impact of Eid-Al Fitr on stock market index

## 2. Stock market index in Indonesia Stock Exchange and Tadawul Stock

## Exchange

Indonesia is one of countries whose citizens are majority Moslems, which constitute about $80 \%$ of the population. Meanwhile, in Saudi Arabia,
the Moslem population is as much as $97 \%$ of its citizens. It means that the Eid-Al Fitr is celebrated greatly in both countries. This research aims to see if there is impact of different capital markets (Indonesia Stock Exchange and Tadawul Stock Exchange) on stock market index.
$H_{2}$ : There is impact of different capital market (Indonesia Stock Exchange and Tadawul Stock Exchange) on stock market index

## 3. Stock market return in before and after Eid-Al Fitr holiday

Ariel (1990) in Latifah (2012) revealed that the acquisition of positive stock returns before holidays is because investors will take profit taking actions to anticipate holidays where there is no stock trading. Sukor (2012) in Latifah (2012) in his research showed that there was a significant difference between stock returns before holidays and stock returns after holidays.
$H_{3}$ : There is impact of Eid-Al Fitr on stock market return

## 4. Stock market return in Indonesia Stock Exchange and Tadawul Stock

 ExchangeThe great Moslem population in Indonesia Stock Exchange and Tadawul Stock Exchange might affect the market trading activities in both countries. Because Saudi Arabia constitutes higher percentage of Moslem population in its country, there might impact the behavior of investors in
response to investing activities. This research aims to investigate whether there is impact of different capital markets on stock market return.
$H_{4}$ : There is impact of different capital market (Indonesia Stock Exchange and Tadawul Stock Exchange) on stock market return

## 5. Trading volume activity in before and after Eid-Al Fitr holiday

Trading volume activity is one of indicators of stock market performance. If there is increase of trading volume activity after an event (except stock split), there might be an impact of the event on trading volume activity. This research aims to see whether there is impact of Eid-Al Fitr on trading volume activity.
$H_{5}$ : There is impact of Eid-Al Fitr on trading volume activity

## 6. Trading volume activity in Indonesia Stock Exchange and Tadawul Stock Exchange

Trading volume activity in two different countries might show a difference. The change of trading volume activity in impact of an event will also be different. Eid-Al Fitr might impacts on the increase or decrease of trading volume activity. This research aims to investigate whether there is impact of different capital market (Indonesia Stock Exchange and Tadawul Stock Exchange) on trading volume activity.
$H_{6}$ : There is impact of different capital market (Indonesia Stock Exchange and Tadawul Stock Exchange) on trading volume activity.

## III. RESEARCH METHODOLOGY

## A. Research Design

This research is a quantitative research which wants to test the causality relationship between three couples of variables (Eid-A1 Fitr holiday and stock prices, Eid-Al Fitr holiday and stock market returns, Eid-Al Fitr holiday and Trading Volume Activity). The method used in this research is event studies method. Event study research is generally related to how quickly an event entering the market can be reflected in stock prices (Tandelilin, 2001). The event study method used in this study was to find out the capital market reaction to the Eid-Al Fitr holidays to the returns obtained.

This is a descriptive research study. Descriptive research is undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in a situation. The goal of a descriptive study is to offer the researcher a profile or to describe relevant aspects of the phenomenon of interest from an individual, organizational, industry oriented or other perspectives. Descriptive studies that present data in a meaningful form thus help the researcher to: Understand the characteristics of a group in a given situation; think systematically about aspects in a given situation and offer ideas for further probe and research. Thus the study will only look at what the effect of Moslem holidays
are on stock returns but will not consider the how and why of these effects. The event window used in this research is 20 days, which are 10 days before the EidAl Fitr holiday and 10 days after the Eid-Al Fitr holiday. The study covers a period of five years from 2014 to 2018.

## B. Population and Sample

Population refers to the entire group of people, events, or things of interest that the researcher wishes to investigate. Population forms a basis from which the sample or subjects for the study is drawn (Gweyi, 2014). The population in this study is a census of all the companies quoted at the IDX for Indonesia's data and Tadawul All Share Index (TASI) for Saudi Arabia.

