

THE INFLUENCE OF FATWA FOR SHARIA STOCK MARKET MECHANISM ON INDONESIA CAPITAL MARKET PERFORMANCE USING TSR METHODOLOGY

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ABSTRAK

Penelitian ini bertujuan untuk menganalisis dan menilai pengaruh fatwa DSN-MUI terhadap kinerja pasar modal Indonesia yang diwakili oleh variabel IHSG. Dalam penelitian ini digunakan model VAR/VECM untuk melihat pengaruh Fatwa DSN-MUI No. 80 terhadap kinerja pasar modal Indonesia yang diwakili oleh Indeks Harga Saham Gabungan. Dalam penelitian ini juga digunakan pendekatan proxy dan interpolasi. Proxy adalah untuk mengeksplorasi nilai theta dan interpolasi untuk mengatasi kekosongan data volume penjualan FCI. Dengan menggunakan metode TSR terlihat bahwa pengaruh perubahan dari theta, sebelum proses screening dengan theta setelah proses screening adalah terhadap variabel harga log (ada peningkatan pengaruhnya, kira-kira 3 kali lipat) sedangkan pengaruh log-variabel vol menurun hingga hampir setengahnya setelah theta mengalami proses screening.

Kata kunci: Pasar modal, Model sosial-eonomi, Metode TSR, Indeks harga saham gabungan

ABSTRACT

This study aims to analyze and assess how fatwa of DSN-MUI affects the performance of the Indonesian capital market represented by the IHSG variable. In this research the VAR/VECM algorithm has been used to form a model to see the impact of the Fatwa DSN-MUI No.80 represented by dummy variable to capital market performance variable Indonesia which in this case is represented by Composite Stock Price Index. In this study also used proxy and interpolation approach. Proxy is to explore theta value and the interpolation is to overcome the void of volume data Sales of FCI. Using TSR method, it can be seen that the effect change from theta, before the screening process with theta after the screening process is to the variable log price (there is increasing of the influence, approximately 3 times) while the influence of the log-vol variable decreases to almost half after theta experienced screening process.

Keywords: Capital market; Socio-economic model; TSR methodology; Composite stock price index

INTRODUCTION

The development of the scientific world is now characterized by the emergence of the concept of Unity of Knowledge from Choudhury (2004), in this case Choudhury (2004) often quoted QS: 36:36 about how Allah created everything in this nature (pairing). Choudhury (2011) argues that arguments, based on the conflict between the world Islamic Unitarian world and the rationalist world view pluralist order, deny the acceptance of other transformation models. Islamization of the capital market is as a process of progressive transformation because the methodology is simulative and not optimized in nature, therefore, it is not necessary to assume the completeness of the information flow at any time in the Islamization model.

The implication of the simulative nature of methodology IIE for sharia capital market transformation is that the assumption of Islamization of an ideal case is not necessary. Furthermore, Choudhury (2011) says that it is replaced by the assumption of changing the view of the shuratic process towards greater Islamic authenticity. As a result of this Choudhury (2011) says that the finances of shariah outlets should be “side-by-side” with speculative instruments. Choudhury (2011) also says that it would thus be assumed that there was a conscious evolution from the shuratic process towards the Islamization of the effective.

Capital market in general can be identified with a place where capital is traded between parties who have excess capital (investors) with people who need capital (issuer) to develop investment. The graphic in Figure 1 shows how the development of capital market in Indonesia has better performance than the capital markets in several other world benchmarks. What caught the attention of the author is, Indonesia’s capital market performance has increased significantly since 2004 compared to other world indices such as Dow Jones, S & P 500 and Nasdaq.

