

ANALYSIS OF ABNORMAL RETURN, TRADING VOLUME ACTIVITY, AND BID-ASK SPREAD ON SUKUK ISSUANCE EVENT

(Study on Issuer Stock of Sukuk Publisher on Period 2015-2017)

(Undergraduate Thesis)

By

CITRA LARAS MAHARANI



FACULTY OF ECONOMICS AND BUSINESS

UNIVERSITY OF LAMPUNG

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ABSTRACT

ANALYSIS OF ABNORMAL RETURN, TRADING VOLUME ACTIVITY, AND BID-ASK SPREAD ON SUKUK ISSUANCE EVENT (Study on Issuer Stock of Sukuk Publisher on Period 2015-2017)

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CITRA LARAS MAHARANI

Sukuk, is an alternative funding in the company and as Islamic debt market financial instrument. This research analyzes the market reaction of the company's shares when the company issues sukuk as company disclosure and seen from its market reaction. The reaction from market on sukuk issuance as one of the information to investors on their investment decisions. This research aims to find out the different of before and after abnormal return, trading volume activity, bid-ask spread on sukuk issuance event of companies issuing sukuk in 2015-2017. This research used event study analysis. The data of this research is secondary data. The sample of this research is 13 from 6 companies.

This research used Kolmogorov-Smirnov for normality test, One Sample T-test, and Paired Sample T-test. This research is based on a statistical test with a significance level (α) = 5 % using SPSS 21 Statistical tools. The results of this research are all variable has no significant different of abnormal return, trading volume activity, and bid-ask spread in the period surrounding the announcement of sukuk issuance in 2015-2017. It can be concluded that investors do not react to the publication of sukuk issuance events, which are seen on the result that there is no differences from abnormal returns, trading volume activity, and bid-ask spreads before and after sukuk issuance event in 2015-2017.

Keywords: Sukuk, Abnormal Return, Trading Volume Activity, Bid-Ask Spread

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By
CITRA LARAS MAHARANI

Undergraduate Thesis

As one of the Requirement 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
2019**

Research Title : **ANALYSIS OF ABNORMAL RETURN, TRADING VOLUME ACTIVITY, AND BID-ASK SPREAD ON SUKUK ISSUANCE EVENT (Study on Issuer Stock of Sukuk Publisher on Period 2015-2017)**

Student's Name : **Citra Laras Maharani**

Student's ID Number : 1211011036

Department : Management

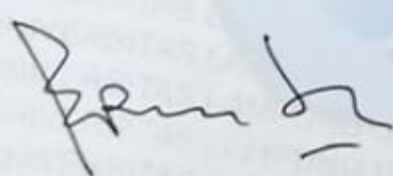
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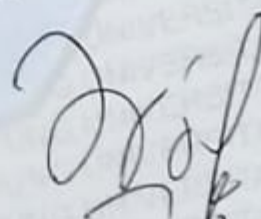
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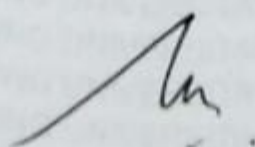


Dr. Ernie Hendrawaty, S.E., M.Si.
NIP 19691128 200012 2 001



Igo Febrianto, S.E., M.Sc.
NIP 19790210 201404 1 001

2. The Chairperson of
The Management Department

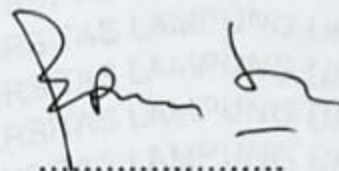


Dr. R.R. Erlina, S.E., M.Si.
NIP 19620822 198703 2 002

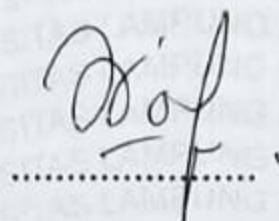
VALIDATING

1. Examination Commitee

Chairperson : **Dr. Ernie Hendrawaty, S.E., M.Si.**



Secretary : **Igo Febrianto, S.E., M.Sc.**



Examiner : **Prof. Dr. Mahatma Kufepaksi, M.Sc.**



2. The Dean of Economics and Business Faculty



Prof. Dr. Satria Bangsawan, S.E., M.Si.
NIP 19610904 198703 1 001

Thesis Examination Passing Date : **February 22nd, 2019**

SURAT PERNYATAAN

Saya yang bertanda tangan di bawah ini :

Nama : Citra Laras Maharani

NPM : 1211011036

Judul Skripsi : **ANALYSIS OF ABNORMAL RETURN, TRADING VOLUME
ACTIVITY, AND BID-ASK SPREAD ON SUKUK ISSUANCE
EVENT (Study on Issuer Stock of Sukuk Publisher on Period
(2015-2017)**

Jurusan : Manajemen

Fakultas : Ekonomi dan Bisnis

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Citra Laras Maharani

Biography

The writer was born on October 14th 1994 in Bandar Lampung, Lampung. She is the youngest children of Ir. H. Suarno Sadar, M.Si., and Dra. Hj. Hermawaty. She also has two older sisters and one older brother; Ratih Larasanty, A.Md., Akhmad Alfalah, S.E., Shinta Tantri Adisti, S.P., M.Si.

In 2000, the writer graduated from TK Kartika II-6 Bandar Lampung. Then, she studied in SD Kartika II-5 Bandar Lampung and finished in 2006. Then, She entered SMP Al-Kautsar Bandar Lampung and finished in 2009. She continued her study at SMA Al-Kautsar Bandar Lampung and graduated in 2012.

She continue her study at Management Department on Economic and Business Faculty of Lampung University in 2012. Also she join Bilingual Class Batch 2012 and member of Economic English Club.

DEDICATIONS

This Undergraduate Thesis is proudly dedicated to:

My beloved parents:

Ir. H. Suarno Sadar, M.Si., and Dra. Hj. Hermawaty

My beloved older sisters and brother:

Ratih Larasanty, A.Md.

Akhmad Alfalah, S.E.

Shinta Tantriadisti, S.P., M.Si.

My Almamater:

Faculty of Economics and Business, University of Lampung

MOTTO

“It does not matter how slowly you go as long as you do not stop.”

– Confucius

“Indeed, with hardship (will be) ease.”

– (Qs: Al-insyirah [94]:5-6)

“But Allah is your protector, and He is the best of helper.”

– (Qs: Ali Imron [3]:150)

“The more that you read, the more things you will know. The more that you learn, the more places you’ll go.”

– Dr. Seuss

“I am not in competition with anyone but myself, my goal is to improve myself continuously.”

– Bill Gate

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I. INTRODUCTION

A. Background

Indonesia's economic growth in 2017 was quite stable and continues to increase. Although it is still in the category of slow growth and still had to be wary of current global conditions, but Indonesia's economic growth is quite satisfying and in a good condition.

Based on World Bank Quarterly, in March 2017, economic growth in Indonesia increased for the first time in five years, risen up to 5.0 percent in 2016 from a revised 4.9 percent in 2015, despite heightened global policy uncertainty. A stable Rupiah, record low inflation, declining unemployment and soaring real wages lifted consumer confidence and private consumption. In contrast, falling government expenditure and weaker investment growth weighed on overall economic growth for the year.

On the other side, the global financial crisis has alerted investors on the significance of another investment alternative as a means to diversify and minimize the risk of their investment portfolios. To be totally dependent on the equity market might limit the investors' chance to optimize their portfolio returns particularly during the economic downturn, (Mohamed *et al.* 2017).

The global financial crisis on 2008 increased the need for risk diversification within the financial system. Sukuk, or Islamic bond, it was an alternative for risk diversification and were the most active Islamic debt market financial instrument to date. They are investment certificates with both bond and stock-like features issued to financial trade or the production of tangible assets. Due to the rapid expansion of Islamic financial instruments, the sukuk market has become an important avenue for fundraising and investment activities, (Rahim and Ahmad, 2015).

Sukuk was viewed as one of the best alternatives for the risk of the diversification strategy. Also, the market reaction on the new issuance of Sukuk was expected to assist the investor in executing a better investment strategy, thus, reduce the probability of losing their investment, (Mohamed *et al.* 2017).

Based on Afshar (2013), these sukuk represent the proportional ownership of an existing asset or a pool of diversified asset, and a pledge against existing or future cash flows generated from these assets for a specified period of time. The risk and return associated with underlying asset and these cash flows are passed to sukuk holders. These assets may be tangible or intangible, existing or described with deferred delivery, usufruct or services. Under sukuk structure the investors, sukuk holders each hold an undivided beneficial ownership in the underlying assets.