The sample chosen therefore needs to be representative of the population. The sample in this research is the population itself. This research will use the Jakarta Composite Index (JCI) for Indonesia's data and Tadawul All Share Index (TASI) for Saudi Arabia's data. The daily closing (10 days before Eid-Al Fitr holiday and 10 days after Eid-Al Fitr holiday) of both indices will be used in this study. The sample will include weekly observations from the sample period of 2014 to 2018.

## C. Data Collection

The study will make use of secondary data. The data to be collected from www.idx.co.id and www.tadawul.com will include closing prices in closing date of the week of both share indices for a period of five years. This form of
data collection is appropriate since the study will compare past stock prices to test for any anomaly. The dates for the Moslem holidays over the years of study will be collected from www.timeanddate.com. Though the Moslem calendar does not coincide with the Gregorian calendar then approximations for the dates will be done where possible and Islamic holidays shall first be converted to Gregorian calendar before being analyzed.

## D. Operational Definition of Variables

According to Husada (2016), operational definitions are aspects of research that provide us with information on how to measure variables. The following are more detailed descriptions of each operational variable.

## 1. Dependent Variable (Y)

The dependent variables of this research are divided into two, which are as follows:
a. Stock Market Index $\left(\mathrm{Y}_{1}\right)$

A stock market index can represent the stock market prices in capital market. Thus, stock price is the price of a single share of a number of saleable stocks of a company, derivative or other financial asset. In layman's terms, the stock price is the highest amount someone is willing to pay for the stock, or the lowest amount that it can be bought for. In this research, stock indices will be used, which are Jakarta Composite Index (JCI) for Indonesia and Tadawul All Share Index (TASI) for Saudi Arabia.
b. Stock Market Returns $\left(\mathrm{Y}_{2}\right)$

Stock market returns are the returns that the investors generate out of the stock market. The most common form of generating stock market return is through stock trading in the capital market, in which investors could earn stock market return by buying a stock at lower price and selling at a higher price.
c. Trading Volume Activity $\left(\mathrm{Y}_{3}\right)$

Trading Volume is the amount or numbers of stocks traded at a certain time against the number of outstanding stock at a given time (Husnan et al., 2005). Stock trading volume is one of indicators used to see the market reaction to events or information relating to a stock. The change in trading volume is measured by Trading Volume Activity (TVA). The magnitude of TVA's average change between before and after Eid-Al Fitr holiday, is a measure of the impact of Eid-Al Fitr holiday.

## 2. Independent Variable (X)

The independent variable of this research is divided into $X_{1}$ and $X_{2}$. Variable $X_{1}$ stands for Indonesia's data, while $X_{2}$ stands for Saudi Arabia's data. In this research, to investigate the difference between the subjects before and after Eid-Al Fitr holiday, dummy variable will be used, which are as follows:
$\mathrm{X}_{1}=1$ if after Eid-Al Fitr holiday
$\mathrm{X}_{1}=0$ if before Eid-Al Fitr holiday
$\mathrm{X}_{2}=1$ for the Tadawul Stock Exchange's data
$X_{2}=0$ for the Indonesia Stock Exchange's data

## E. Analysis Method

## 1. Descriptive Statistics Analysis

Descriptive statistics refers to the collection, presentation, description, analysis and interpretation of data collection (Perez-Vicente and Ruiz, 2009). Its purpose is to summarize these from a set of values. Descriptive statistics is the method of obtaining data set conclusions about themselves. It can be used to summarize or describe any data set, either a population or a sample.

## 2. Classical Assumption Test

## a. Normality Test

Normality test is used to determine whether or not the normal distribution of data (Santoso, 2010). Good research data is data that has a normal distribution. The normal distribution (bell shaped) means the data has spread evenly so that it can represent the population. Data that is not normal can be distinguished from the level of skewed (skewness). If the data tends to be skewed to the left is called positive skewness, if the data tend to be skewed to the right is called negative skewness, and the data is said to be normal if the data is symmetrical.

## 3. Time Series Data Regression Model Analysis

To estimate the impact of Eid-Al Fitr holiday on stock market return, a pooled fixed/random effect regression is used across the inspected stock markets (Indonesia Stock Exchange and Tadawul Stock Exchange). Fixed effect model is acceptable in the case where our basically aim is to link up with the policy-related inference while random effect is preferable before going to final inference if we have significant access to rich data set and selection contrivance is very well understood. In the random effects model, the individual-specific effect is a random variable that is uncorrelated with the explanatory variables.