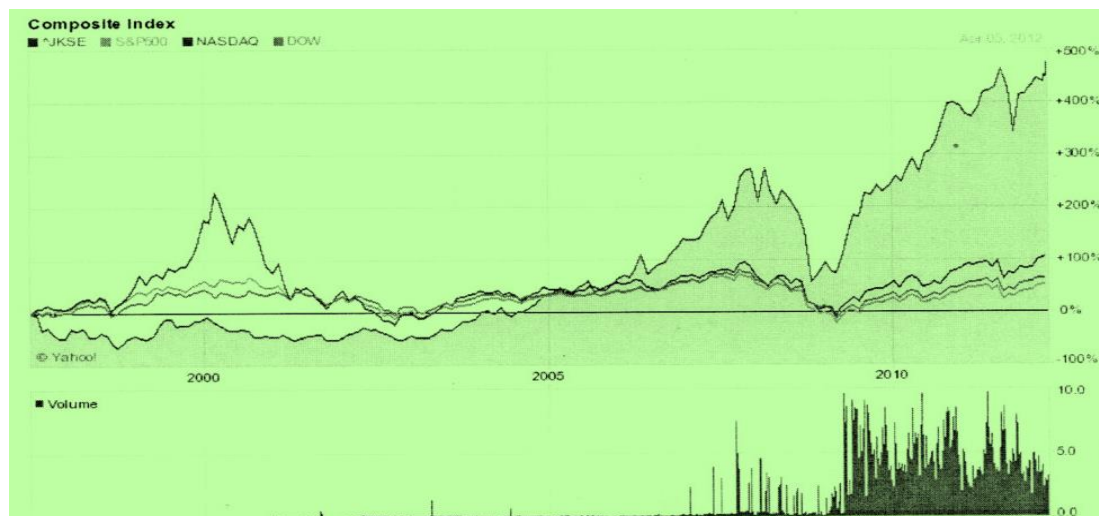


Figure 1. Comparison between the IHSG against Dow Jones, S&P 500 and Nasdaq

There is also information that suggests how the development of sharia capital market in Indonesia which has much better performance than capital market in some benchmark world like Dow Jones, S & S and Nasdaq. What also attracted the attention of the author is, the performance of Indonesia’s sharia capital market has increased significantly since late 2003 compared to other world indices such as Dow Jones, S & P 500 and Nasdaq.

Based on the above phenomenon, the study tries to investigate further, whether there is any correlation between the improvement of capital market performance in Indonesia since 2004 and some MUI fatwa concerning Capital Market in Indonesia. Or in other words whether there is a migration on the ownership of sharia shares of the entry of new investors because the capital market is considered as an Islamic financial instrument.

Gait & Worthington (2008, p. 783-808) say that found from survey’s results, religious beliefs are a key factor in the use of Islamic finance. Based on the findings of survey which say that religious belief is the key other than the other factors, it is necessary to add fatwa that adds Muslim belief to sharia investment in capital market, because with Fatwa, sharia mechanism of stock trading/Fatwa DSN-MUI No. 80 is expected to be very helpful for the majority Muslim community of Indonesia to no longer hesitate step in transacting in the capital market.

The Governor of Indonesia Central Bank, named BI, in 2011 said capital markets in developing countries including in Indonesia, generally shallow and vulnerable to sudden price movements. Arrived impact, it can damage the integrity of the central bank’s financial system. Accordingly, it is said that when faced with investor’s negative sentiment, liquidity in the Indonesian capital market can dry quickly, causing panic selling and the effect is contagious on chaos and financial market instability. But a month later, in early 2012, the President said that the performance of Indonesia capital market

increased strong and credible (the president speech, at the opening of trading of Indonesia Stock Exchange Building, Jakarta, 2 January 2012).

From these two instances, it is necessary to observe the empirical nature of Indonesia's actual capital market performance. In this regard, Indonesia's market capitalization is quantitatively in third place, with the largest market capitalization is still held by Singapore at USD 477.6 billion, followed by Malaysia USD 387.92 billion and Indonesia USD 371.70 billion. While in the next sequence there is Thailand USD 26.63 billion, Philippines USD 152.14 billion.

In relation to the actuality previously outlined, the research aims to realize some objectives as follows:

- To examine and analyze whether the Indonesia Composite Index, named as the IHSG, price variables and ISHG volumes variables have been integrated into dummy variables of the DSN-MUI fatwa No.80 and all variables of Indonesia Capital Market Performance.
- To examine and analyze how the causality relationship between Indonesian Capital Market performance variables before and after the DSN-MUI fatwa No.80.
- To examine and analyze whether the JCI variable data before MUI Fatwa is stationary.
- To examine and analyze whether the JCI variable price after the MUI Fatwa is stationary.
- To study and analyze whether the data of IHSG volume variables after MUI Fatwa is stationary.

The main contribution of this work is the reality that this research can be considered as preliminary research on the implication between Sharia Trade Fatwa (Fatwa DSN-MUI No.80) and Indonesia Capital Market Performance by TSR method which in technical analysis is using VAR method. This research can also be used as input for investors who want to place their funds in Indonesia stock market, especially for those who are more interested in Sharia-based stocks.