Also, the global outstanding volume of sukuk exceeded USD\$90 billion in 2007 and expected to reach USD\$200 billion in 2010. Issuance quadrupled from USD\$7, 2 billion in 2004 to nearly USD\$39 billion by the end of 2007 and was up from USD\$336 million in 2000 (Moody's, 2007, 2008). More than 50 percent of the

USD\$26, 1 billion of sukuk issued in 2009 originated in Malaysia. Malaysian sukuk represents about half of the total stock of Malaysian corporate bond, (Rahim and Ahmad, 2015).

The UK so far, the most advanced in this and has made change's to the finance act and other regulatory framework in order to ensure a level playing field that is created for Islamic financial institutions. The reason for sukuk issuance outside the Middle East and Asia varies. This is due to demand for sukuk globally. Demand for sukuk specifically arises from GCC, UAE, and Malaysia, (Lebbe and Rauf, 2016),.

The recent announcement on October 29, 2013 by British Prime Minister that the United Kingdom was the first country outside the Islamic world to issued sukuk, had reaffirmed the increasing interest in this Islamic financing model. Over the past decade, Islamic finance had registered an impressive growth, with worldwide Islamic financial assets rising from USD 150 billion in the mid-1990s to USD 1.6 trillion by the end of 2012, (Godlewski *et al.*2014).

Based on Lebbe and Rauf (2016), despite the downturn in the capital markets, there had been a successful issue of the London listed \$750 government of Bahrain's sukuk, due to European capital markets collapse due to World financial crises. Now, attention has been diverted from the capital market to sukuk market, which is attractive for infrastructure, building construction, and many more purposes.

As well as the other country all over the world, the increased of the Indonesian capital market over the last years is outstanding. Based on Arieza (2017), IDX even

prove through the acceptance of the award of the Global Islamic Finance Award for two consecutive years after 2016 for the category of The Best Supporting Institution for Islamic Finance of the Year. IDX is the only institution from Indonesia to receive awards from GIFA for two consecutive years. This award is also a time gauge for Indonesia to show that the Indonesian Syariah Capital Market has been able to compete at the International level.

That is why, investment could be done in various ways and forms such as by buying gold, land, saving, deposits, and there is also investing through the capital market. A good investment is a long-term sustainable investment which has time range that could last at least 5 years. Usually long-term investment is an investment through capital market instruments, such as securities and bond, reksadana and so on.

Sukuk Issuance is one form of a company's investment policy. From a few years earlier syariah investments has been running in the International. Syariah investment enthusiasts are not only Muslim countries, but also countries in Europe, the United States, even in Asia and worldwide have started to study and try to invest in the scope of syariah.

Also, information relevant to the capital market, wa something that is sought by investors, in an effort to make investment decisions. Sukuk issuance is a form of company policy that will have an impact on changes in the company's capital structure, (Mujahid and Fitrijanti, 2016). Also based on Fatimatuzzahra and Herlambang (2014), Sukuk publication announcement is an information for investor and others in order to asses it based on their investment decisions. Based

on those information, investors and other could change the decisions also change the demand and supply of the shares.

Despite the debate on various aspects of syariah bond or sukuk such as their originality, their compliance and their performance, sukuk have become promising alternative instruments of financing consistent with portfolio theory and financial planning. Financial engineering has implemented several sukuk structures to enable public and private organizations to fund. Furthermore, investors could include sukuk in their portfolios as part of their portfolio diversification strategy, (Mosaid *et al.* 2014).

Besides those already mentioned, based on Lebbe and Rauf (2016), many of the infrastructure projects require a large amount of investment on a long term basis. It is expected that the major part of this capital would be raised through the Islamic capital market and sukuk instruments. The development of sukuk market, as an alternative to be the conventional debt market, it's expressed to be the main force for securing funds to finance infrastructure in the Muslim world and outside.

Then based on Mosaid *et al.* (2014), the sukuk market was fastest growing and promising segment of Islamic Finance. Indeed, the issuance of sukuk was increasing considerably worldwide, especially in Malaysia, United Arab Emirates (UAE) and Saudi Arabia.

Investing through Sukuk based on Godlewski *et al.* (2014), are investment certificates that could be issued by sovereign and corporations and which exhibit

similarities and differences with the conventional bonds. Similar to bonds, sukuk have a maturity date and sukuk holders receive a regular stream of income (fixed or variable) over the life of the certificate along with a balloon payment at maturity. However, in contrast to bonds, the value of sukuk does not rest on the creditworthiness of the issuer.

Based on Saad and Haniff (2013), syariah bond (sukuk) is identical to conventional bonds in Malaysia. It always has time to maturity, a coupon rate, and trade on the normal yield price relationship. The difference lies only in the way the issuer structure of the bonds. Syariah bond (sukuk) is structured such that the issuance is not an exchange of paper for money consideration with the imposition of an interest as per conventional. Approval of the asset and the contract of the exchange would be based on syariah (Islamic law) principle, which is necessary to meet the Islamic requirement.

Based on Jallad (2015), saw sukuk as equivalent to conventional bonds when it came to aspects of rating, issuance and redemption procedures, return payments, and default clauses. The main differences between sukuk and conventional bonds were illustrated in the following exhibit :

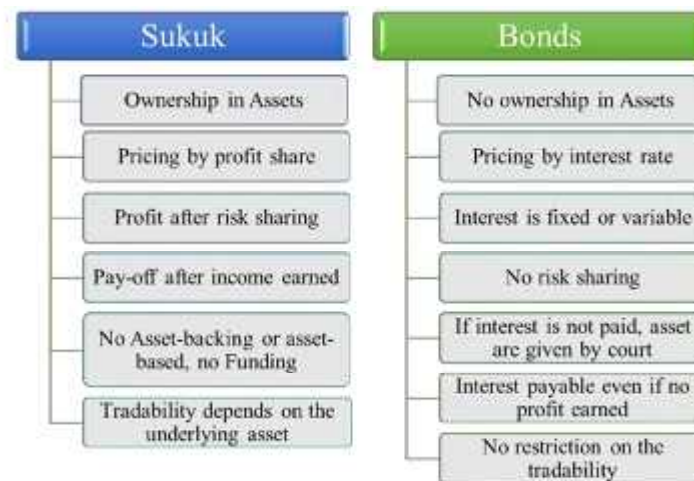


Figure 1.1 Differences Between Sukuk and Conventional Bonds.
Source: Jallad (2015).

This study analyzes the effect of the company's shares when the company issues sukuk as company disclosure or corporate action and seen from its market reaction. Based on Pratama (2013), fluctuations in stock prices that occur around the day of the announcement of bond issuance could provide an opportunity for the investor to be able to get a good return below or above the normal return called abnormal return.

Based on Hartono (2005), explained how a market reacts to information to achieve a new equilibrium price is important. If the market reacts quickly and accurately to achieve a new equilibrium price that fully reflects the available information, then such market conditions were called efficiency markets. Also, based on Damodaran (2002), the evidence from studies of market efficiency without claiming to be comprehensive, the evidence is classified into four sections, the study of price changes and their time series properties, the research on the efficiency of market reaction to information announcements, the existence of return anomalies across

firms and over time, and the analysis of the performance of insiders, analysts, and money managers.

Based on Fatimatuzzahra and Herlambang (2014), the announcement of sukuk issuance could affect investors' investment activity, because this could be a signal for investors to know the current condition of the company and the future estimates, the information will be analyzed by investors, whether it will have a positive or negative impact on the company. This related to the risk level of the company resulting from the sukuk issuance and the prospects of investment activities managed by the issuing company. Based on these two aspects, the sukuk issuance that responded well in the capital market will bring benefits to the company and to shareholders that would be reflected in changes in stock prices and stock returns. So that possible abnormal return that will impact on stock price changes and stock trading volume activity.

This research is also supported by previous research based on Ghoniyah *et al.* (2008), that the sukuk issuance would become attractive information to investors because it was perceived that the prospect of the company in the future would be good. The existence of sukuk issuance indicates that the company would conduct an expansion that would improve the performance of the company. Information on sukuk issuance would be responded by investors. If investors really use the information in their investment decisions, then the announcement information would have an impact on market efficiency through stock price changes and stock trading volume activity.

Also based on Hayati (2012), in addition to using abnormal return, market reaction could also be shown by the change in trading volume of stocks measured by trading volume activity (TVA). By using the stock trading volume, it could be said that an announcement containing the information resulted in the level of stock demand would be higher than the level of stock offerings so that the trading volume of shares increased. Conversely, if the announcement does not contain information then the level of stock demand will be lower than the level of stock offerings so that trading volume of shares decreased.

Based on Amalia (2016), which states that increased transaction cost would decreased transaction volume. Investors who predicted that the shares of the companies they bought may be profitable, so investors would likely hold their stocks for longer periods, certainly with the expectation that the selling price of those shares would be higher in the future. Instead, investors would soon release shares that have been purchased, if it was predicted that the price of shares would decline. This was done by investors to minimize the risks that would be faced.