Hausman test is used to check that whether fixed effect panel regression is suitable or random effect. If the Hausman test does not show a significant difference ( $\mathrm{p}>0.05$ ) it means reflecting that the random estimator is not appropriate to be used in the regression model. But if the results are significant ( $\mathrm{p}<0.05$ ), the right model to use is Fixed Effect Model (FEM).

## F. Hypothesis Test

Hypothesis testing is done to produce a decision whether the hypothesis is accepted or rejected. Hypothesis testing is done to analyze the effect of independent variables on the dependent variable proposed in the research hypothesis. Hypothesis testing in this study uses multiple linear regression analysis.

## 1. Multiple Linear Regression Analysis

Regression analysis is performed so as to determine the correlations between two or more variables having cause-effect relations, and to make predictions for the topic by using the relation. The regression using one single independent variable is called univariate regression analysis, while the analysis using more than one independent variable is called multivariate regression analysis (Tabachnick, 1996). In multivariate regression analysis, an attempt is made to account for the variation of the independent variables in the dependent variable synchronically (Unver and Gamgam, 1999). The following regression is estimated to capture the existence of impact of Eid-Al Fitr holiday in both Indonesia and Saudi Arabia capital market:

$$
\mathbf{Y i}=\mathbf{a}+\mathbf{b}_{1} \mathbf{X}_{1}+\mathbf{b}_{2} \mathbf{X}_{2}+\varepsilon
$$

where:
$\mathrm{Y}_{\mathrm{i}}=$ the dependent variable which is the stock market performance, measured by three elements in capital market:

$$
\begin{aligned}
& \qquad \mathrm{Y}_{1}=\text { stock market indices } \\
& \mathrm{Y}_{2}=\text { stock return } \\
& \mathrm{Y}_{3}=\text { Trading Volume Activity } \\
& \mathrm{a}=\mathrm{b}_{0}=\mathrm{x} \text { when } \mathrm{X}_{1} \text { and } \mathrm{X}_{2}=0 \\
& \mathrm{X}_{1}=\text { dummy variable for Eid-Al Fitr holiday, with explanations as } \\
& \text { follows: }
\end{aligned}
$$

$$
\mathrm{X}_{1}=1 \text { if after Eid-Al Fitr holiday }
$$

$\mathrm{X}_{1}=0$ if before Eid-Al Fitr holiday
$\mathrm{X}_{2}=$ dummy variable for the capital markets, with explanations as follows:

$$
\begin{aligned}
& X_{2}=1 \text { for the Tadawul Stock Exchange's data } \\
& X_{2}=0 \text { for the Indonesia Stock Exchange's data }
\end{aligned}
$$

To figure out more about the analysis for each dependent variable, the models are explained in the following regressions:

1. $Y_{1}=a+b_{1} X_{1}+b_{2} X_{2}+\varepsilon$

With explanations as follows:
$\mathrm{Y}_{1}=$ the stock market indices
$\mathrm{a}=\mathrm{b}_{0}=\mathrm{x}$ of stock prices when $\mathrm{X}_{1}$ and $\mathrm{X}_{2}=0$
$\mathrm{b}_{1}=$ difference in stock prices before and after Eid-Al Fitr holiday
$\mathrm{b}_{2}=$ difference in stock prices in Indonesia and Tadawul StockExchange
$a+b_{1}=$ mean of stock prices between before and after Eid-Al Fitr holiday
$\mathrm{a}+\mathrm{b}_{2}=$ mean of stock prices between Indonesia and Tadawul Stock
Exchange
2. $Y_{2}=a+b_{1} X_{1}+b_{2} X_{2}+\varepsilon$

With explanations as follows:
$Y_{1}=$ the stock return
$\mathrm{a} \quad \mathrm{b}_{0}=\mathrm{x}$ of stock return when $\mathrm{X}_{1}$ and $\mathrm{X}_{2}=0$
$\mathrm{b}_{1}=$ difference in stock return before and after Eid-Al Fitr holiday
$\mathrm{b}_{2}=$ difference in stock return in Indonesia and Tadawul Stock Exchange
$a+b_{1}=$ mean of stock return between before and after Eid-Al Fitr holiday
$a+b_{2}=$ mean of stock return between Indonesia and Tadawul Stock
Exchange
3.
$Y_{3}=\mathbf{a}+b_{1} X_{1}+b_{2} X_{2}+\varepsilon$
With explanations as follows:
$Y_{3}=$ the Trading Volume Activity
$\mathrm{a}=\mathrm{b}_{0}=\mathrm{x}$ of trading volume activity when $\mathrm{X}_{1}$ and $\mathrm{X}_{2}=0$
$\mathrm{b}_{1}=$ difference in trading volume activity before and after Eid-Al Fitr holiday
$\mathrm{b}_{2}=$ difference in trading volume activity in Indonesia and Tadawul Stock Exchange
$a+b_{1}=$ mean of trading volume activity between before and after Eid-Al Fitr holiday
$a+b_{2}=$ mean of trading volume activity between Indonesia and Tadawul Stock Exchange

## 2. Partial Test (t-test)

According to Ghozali (2009) a partial test basically shows to determine the effect of each independent variable on the dependent variable. The significant level used is at 0,05 . Acceptance or rejection criteria for $\mathrm{H}_{0}$ are as follows:
a. If T counts $<\mathrm{T}$ table or -T counts $>-\mathrm{T}$ table, then $\mathrm{H}_{0}$ is accepted.
b. If T counts $>\mathrm{T}$ table or T -count $<-\mathrm{T}$ table, then $\mathrm{H}_{0}$ is rejected.

Criteria for decision making based on p-value at a $95 \%$ confidence level or a significant level of 0.05 are as follows:
a. If the p-value is $>0.05$, then $\mathrm{H}_{0}$ is accepted. That is, it does not have a significant partial effect.
b. If the p -value is $<0.05$, then $\mathrm{H}_{0}$ is rejected. That is, there is a significant partial effect.

## 3. Determination Coefficient Test ( $\mathbf{R}^{\mathbf{2}}$ )

According to Ghozali (2009) the coefficient of determination $\left(\mathrm{R}^{2}\right)$ essentially measures how far the ability of the model in explaining variations in independent variables. The coefficient of determination is between zero and one. If the $R^{2}$ value is small, it means that the ability of the independent variables to explain the variation of the dependent variable is very limited. However, if the $\mathrm{R}^{2}$ value approaches one, it means that the independent variables provide almost all the information needed to predict the variation of the dependent variable.

## V. CONCLUSION AND SUGGESTION

## A. Conclusion

The result of statistical test has constructed these following conclusions:

1. Performance of stock market index

The average value of stock market index changes (increases) after EidAl Fitr, but the statistical test shows that the result is not significant, which means that there is no impact of Eid-Al Fitr on stock market index. Hence, there is difference of stock market index performance between Indonesia Stock Exchange and Tadawul Stock Exchange.
2. Performance of stock market return

The average value of stock return changes (decreases) after Eid-Al Fitr and the result of the statistical test is significant. This means that there is impact of Eid-Al Fitr on stock market return. But, there is no difference of stock market return performance between Indonesia Stock Exchange and Tadawul Stock Exchange.
3. Performance of trading volume activity

The average value of trading volume activity changes (decreases) after Eid-Al Fitr, but the statistical test shows that the result is not significant, which means that there is no impact of Eid-Al Fitr on
trading volume activity. Hence, there is difference of trading volume activity performance between Indonesia Stock Exchange and Tadawul Stock Exchange.

## 4. Impact of Eid-Al Fitr on Stock Market Performance

 The result of statistical test has proven that Eid-Al Fitr only impacts the performance of stock market return, but the different capital market does not give impact of a difference stock market return. This supports the previous research which found that there is impact of EidAl Fitr on stock market return, which is a decrease of stock market return after Eid-Al Fitr.In conclusion, Eid-Al Fitr only impacts the performance of stock market return, while the stock market return and trading volume activity are not affected. On the other side, there is a difference of the performance of stock market return and trading volume activity between Tadawul Stock Exchange and Indonesia Stock Exchange. Eid-Al Fitr is a normal event which happens annually, and people in every country which celebrates Eid-Al Fitr will always have idea about the day of Eid-Al Fitr in every year, especially in Indonesia and Saudi Arabia. It means that there is nobody who does not know about the day, and nobody gets abnormal return.