Market reaction, based on Sari (2016), could be measured using abnormal return, information reaction could also be seen through the parameter of trading volume activity. Market reaction could also be indicated by transaction costs or bid-ask spreads. Based on Ittonen (2012), suggested to other researchers include other stock market measured besides abnormal return in their analysis, because measured like change in volatility volume, bid-ask spread, and systematic risk could provide information that abnormal returns do not offer.

Based on Dowd (2002), liquidity issues affect market risk measurement not just through their impact on our standard measures of market risk, VAR, and ETL but also because effective market risk management involves an ability to measure and manage liquidity risk itself. But the main source of liquidity cost is bid-ask spread.

This information would be enumerated by an investor who was methodologically referred to as an event study. Based on Hayati (2012), event study was also called residual analysis or abnormal performance index test or market reaction test. Also defines an event study as a study involving the analysis of the price behavior of securities around the time of an event or an announcement of information .

Based on Ayuni (2017), the event study could be used to test the information content of an announcement and could also be used to test the market efficiency of the half-strong form. Based on Pratiwi (2015), if the bond issuance contains informative content, then the investor reaction would be seen in the days around the day of announcement of bond issuance.

Based on previous research from Godlewski *et al.* (2014), the investigated on how the feature of sukuk influence the stock market reaction to their issuance using event study methods between 2006-2013 across eight countries. They found the results were the Ijrah sukuk structures exert a positive influence on the stock price of the issuing firm. Based on Rahim and Ahmad (2015), the announcement of Sukuk after the 2008 financial crisis carries surprise to the market.

Thus, the results accepted the hypothesis of positive market reactions to the Sukuk announcement after the 2008 of global financial crisis in Malaysia. Based on

Mohamed *et al.* (2017), the existence of a significantly positive reaction of stock market during financial crisis periods could be attributed to conditions where the islamic issuance might have sent an incredible signal about the financial position of the company.

Meanwhile, Based on Ghoniyah *et al.* (2008), the result of their research showed positive but statistically not significant in abnormal return for date syariah bonds (sukuk) issuance. Further, this studied found some statistically not significant differences in abnormal return and trading volume activities between before and after the issuance of sukuk.

Based on Fatimatuazzahra and Herlambang (2014), the result of this study was based on statistical test with a significance level $\alpha = 5\%$ resulted, the resulted AAR which was in a significantly positive on $t - 2$ at 0.03711 and significantly negative at $t + 9$ of 0.03. In contrast with TVA, the statistic result showed probability value of 0.026, which means there was a significant different of trading volume activity before and after of Sukuk publication.

So, based on the explanation above about Islamic finance on syariah capital market, sukuk as an alternative funding, the impact of stock price changes and about previous research on sukuk against market reaction makes the writer interested to do research to find out the different of before and after market reaction on sukuk event measured through abnormal return, trading volume activity and bid-ask spread in companies issuing syariah bond (sukuk) in 2015-2017.

B. Formulation of the Problem

Based on the existing background, then the formulation of the problems in this study are:

1. Is there any Abnormal Return differences between before and after sukuk issuance event in period 2015-2017?
2. Isthere any Trading Volume Activity differences between before and after on sukuk issuance event inperiod 2015-2017?
3. Is there any Bid-Ask Spread differences between before and after sukuk issuance event in period 2015-2017?

C. The Objectives of the Research

The objectives of this research are:

1. To find out the differences between before and after abnormal return on sukuk issuance event in period 2015-2017.
2. To find out the differences between before and after trading volume activity on sukuk event in period 2015-2017.
3. To find out the differences between before and after bid-ask spread on sukuk event in period 2015-2017.

D. The Uses of the Research

Benefits that can be obtained from this research are:

1. For Practitioners,
 - a. For the Company, this research is expected to provide the information about the reaction of sukuk issuance event in order to taking decision on the company policy in solving financial problem.
 - b. For Investors, this research is expected to provide the information about the reaction of sukuk issuance event in order to taking an investment decision in the capital market.
2. For other Researchers, this research as reference material and additional knowledge to further research.

II. LITERATURE REVIEW

A. Basic Theory

1. Theory of Market Efficiency

Hartono (2005), explained how a market reacts to information to achieve a new equilibrium price was important. If the market reacts quickly and accurately to achieve a new equilibrium price that fully reflects the available information, then such market conditions are called efficiency markets. The one of concept of efficient markets is a fair game. Fairly means that there is no party is harmed abnormally.

The market reaction occurred in the form of positive and negative reactions. The information is used by investors for reference in making their investment decisions. The speed of market reaction was related to information efficiency, whereas the precision of related market reaction to the efficiency of investment decisions (Fatimatuzzahra and Herlambang, 2014).

Based on Damodaran (2002), Definition of market efficiency are also linked up with assumptions about what information is available to investors and reflected in the price. For instance, a strict definition of market efficiency that assumes that all information, public as well as private, is reflected in market prices

would imply that even investors with precise inside information would be unable to beat the market. One of the earliest classifications of levels of market efficiency was under weak form efficiency, the current price reflected the information contained in all past prices, suggested that charts and technical analyses which use past prices alone would not be useful in finding undervalued stocks. Under semi-strong form efficiency, the current price reflected the information contained not only in past prices, but all public information (including financial statements and news reports) and no approach that is predicated on using and massaging this information would be useful in finding undervalued stocks. Under strong form efficiency, the current price reflected all information, public as well as private, and no investors would be able to find undervalued stocks consistently.

Based on Irawan (2015), the concept of market efficiency stated that investors always have the factors available in their decisions so that they reflected on the price they are trading. So the price prevailing in the market already contains such information Hayati (2012), McWilliams and Siegel argue the stock price of the company, as it reflects the flow of future cash flows and has included all relevant information.

Based on Ross *et al.* (2005), the efficiency market could be differentiated in some type, the different type of efficiency: The market responds immediately to all available information. In actuality, certain information may affect stock price more quickly than other information. To handle differential response

rates, researchers separate information into different types. The most common classification system identifies three types: information on past price, publicly available information, and all information.

Over the year this type has been applied to a large number of events. Announcement of dividend, earnings, merger, capital expenditures, and new issues of stock are a few examples of the vast literature in the area. The early event-study tests generally supported the view that the market is semistrong-form (and therefore also weak-form) efficient. However, a number of more recent studies present evidence that the market does not impound all relevant information. Some conclude from this that the market is not efficient. Others argue that this conclusion is unwarranted, given statistical and methodological problems in the studies.

An efficient financial market, processes the information available to investors and incorporates it into the prices of securities. Market efficiency has two general implications. First, in any given time period, a stock's abnormal return depends on information or news received by the market during that period. Second, an investor who uses the same information as the market could not expect to earn abnormal returns. In other words, systems for playing the market are doomed to fail.

The information does the market use to determine price. The weak form of the efficient market hypothesis says that the market uses the past history of prices and is therefore efficient with respect to these past prices. This implies that

stock selection based on pattern of past stock price movements is not better than the random selection. The semistrong form states that the market uses all publicly available information in setting prices. Strong-form efficiency states that the market uses all of the information that anybody knows about stocks, even inside information. Much evidence from different financial markets supports weak-form and semistrong-form efficiency, but not strong-form efficiency.

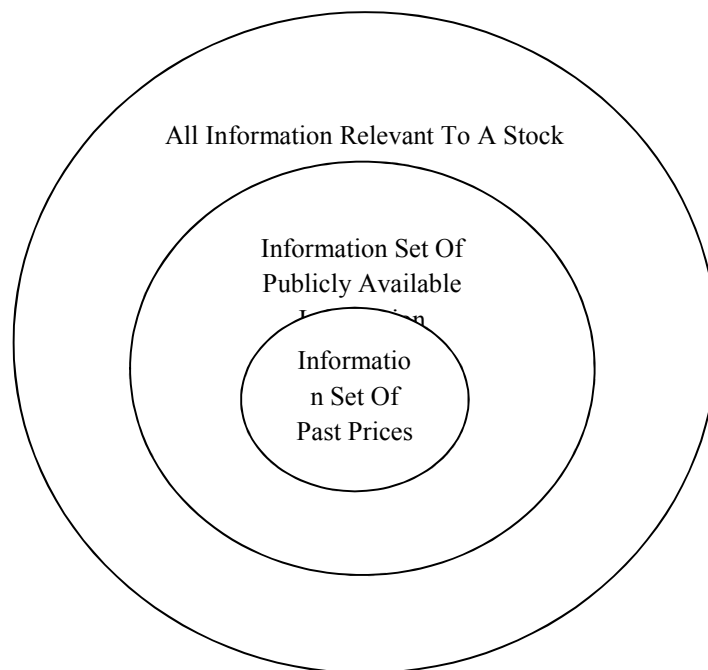


Figure 2.1 Relation Among Three Different Information Set.
Source: Ross *et al.* (2005)

The information set of past prices is a subset of the set of all publicly available information, which in turn is a subset of all information. If today's price reflects only information on past prices, the market is weak-form efficient. If today's price reflects all publicly available information, the market is semistrong-form efficient. If today's prices reflect all information, both public

and private, the market is strong-form efficient. Then semistrong-form efficiency implies weak-form efficiency and strong form efficiency imply semistrong-form efficiency.

Based on Damodaran (2002), In an efficient market, the expected returns from any investment would be consistent with the risk of that investment over the long term, though there may be deviations from these expected returns in the short term. Markets do not become efficient automatically. It is the actions of investors, sensing bargains and putting into effect schemes to beat the market, that make markets efficient. If markets were in fact efficient, investors would stop looking for inefficiencies, which would lead to markets becoming inefficient again. It makes sense to think about an efficient market as a self correcting mechanism, where inefficiencies appear at regular intervals, but disappear almost instantaneously as investors find them and trade with them.

There are a number of different ways of testing for market efficiency, and the approach used would depend in great part on the investment scheme being tested. A scheme based on trading on information events (stock splits, earnings announcements, or acquisition announcements) is likely to be tested using an “event study” where returns around the event are scrutinized for evidence of excess returns. A scheme based on trading on an observable characteristic of a firm (price-earnings ratios, price–book value ratios, or dividend yields) is likely to be tested using a portfolio approach, where portfolios of stocks with these characteristics are created and tracked over time to see whether in fact they

make excess returns. The following pages summarize the key steps involved in each of these approaches, and some potential pitfalls to watch out for when conducting or using these tests.

The evidence from studies of market efficiency without claiming to be comprehensive, the evidence is classified into four sections—the study of price changes over their time series properties, the research on the efficiency of market reaction to information announcements, the existence of return anomalies across firms and over time, and the analysis of the performance of insiders, analysts, and money managers.

a. Market Reaction To Information Events

Some of the most powerful tests of market efficiency are event studies where market reaction to informational events (such as earnings and takeover announcements) has been scrutinized for evidence of inefficiency. While it is consistent with market efficiency for markets to react to new information, the reaction has to be instantaneous and unbiased. This point is made in figure by contrasting three different .

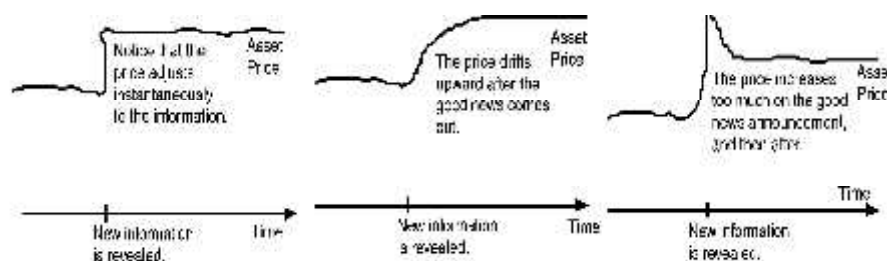


Figure 2.2 Information and Price adjustment.
 Source : Damodaran (2002).

Of the three market reactions pictured here, only the first one is consistent with an efficient market. In the second market, the information announcement is followed by a gradual increase in prices, allowing investors to make excess returns after the announcement. This is a slow learning market where some investors would make excess returns on the price drift. In the third market, the price reacts instantaneously to the announcement, but corrects itself in the days that follow, suggesting that the initial price change was an overreaction to the information. Here again, an enterprising investor could have sold short after the announcement and expected to make excess returns as a consequence of the price correction.

While market efficiency could be tested in a number of different ways, the two most widely used tests to test efficiency are event studies, which examine market reactions to information events, and portfolio studies, which evaluate the returns of portfolios created on the basis of observable characteristics. It does make sense to be vigilant, because bias could enter these studies, intentionally or otherwise, in a number of different ways and could lead to unwarranted conclusions and, worse still, wasteful investment strategies.

Based on Ross *et al.* (2010), as an advocate of the efficient markets hypothesis (EMH) might argue that although inefficiencies may exist, they are relatively

small and not common. The efficient markets hypothesis (EMH) asserts that well-organized capital markets, such as the NYSE, are efficient markets, at least as a practical matter.

If a market is efficient, then there is a very important implication for market participants: All investments in that market are zero NPV investments. The reason is not complicated. If prices are neither too low nor too high, then the difference between the market value of an investment and its cost is zero; hence, the NPV is zero. As a result, in an efficient market, investors get exactly what they pay for when they buy securities, and firms receive exactly what their stocks and bonds are worth when they sell them.

What makes a market efficient is competition among investors. Many individuals spend their entire lives trying to find mispriced stocks. For any given stock, they study what has happened in the past to the stock price and the stock's dividends. They learn, to the extent possible, what a company's earnings have been, how much the company owes to creditors, what taxes it pays, what businesses it is in, what new investments are planned, how sensitive it is to changes in the economy, and so on.

Not only is there a great deal to know about any particular company, but there is also a powerful incentive for knowing it—namely, the profit motive. If you know more about some company than other investors in the marketplace, you can profit from that knowledge by investing in the company's stock if you have good news and by selling it if you have bad news.

The logical consequence of all this information gathering and analysis is that mispriced stocks would become decreased. In other words, because of competition among investors, the market would become increasingly efficient. A kind of equilibrium comes into being with which there is just enough mispricing around for those who are best at identifying it to make a living at it. The illustrations would be illustrated through figure 2.3.

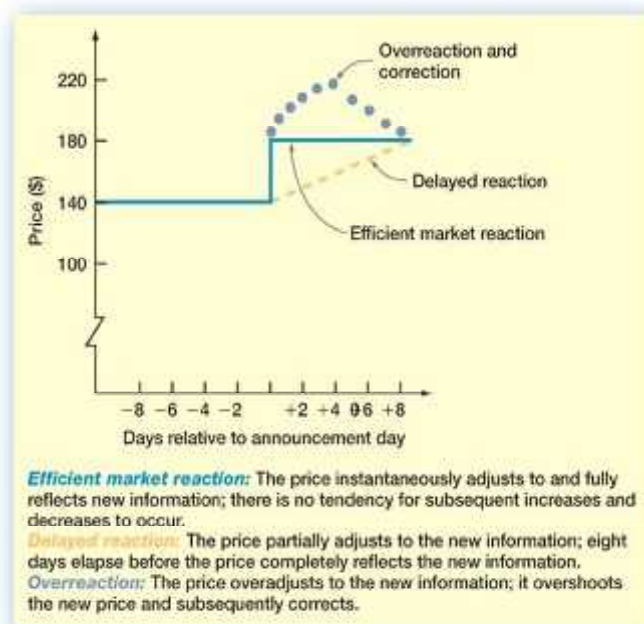


Figure 2.3 Reaction of Stock Price to New Information in Efficient and Inefficient Markets.

Source: Ross *et al.* (2010)

Figure 2.3, presents three possible stock price adjustments. In Figure 2.3, day 0 represents the announcement day. As illustrated, before the announcement, stock sells for \$140 per share. The NPV per share of the new system is, say, \$40, so the new price would be \$180 once the value of the new project is fully reflected.

The solid line in Figure 2.3, represents the path taken by the stock price in an efficient market. In this case, the price adjusts immediately to the new information and no further changes in the price of the stock take place. The broken line in Figure 2.3, depicts a delayed reaction. Here it takes the market eight days or so to fully absorb the information. Finally, the dotted line illustrates an overreaction and subsequent adjustment to the correct price.

The broken line and the dotted line in Figure 2.3, illustrate paths that the stock price might take in an inefficient market. If, for example, stock prices don't adjust immediately to new information (the broken line), then buying stock immediately following the release of new information and then selling it several days later would be a positive NPV activity because the price is too low for several days after the announcement.