## B. Suggestion

The period of research using daily data and within ten days may not be enough to be able to assess if there is impact of Eid-Al Fitr on stock market performance. Future researchers are suggested to use weekly data that the stock market performance has changed a lot.

## BIBLIOGRAPHY

Agustin, S. and Hadi Santoso, B. 2017. Comparative Analysis of Trading-Volume Activity and Abnormal Return Before and After Stock Split. International Journal of Scientific and Research Publications. 7:478-489.

Ali, I. and Akhter, W. 2017. Impact of Muslim Holy Days on Asian Stock Markets: An Empirical Evidence. J. of General and Applied Economics. 5:1-10.

Ang, Robert. 1997. Buku Pintar Pasar Modal Indonesia. Media Staff Indonesia, Jakarta.
Atala, Mary. The Effect of Muslim Holidays on Stock Returns of Listed Companies at The Nairobi Securities Exchange. (Master of Finance Thesis). University of Nairobi. 68 pp.

Canepa, A. and Ibnrubbian. A. 2012. Does Faith Move Stock Markets? Evidence from Saudi Arabia. (Paper Proceeding). Universiti Sains Islam Malaysia. Kuala Lumpur. 32 pp.

Chomariah and Ghozali, I. and Darsono, 2004, Pengaruh Hari Libur Nasional Terhadap Return Saham Harian di Bursa Efek Jakarta. Jurnal Maksi, 4:129-145.

Devault, G. Learn What Simple Linear Regression Is and How It Works. The Balance Small Business. Aug 2017. https://www.thebalancesmb.com/what-is-simple-linear-regression-2296697. Accessed on October 18th, 2018.

Elyanti, E. 2016. Pengaruh Idul Fitri Terhadap Abnormal Return Saham di Bursa Efek Indonesia. (Undergraduate Thesis). Universitas Islam Indonesia. 21 pp.

Ghozali, I. 2009. Aplikasi Analisis Multivariate dengan Program SPSS. Third Edition, Badan Penerbit Universitas Diponegoro, Semarang. 312 pp.

Gitman, L. and Zutter, C. 2011. Principles of Managerial Finance. Thirteenth Edition. Prentice Hall, New Jersey. 796 pp.

Goretti and Adelina, I. 2004. Identifikasi Idul Fitri Holiday Effect di Bursa Efek Jakarta Tahun 1999-2003. (Magister Degree Thesis). Program Pasca Sarjana Universitas Gadjah Mada Yogyakarta. 97 pp.

Hinawati, T. 2016. Efek Hari Libur Idul Fitri Terhadap Abnormal Return Saham di Bursa Efek Indonesia. Jurnal Studi Islam. 11:34-50.

Kaya, G. and Guler, N. 2013. A Study on Multiple Linear Regression Analysis. Journal of Social and Behavioral Sciences. 106:234-240.

Kim, C. and Park, J. 1994. Holiday Effect and Stock Returns: Further Evidence. Journal of Financial and Quantitative Analysis. 29:145-157.

Latifah, U. 2012. Analisis Perbedaan Return Saham Sebelum dan Sesudah Hari Libur Keagamaan Serta Hari Libur Nasional. (Bachelor Thesis). University of Diponegoro. Central Java. 69 pp.

Rachmadani, S. and Kertahadi. 2013. Analisis Perbedaan Trading Volume Activiy Sebelum dan Sesudah Stock Split. Jurnal Administrasi Bisnis. 1:38-44.

Sonjaya, A. and Wahyudi, M. 2016. The Ramadan Effect: Illusion or Reality? Arab Economic and Business Journal. 2:55-71.

Sunariyah. 2004. Pengetahuan Pasar Modal. Fourth Edition. UPP AMP YKPN, Yogyakarta. 331 pp .

Tandelilin, E. 2001. Analisis Investasi dan Manajemen Portofolio. First Edition. Badan Penerbitan Fakultas Ekonomi, Yogyakarta. 364 pp.

Titan, A. 2015. The Efficient Market Hypothesis: review of specialized literature and empirical research. Procedia Economics and Finance. 32:442-449..