B. Empirical Review of Previous Research

Table 2.1 Empirical Review Of Previous Research

| No | Researchers | Research Variable | Research Method | Research Result |
|----|----------------------------|---|--|--|
| 1. | Ghoniya <i>et al.</i> 2008 | <ul style="list-style-type: none"> Abnormal Return and cumulative abnormal return Trading volume activity Sukuk issuance | <ul style="list-style-type: none"> Event Study One Sample T-Test Paired Sample T-test | The results of this study on the abnormal return on syariah bonds (sukuk) announcement are positive in a certain period only and on trading volume activity is positive and significant in the period 2000-2006. |

| No | Researchers | Research Variable | Research Method | Research Result |
|----|-------------------------------------|---|---|--|
| 2. | Fatimatuzzahra and Herlambang, 2014 | <ul style="list-style-type: none"> • Sukuk issuance • Abnormal return • Trading volume activity | <ul style="list-style-type: none"> • Event Study • One Sample T-Test • Paired Sample T-test | The results of this study were positive and significant in some periods when using Average Abnormal Return, while using the Trading Volume Activity that negatively affected the period 2008-2012. |
| 3. | Anwar and Asandimitra, 2014 | <ul style="list-style-type: none"> • Abnormal return • Trading volume Activity • Bid-Ask Spread | <ul style="list-style-type: none"> • Event Study • Paired Sample T-test • Wilcoxon Rank Test | The results of this study on the abnormal return are positive in a certain period only, there is no difference on trading volume activity, for bid-ask spread are also positive in a certain period only. |
| 4. | Hermawan and Wijayanto, 2015 | <ul style="list-style-type: none"> • Abnormal Return • Trading Volume Activity • Bid Ask Spread • Right Issue | <ul style="list-style-type: none"> • Event Study • One Sample T-Test • Paired Sample T-test | The result from 38 companies with 39 event right issue is there is no significant difference in abnormal return, trading volume activity, and bid-ask spread, between before and after the announcement of the right issue. It means that the right issue announcement does not contain enough information to affect the interest of investors |

| No | Researchers | Research Variable | Research Method | Research Result |
|----|------------------------------|---|--|--|
| 5 | Rahim and Ahmad, 2015 | <ul style="list-style-type: none"> • Cumulative abnormal return • Announcement of sukuk issuance | <ul style="list-style-type: none"> • Event Study | The result finding indicates the positive and significant market reaction toward syariah (sukuk) Announcement of a few events, for both index (The FTSE Hijrah Syariah Index and Dow Jones Islamic Market Index) on period 2009-2011. |
| 6. | Mujahid and Fitrijanti, 2016 | <ul style="list-style-type: none"> • The value of Sukuk • Rating of Sukuk • Cumulative abnormal return | <ul style="list-style-type: none"> • Event Study • Multiple Linier Regression Analysis | The results of this study indicate that the rating and the rating of syariah bond (sukuk) issuance, either simultaneously or partially has no significant effect on cumulative abnormal return in the period of 2002-2009. |
| 7. | Safira and Simon, 2016 | <ul style="list-style-type: none"> • Abnormal Return • Trading Volume • Trading Frequency • Bid-Ask Spread • Share Split | <ul style="list-style-type: none"> • Event Study • Paired Sample T-test | The result of this study showed that volume trading activity and trading frequency had significant differences before and after the share split. While, variable abnormal return and bid-ask spread had not significant differences on before and after the share split. |

| No | Researchers | Research Variable | Research Method | Research Result |
|-----|------------------------------|--|---|--|
| 8. | Mohamed <i>et al.</i> 2017 | <ul style="list-style-type: none"> • Sukuk • Market reaction | <ul style="list-style-type: none"> • Event Study | However, the EMAS Index shows none of these significant result. The significant findings in this study when using KLCI are expecting to contribute clearer evidence and strategies, whether the information regarding syariah bond (sukuk) can help investor to form a better investment strategy on period 2007-2008. |
| 9. | Sari et al. 2017 | <ul style="list-style-type: none"> • Cumulative abnormal return • The value of Sukuk • Rating of Sukuk | <ul style="list-style-type: none"> • Event Study • Multiple Linier Regression Analysis | Based on the above research, it can be concluded that the value and the rating of syariah bond (sukuk) issuance has no effect in market reaction (cumulative abnormal return) in BEI in the period 2012-2016. |
| 10. | Utami and Asandimitra, 2017 | <ul style="list-style-type: none"> • Abnormal Return • Trading Volume • Bid-Ask Spread • Stock Split | <ul style="list-style-type: none"> • Event Study • Paired Sample T-test • Wilcoxon Rank Test | There is no difference of abnormal return, trading volume, bid-ask spread in the period before-at the moment-and after stock split. |
| 11 | Dwipayana And Wiksuana, 2017 | <ul style="list-style-type: none"> • Abnormal Return • Deviden | <ul style="list-style-type: none"> • Event Study • One Sample T-test | Deviden Announcement affect prices with the presence of Abnormal Return but not significant and no prolonged that the market price rich a new equilibrium price point. |

C. The Conceptual Framework

Based on the existing research descriptions, the framework can illustrate by this:

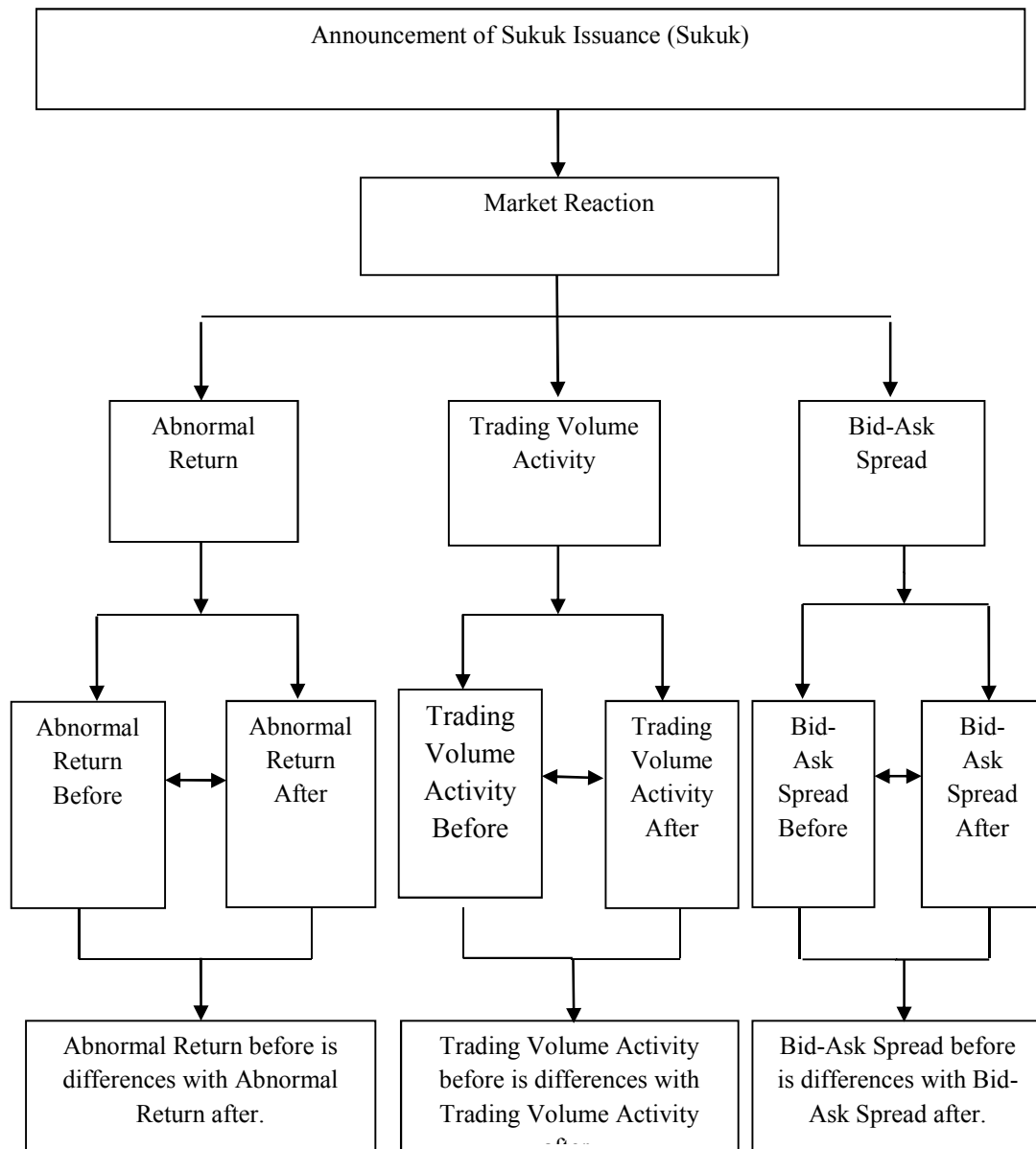


Figure 2.4 The Conceptual Framework of The Analysis of Abnormal Return, Trading Volume Activity, and Bid-Ask Spread on Sukuk Issuance Event.

This framework aims to determine the relationship between dependent and independent variables. Based on Yuniati (2017), an event may affect the price of securities traded in the capital market if the event is considered to have information content for investors. Testing by a particular event is called the test based on event study. This research aims to determine the market reaction to the issuance of syariah bond (sukuk) in 2015-2017 measured from abnormal return, and trading volume activity, bid-ask spread of the securities concerned.

D. Hypothesis Development

The market reaction occurs in the form of positive and negative reactions. The information is used by investors for reference in making their investment decisions. The speed of market reaction is related to information efficiency, whereas the precision of related market reaction to the efficiency of investment decisions (Fatimatuazzahra and Herlambang, 2014). Based on the description, conceptual framework and so on, then there are 3 hypotheses proposed in this study.

1. Analysis of abnormal return on sukuk issuance.

The market reaction is indicated by the price change of the relevant securities which can be measured by abnormal return, (Savitri, 2015). Based on Savitri (2015) research using abnormal return of shares because the issuance of syariah bond (sukuk) has informative content that affect market behavior and price of securities in order to see the efficiency market. Due to the issuance of syariah

bond (sukuk) the company conducts investment and operating activities and would increase the production, distribution and services of the company.

Based on Fatimatuzzahara and Herlambang (2014), indicated by the price change of abnormal return with average abnormal return, and the result of their study were based on a statistical test with a significance level (α) = 5 % resulted AAR which was in a significantly positive on $t - 2$ at 0.03711 and significantly negative at $t + 9$ of 0.03.

Also similar to based on Mohamed (2017), the 115 sukuk issuances between 2002 and 2013 his study reveals that the effect of the announcement was significantly negative a day before and on the announcement date. On top of that, the result finds that there is a significantly positive reaction 30 days after the announcement of sukuk issuance . Based on the description, the hypothesis is:

H1: There is a significant Abnormal Return differences between before and after sukuk issuance events.

2. Analysis of trading volume activity on sukuk issuance

In addition to using abnormal return, the information reaction can also be seen through the movement parameter of trading volume activity in the market, (Sari, 2016). Based on Hayati (2012), an announcement containing information resulted in a higher level of stock demand than the stock offering rate so that stock trading volume increased. Instead, if the announcement does not contain information then the level of demand the stock would be lower than the stock

offering rate so stock trading volume decreased. So, increase and decrease in the volume of shares may affect the financial position of the company. Also, the trading volume activity has the information content to test the market efficiency.

Based on Lakhal (2004), they found show that trading volumes are positive and significant the day of good and bad news releases suggesting that informative announcements act on investors' behaviors through trading in firms' shares. Based on Fatimatuzzahra and Herlambang (2014), the statistic results showed probability value of 0.026, which means there is a significant different of trading volume activity before and after of Sukuk publication. The lack of information about Sukuk caused significant negative TVA.

Based on Safira and Simon(2016), the results of their test in different announcement of the study showed that volume trading activity and trading frequency had significant differences before and after the share split. Based on Ghoniyah *et al.* (2008), the test results obtained t-count value is not significant at the time of issuance of Islamic bonds. However, in certain periods there are significant t-counts, namely t-10, t-5, t-1, t 2, t 5, t 6, and t 7.

Ghoniyah *et al.*(2008), this was able to prove that the Announcement of Islamic bonds contain information, thus caused a significant change in trading volume activity. The movement of TVA during the observation period indicate a change of preference from investors on a stock, causing a change of decision to make a sale or buy transaction. So it can be conclude that there is positive and

significant stock activity volume trading on issuance of Islamic bond issuance.

Based on the description, the hypothesis is:

H2: There is a significant Trading Volume Activity differences between before and after sukuk issuance events.

3. Analysis of bid-ask spread on sukuk issuance

Market reaction, based on Sari (2016), can be measured using abnormal return, information reaction can also be seen through the parameter of trading volume activity. Market reaction can also be indicated by transaction costs or bid-ask spreads. Based on Amalia (2016), which states that an increase in transaction cost would decrease the volume of transactions. Investors who predicted that shares of the companies they buy could be profitable, so investor would likely hold their shares for long time, certainly hope that the state the stock price would be higher in the future. Instead, investor would soon release shares that had been purchased, if the stock price was predicted to fall. This is done by investors to minimize the risk that would be faced. So the bid-ask spread would giving an information to investor in order to reduce risk of loss.

Based on Lakhal (2004), the results of their event study methodology were in line with previous studies which show that the unexpected component of voluntary earnings announcements conveyed material information to market participants concluding that it was the surprising effect of the news that changes market expectations. The excess spread increases steadily before the announcement date then it falls down. The results showed that effective spread

decrease after the release of quarterly earnings announcements. Based on the description, the hypothesis is:

H3: There is a significant Bid-Ask Spread differences between before and after sukuk issuance events.

III. RESEARCH METHOD

A. Types and Data Sources

The data used in this research is quantitative data type and data source in the form of secondary data. This research uses data of syariah bond (sukuk) from 2015-2017, wiith the object of research that are sukuk mudharabah and sukuk ijarah issued by the company and listed in Indonesia Stock Exchange. The example of secondary data in this study is an of sukuk issuance information obtained from the *Otoritas Jasa Keuangan (OJK)*, *Kustodian Central Efek Indonesia (KSEI)*, *Bursa Efek Indoensia (BEI)* and from various other sources such as financial statement data published by the *Bursa Efek Indonesia (BEI)*.

Based on Jannah (2016), dependent variable is the main variable that becomes the applicable factor in the research, while the independent variable is the variable affecting the dependent variable either positively or negatively influence. Variable taken in this research is the date of sukuk issuance on 2015-2017 as independent variable and market reaction that can be measured by abnormal return, trading volume activity and bid ask spread as the dependent variable. Sample of this Research are 13 sukuk issuance event from 6 companies.

B. Definition of Operational Research and Variable

1. Definition of Operational Research

a. *Market Reaction*

Based on Sari (2016), to see the capital market reaction to the information content in an event can be measured by using abnormal return which is the difference between the actual return with the return expected by the investor. Based on Sari (2016) in addition to using abnormal return, information reaction can also be seen through the parameter of trading volume activity in the market.

Based on Ittonen (2012), suggested to other researchers include other stock market measures besides abnormal returns in their analysis, because measures like change in volatility volume, bid-ask spread, and systematic risk could provide information that abnormal returns do not offer.

Based on Dowd (2002), liquidity issues affect market risk measurement not just through their impact on our standard measures of market risk, VAR, and ETL but also because effective market risk management involves an ability to measure and manage liquidity risk itself. The main source of liquidity cost is bid-ask spread. Given our earlier discussion of liquidity, we could plausibly assume that transaction cost rise with the size of the transaction relative to market size for the instrument concerned (i.e., Because of adverse market reactions due to limited liquidity) and with the bid-ask spreads.

Based on Sari (2016), trading volume activity compares the number of shares traded within a certain period with the total number of shares outstanding within the same period. Market reaction could also be indicated by transaction costs or bid-ask spreads. Transaction costs affect the volume of stock sales, which also affects the investor's decision to sell or buy shares. Bid-ask spread is the difference of buy and sell price at any given time.

Based on Savitri (2015), the capital market reaction to the information contained in an event can be measured by using the return as a value of price change or by using an abnormal return. Acquisition of return depends on the investor's intelligence in analyzing the information contained in the market. Investors in stock investing can get an abnormal return. Abnormal return is the excess of the actual return occurs to the normal return.

b. *Event Study*

This event study based on Hayati (2012), is used to test the content information (information content) of an event. If it is an event contains information, it would be responded by the market which is indicated by the abnormal return. This study of events is used to test the market efficiently.

Based on Pamungkas *et al.* (2015) event study, is a study of market reaction to an event whose information is published as an announcement with the intention to test the information content of an announcement. Based on

Ayuni (2017), event study can be used to test the information content of an announcement and can also be used to test the market efficiency of semi-strong form.

Based on Pratiwi (2015), if the bond issuance contains information content, then the investor reaction will be seen in the days around the day of announcement of bond issuance.

Based on Ardiyanto (2017), event study can be classified into 4 categories:

a) information content

information content is used to test the information content of an event. If an event has an information content it will be responded by market with the return is not normal.

b) Market efficiency

the second category is a study that tests the market efficiently. Market efficiency testing is the continuation of testing the information content. This test is tests the speed of market reaction to the event.

c) Model evaluation

model evaluation is a research that evaluates the models used in event studies to determine the exact model for the condition.

d) Matric explanation

Explain more about the effect of market reaction . That research used abnormal return as a dependent variabel.

With a given event to be studied, the standard event study technique leaves a limited number of choices to the analyst, thereby reducing the potential for subjective decisions and bias. Probably the most prominent of these choices are as follows: (1) the determination of the estimation window over which to measure the stock's normal movements and correlation with an outside index or indices; (2) the index or indices to use to measure normal movements in the estimation window; (3) the determination of the event window over which to measure the stock's abnormal return; (4) the frequency of data to be studied; and (5) the specification of price measurement (e.g., trading price or bid-asked mid point), (Krivin *et al.*, 2003).

c. *Bond*

A bond based on IDX is a transferable medium-term debt that contains a promise from the issuing party to pay the interest in the form of interest for a certain period and repay the principal of the debt at a predetermined time to the buyer of the bond. Then bonds also have some differentiators, can be differentiated by type, characteristics, price, and yields:

1) Bonds have several different types, namely:

Viewed from the publisher side: Corporate Bonds, Government Bonds, Municipal Bond : bonds issued by local governments to finance public utility projects. Viewed from the interest payment system: Zero Coupon Bonds, Coupon Bonds, Fixed Coupon Bonds, Floating Coupon

Bonds. Judging from the redemption rights or options: Convertible Bonds, Exchangeable Bonds, Callable Bonds, Puttable Bonds.

Viewed in terms of collateral or collaterals: Secured Bonds, Guaranteed Bonds, Mortgage Bonds, Trust Bonds, Unsecured Bonds. Viewed in terms of nominal value: Conventional Bonds, Retail Bonds. In terms of calculating the yield: Conventional Bonds: the bonds are calculated using the interest coupon system. Syariah Bonds: bonds that calculate yields by using profit-sharing calculations. In this calculation is known two kinds of Sukuk.

2. Definition of Variables

a. Sukuk issuance event

The data used in the sukuk issuance event are the date of sukuk issuance for determining the effect on the shares of issuer syariah bonds (sukuk).

b. Abnormal Return

For the statistical models, it is conventional to assume that returns are jointly multivariate normal and independently and identically distributed through time. Formally, we have : 1. Constant-Mean-Return Model, 2. Market model, 3. Other Model (Such as Factor Model and Market-Adjusted-return model). 4. Economic Model (CAPM, APT), (Campbell *et al.*, 1997).

The Market Model represents potential improvement over the Constant-Mean-Return Model. For Economic Models which provide restrictions are the Capital Asset Pricing Model and exact versions of the Arbitrage Pricing Theory (APT). The Capital Asset Pricing Model was commonly used in event studies during the 1970s, (Campbell *et al.*, 1997).

However, the deviations from the CAPM have been discovered, and this casts doubt on the validity of the restrictions imposed by the CAPM on the market model. Since these restrictions can be relaxed at little cost by using the market model, the use of the CAPM in event studies has almost ceased. Some studies have used multifactor normal performance models motivated by the Arbitrage Pricing Theory, (Campbell *et al.*, 1997).

The APT can be made to fit the cross-section of mean returns, as shown by Fama and French and others in 1996, so a properly chosen APT model does not impose false restrictions on mean returns. On the other hand the use of the APT complicates the implementation of an event study and has little practical advantage relative to the unrestricted market model. There seems to be no good reason to use an economic model rather than a statistical model in an event study. Also, a number of other statistical models have been proposed for modeling the normal return, (Campbell *et al.*, 1997).

In this study using a market adjusted return and one of the requirements is to standardize the value of abnormal return. several ways have been used to determine the estimated standard errors that will be used. then, the standard

error of estimation determined based on the standard deviation of returns on the day-t using a cross-section during the event period is done in aggregate for all securities (cross-section), using the market adjusted return. because it only requires a period of events and does not require an estimation period, (Hartono, 2005).

Thats the reason the abnormal return on this research used the market adjusted model. Abnormal return is the difference between the actual return rate and the expected return rate. In this model assumes that the best estimate for the return of a security is the market index return at that time, (Irawan, 2015).

If the return of the announcement market index is 10% than the expected return of all securities at the same time is equal to the market return index of 10%. If the return of a security at the same time by 25%, then the abnormal return for the securities is 15% (25%-10%), (Irawan, 2015). Other model used parameter of estimation, Since the model coefficients of market adjusted model are prespecified, an estimation period is not required to obtain parameter estimation,(Campbellet *al.* 1997).

In this study i used the average abnormal return (AAR) as the measurement variable of abnormal return. Based on Hartono (2005), the testing of abnormal returns is not carried out in each security, but it is done in aggregate by testing the average abnormal return of all securities in a cross-section for each day in the event period.

Besides that on Hartono (2005), there are also other ways to test abnormal returns as well as using cumulative abnormal returns and cumulative average abnormal returns. The additional for CAAR on Rahim and Ahmad (2015), CAAR is more precise representative of the longer term effect on share prices from announcements. Also, this study following the other researcher such as, Mohamed *et al.* (2017), Ghoniyah *et al.* (2008), and Fatimatuzzahra and Herlambang (2014).

The abnormal return formula based on Irawan (2015), in accordance with the market adjusted model as follows to calculate the abnormal return:

$$AR_{it} = R_{it} - E(R) \dots\dots (3.1)$$

Explanation :

AR_{it} = abnormal return of stock i on day t

R_{it} = actual return of stock i on day t

$E(R)$ = expected market return on day t

the abnormal return can also be measured by using this model by Ross et al (2005) . In this case the abnormal return is:

$$AR = R - R_m \dots\dots (3.2)$$

to calculate the abnormal return performed the following steps, (Irawan, 2015):

1) Calculate actual return

actual return of stock obtained by finding the difference between the current price minus the previous day's price divided by the previous

day's stock price. calculate actual return to know comparison of stock price today with share price on the previous day used equation as follows:

$$R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}} \dots\dots (3.3)$$

Explanation:

R_{it} : stock return i at time t

P_{it} : Stock price i at time t

$P_{it} - 1$: stock price i at time $t-1$

2) Calculate expected return

expected return is calculated using the market index because according to market adjusted the best predictor model to estimate the return of a securities is the market index at that time of day. this model does not need to use period estimation because the effect return is estimated equal to market index return, (Irawan, 2015), the formula used is:

$$E(R) = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}} \dots\dots (3.4)$$

Explanation :

$E(R)$ = expected return

$IHSG_t$ = Indeks Harga Saham Gabungan pada hari ke t

$IHSG_{t-1}$ = Indeks Harga Saham Gabungan pada hari ke $t-1$

3) Calculate Average Abnormal Return

$$AAR_t = AAR_t = \sum_{i=1}^k \frac{AR_{it}}{K} \dots\dots (3.5)$$

Explanation :

AAR_t = Average Abnormal Return on day -t

AR_{it} = Abnormal Return for security – i on day –t

K = the amount of securities affected by the announcement event

There are

c. Trading Volume Activity

Trading Volume Activity (TVA), based on Firmansyah (2016) is the ratio between the number of shares traded at a certain time against the number of shares outstanding at a certain time. Based on Firmansyah (2016), the development of stock trading volume reflects the strength between supply and demand, which is a manifestation of the behavior of investors. Rising trading volume is an increase in trading activity of investors in the stock. The increasing volume of supply and demand of a stock, the greater the effect on the fluctuation of stock prices on the stock, and the increasing volume of stock trading shows the increasing interest of the stock by the public so that it will have an effect on the rising prices or return shares. The trading volume activity can also be measured by using this formula, (Utami and Asandimitra, (2017):

$$TVA : \frac{\text{Number of shares } i \text{ traded time } t}{\text{Number of shares } i \text{ outstanding at time } t} \dots\dots (3.6)$$

d. Trading Cost (Bid-Ask Spread)

Based on Dowd (2002), Liquidity issues affect market risk measurement not just through their impact on our standard measures of market risk, VAR,

and ETL but also because effective market risk management involves an ability to measure and manage liquidity risk itself. The main source of liquidity cost is bid-ask spread. Given our earlier discussion of liquidity, we can plausibly assume that transaction cost rise with the size of the transaction relative to market size for the instrument concerned (*i.e.*, because of adverse market reactions due to limited liquidity) and with the bid-ask spreads.

Based on Irawan (2015) states that the broker obtains compensation for the difference between the selling price (ask) and the bid price (bid). Based on on Irawan (2015) defines the bid ask spread is the percentage difference between the bid-price and ask-price or bid-price means the highest price left by the dealer, while ask-price is the lowest price offered by seller to buyer. Based on Irawan (2015) states that the size of the spread is determined by price, trading volume and stock volume.

Also based on Hermawan and Wijayanto (2015), bid ask spread is a market spread, namely the difference between the lowest ask price or commonly referred to as an offer price, with the highest bid price (highest bid). Bid-ask spread formula based on Irawan (2015) is:

$$\text{Bid-Ask Spread} = \frac{(ask - bid)}{\frac{1}{2}(ask + bid)} \dots\dots (3.7)$$

C. Population and Sample

1. Population

Based on Jannah (2016), by Sugiyono the population is measured by the generalization region consisting of objects or subjects that have a certain quantity and characteristics set by the researchers to be studied and then drawn conclusions. The population in this research since 2010 – 2017 are 70 issuance sukuk event on KSEI.

2. Sample

The sample based on Jannah (2016), is part of the population to be studied and in this study using purposive sampling technique. Purposive sampling is a technique of sampling from data sources by using certain criteria. This study uses sample criteria as follows:

- a) Sukuk Issuance event are listed on the Indonesia Stock Exchange (IDX) and registered since 2010-2017.
- b) Sukuk Issuance event are listed on the Indonesia Stock Exchange (IDX) and registered in the period 2015-2017.
- c) Sukuk issuance event, but the companies that issued the sukuk are unlisted in the List of Syariah Securities / *Daftar Efek Syariah (DES)* on OJK in the Period 2015-2017.
- d) Sukuk issuance event, but the event issued in the same time with different series in period 2015-2017

Sample of this Research are 13 sukuk issuance event from 6 companies. Illustration of sample can be seen in this table:

Table 3.1 List of Sample Research

| No | Criteria | Total |
|----|---|-------|
| 1 | Sukuk issuance event are listed on the Indonesia Stock Exchange (IDX) and registered since 2010-2017 | 70 |
| 2 | Sukuk issuance event are listed on the Indonesia Stock Exchange (IDX) and registered before 2015-2017 | (9) |
| 3 | Sukuk issuance event, but the companies that issued the sukuk unlisted in the List of Syariah Securities / Daftar Efek Syariah (DES) on OJK in the period 2015-2017 | (29) |
| 4 | Sukuk Issuance event, but the event issued in the same time with different series in period 2015-2017 | (19) |
| | Sample Sukuk Issuance Event | 13 |

D. Data Collection Method

In this research, the data used are historic data about the number of shares and daily closing price, daily traded share, index daily closing of companies on *Bursa Efek Indonesia (BEI)* and also Yahoo Finance in period 2015-2017. Historic data about Listed date of Sukuk Issuance in Kustodian Sentral Efek Indonesia.

E. Data Analysis Method

This research uses an analysis technique which is divided into two. First, testing of market reaction by using event study. Second, testing of research hypothesis using paired sample t-test using SPSS 21 statistical tools to see the difference before and after sukuk issuance event. This research is taking a sample using purposive sampling technique and the data from data sources by using certain criteria. This research analyzes a sukuk issuance event that expected having influences of the

movement of returns on shares of the company issuers in Indonesia Stock Exchange (BEI), by looking at the events before and after the issuance of sukuk through event study.

This study uses 21 period, In this study also used window period 10 days before the issuance, 1 day at date issuance, 10 days after issuance for event period. Because the announcement event is close to each other, researchers decided to take the windows period of 10 day before and 10 days after. Also the windows period is same with the researcher before on Ghoniyah *et al.* (2008) and Fatimatuzzahra and Herlambang (2014).

The parameters of normal performance are estimated using estimation window, which is set before the event window. In a daily data the estimation sample period is typically over the 120 trading days prior to the event. Usually event period is not included. The example for event window ± 20 days before and after the announcement day, (Campbell *et al.*, 1997).

Based on Krivin *et al.* (2003), they propose three ways to assess the proper length of the event window. One could characterize the possible approaches to determining the length of an event window as belonging to one of three categories: using a fixed length of time, taking an ad hoc approach, or following a rule based on the trading behavior of the stock during the potential event window.

Since the model coefficients are prespecified, an estimation period is not required because this research using market adjusted model to obtain parameter estimation.

This period can be seen in the following figure:

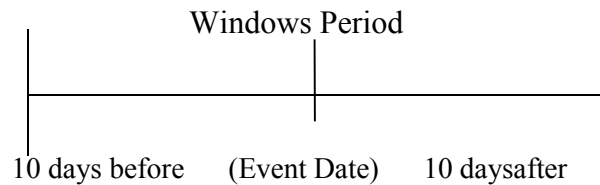


Figure 3.1 Windows Period of Research

1. Normality Test

The normality test in this study will use Kolmogorov-Smirnov Test. Based on Yuliati (2016), the test in this test is a goodness of fit test in which the test is to measure the degree of compatibility between the distribution of a sample set (observational data) with a particular theoretical distribution. Normality tests will be conducted to determine whether the sample is analyzed to represent the existing population or not, so that with known normality data can be done further analysis. The normal distribution is the theoretical distribution of continuous random variables.

According Yuniati (2017), the purpose of this test is to find out whether the sample used in this study by using Kolmogorov-Smirnov test with a 95% confidence level or $\alpha = 5\%$, then the test criteria as follows:

- a. If the value of significance ≥ 0.05 , then the data is normally distributed.
- b. If the significance value 0.05 , then the data is not normally distributed.

2. Descriptive Statistics

Based on Nasution (2017), explains the statistical phase where only trying to describe or analyze the given group without making or drawing conclusions about a larger population or group is called descriptive statistics.

3. T-Test Significancy

a. One Sample T-Test

T-testing Significance in this study will use One Sample T-test. One Sample T-test in Yuliati (2016), states that One Sample T-test is used to prove whether there is an average difference of a sample. This test is conducted to prove the allegation that in the short term and in the long run the company's stock performance.

According to Yuniati (2017), the significance test in this study was tested using a *t*-test, one sample *t*-test during the -day period. The purpose of the test with one sample *t*-test is to show whether there are abnormal return and trading volume activity around the event, i.e. before, during, and after the event. Decision-making uses a 95% or $\alpha = 5\%$ confidence level with the following conditions:

- 1) If $t\text{-arithmetic} > t\text{-table}$, then H_0 is rejected and H_a is accepted.
- 2) If $t\text{-arithmetic} \leq t\text{-table}$, then H_0 is accepted and H_a is rejected.
- 3) If the probability $t > 0.05$, then H_0 is accepted and H_a is rejected.
- 4) If the probability $t \leq 0.05$, then H_0 is rejected and H_a is accepted.

b. Paired Sample T-Test

The paired t - test in this study is to compare between return before and after issuance of sukuk. This testing process uses the SPSS program, Based on Nemara (2015), which is calculated by the formula:

$$T\text{-Arithmetic} = \frac{x_1 - x_2}{\sqrt{\frac{(n_1 - 1)(SD^2_1) + (n_2 - 1)(SD^2_2)}{(n_1 + n_2) - 2} \left[\frac{1}{n_1} + \frac{1}{n_2} \right]}} \dots\dots (3.9)$$

Explanation:

X1 = average of abnormal return, trading volume activity and bid-ask spread before sukuk issuance.

X2 = average of abnormal return, trading volume activity and bid-ask spread after sukuk issuance.

SD1 = deviation standard before sukuk issuance

SD2 = deviation standard after sukuk issuance

N = total sample of this research

In paired sample t-test, the variable are compared between the return before and after the sukuk issuance event. With the following conditions, based on Santoso (2018):

1. If $t\text{-arithmetic} > t\text{-table}$, then H_0 is rejected and H_0 is rejected.
2. If $t\text{-arithmetic} < t\text{-table}$, then H_0 is accepted and H_0 is accepted.
3. If the probability $t > 0.05$, then H_0 is accepted and H_0 is accepted.
4. If the probability $t < 0.05$, then H_0 is rejected and H_a is rejected.

The conclusions based on statistical tests that have been done then the level of confidence used is 95% or $\alpha = 5\%$. Test for Paired sample, each side is divided into 2, to be:

1. If Probability $t / 2 > 0.025$, then H_0 is accepted
2. If Probability $t / 2 < 0.025$, then H_0 is rejected

Explanation:

1. H_0 = There is no significant abnormal return differences between before and after sukuk issuance events.

H_a = There is a significant abnormal return differences between before and after sukuk issuance events.

2. H_0 = There is no significant trading volume activity differences between before and after sukuk issuance events.

H_a = There is a significant trading volume activity differences between before and after sukuk issuance events.

3. H_0 = There is no significant bid-ask spread differences between before and after sukuk issuance events.

H_a = There is a significant bid-ask spread differences between before and after sukuk issuance events.

V. CONCLUSIONS AND SUGGESTIONS

A. Conclusions

Conclusions of this study can be described as follows:

1. Abnormal return indicates that there is no significant differences between before and after sukuk issuance event.
2. Trading volume activity indicates that there is no significant differences between before and after sukuk issuance event.
3. Bid-ask spread indicates that there is no significant differences between before and after sukuk issuance event.

It can be concluded that investors do not react to the publication of sukuk issuance events, which are seen on the result that there is no abnormal returns, trading volume activity, and bid-ask spreads differences between before and after sukuk issuance event in 2015-2017.

B. Suggestions

Based on the results of the research above, suggestions that can be recommended such as:

1. For practitioners,
 - a. For Investors, to consider other factors that can affect stock prices, so that the information obtained is more accurate in making decisions about buying and selling shares on investment.
 - b. For Companies, to reconsider Islamic Financial as an alternative in corporate funding. Also, more consider other factors that can influence, so it is more accurate in making corporate funding policy decisions.
2. For other researcher,
 - a. This research using one of alternative investment of Islamic finance such as sukuk issuance event as an event-study research. Another researcher can take any event beside sukuk issuance event for next research. Such as an Event like Asian Games event, Anomali event, etc.
 - b. Another researcher can also use any different type of sukuk or make classification from any different type of sukuk (e.g. Sukuk Ijarah, Sukuk Mudharabah, Sukuk Musyarakah) for next research.
 - c. This research using windows period of 10 days prior and 10 day after the event. So another researcher can use any suitable windows periode for next research.
 - d. This research using market adjusted model, so there is no estimation period. For another researcher can use any model on event study for next research.

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