Expected Outcomes and Importance

From this research it is expected to know clearly how far Fatwa sharia stock trading mechanism (Fatwa DSN-MUI No. 80) affects the performance of Indonesia capital market, so it is expected this research can help for investors mark decisions in running investment business in finance, especially in Indonesia capital market. Furthermore, this research can be used as a reference for MUI Fatwa.80 to trigger the increasing interest of investors in Indonesia capital market.

Additionally, in this research, four variables are used, two variables are Indonesian capital market performance variable, one dummy variable is representation of MUI Fatwa No.80, and one theta variable, mathematical exploration of Indonesian capital market performance variable in this case represented by IHSG and performance variable of sharia capital market of Indonesia represented by value of JH.

LITERATURE REVIEW

According to Roziq and Mubarok (2012, p.99) shares included in the sharia index are listed companies whose business activities are not contradictory to share: gambling and ambling business or gambling trade; business of conventional financial institution (ribawi) including conventional banking and insurance; businesses that produce, distribute and trade food and beverages that are unlawfully haram; business that produces, distributes or provides goods or services that could be moral damaging.

Obaidullah (2001) expresses ethics in sharia capital market, that is every person free to do contract (freedom contract) as long as still according to sharia, clean from element of usury (freedom from al-riba), gharar (excessive uncertainty), at-qimar / gambus Gambling), al-maysir (unearned income), price control and manipulation, dharar (detriment) and unrestricted public interest, as well as fair price (entitlement to transact at fair price) and there is accurate, sufficient, and accurate information (entitlement to equal, adequate, and accurate information).

Chronology of Sharia Capital Market Developments in Indonesia

This history of the Sharia Capital Market can be traced from the institutional developments involved in setting up the Sharia Capital Market. These developments began with the MoU between Bapepam and DSN-MUI on March 14, 2003. The MoU demonstrated an agreement between Bapepam and DSN-MUI to develop sharia-based capital markets in Indonesia.

The next is development of Rules and Fatwa related to sharia capital market. On November 23, 2006, Bapepam-LK issued a package of Bapepam-LK Regulations related to Sharia Capital Market. The

regulation package is Bapepam and LK Regulation Number IX.A.13 concerning Issuance of Sharia Securities and Number IX.A.14 concerning Akads used in Issuance of Sharia Securities in the Capital Market. Subsequently, on August 31, 2007, Bapepam-LK issued Bapepam-LK Regulation Number II.K.1 regarding Criteria and Issuance of List of Sharia Securities and followed by the launch of the first Sharia Securities List by Bapepam-LK on September 12, 2007. On 30 June 2009, Bapepam-LK has made improvements to Bapepam-LK Regulation Number IX.A.13 concerning Issuance of Sharia Securities and II.K.1 concerning Criteria and Issuance of List of Sharia Securities.

Vector Auto Regressive

Sims (1980) vector auto regressive (VAR) model has evolved into a popular tool in empirical research in macroeconomic and financial time over the past two decades. VAR is a time-reduced model of the economically estimated form with ordinary least squares. The VAR model provides a multivariate framework in which changes in a given variable are associated with changes in its own lag and other variables and lag changes from those other variables. The VAR model argues that if there is a simultaneous correlation between other variable. The VAR model argues that if there is a simultaneous correlation between the observed variables, the variables need to be treated equally so that no endogenous and exogenous variables are present. Because VAR describes the dependent variable only in the predetermined lagged variable form, the VAR model is called the reduced-form model. Analysis in VAR model includes co-integration test, Granger causality test, impulse response function analysis and forecast error variance decomposition.

The advantages in the VAR method of the overall analysis of the model can provide an optimum time-based policy analysis of decision markers. This is due to the VAR method, to be corrected by Impulse Response Functions and Variance Decomposition, both of which can also be considered as methods that explain AR dynamically.

In the Perspective of Tawhid String Relations (TSR)

According to Choudhury (2002) in Tawhid String Relation that the source of knowledge is where the Qur'an is a holy book / revelation that explains the knowledge of God's supernatural being called as Tawheed. The Qur'an is given to humans in order that humans make this epistemological order symbolized by (I©, S). According to the Qur'an, that science is a revelation revealed to man through the "shuratic process". Shuratic process is a process that deals with humans and nature. In this system will appear strong interaction. Through this integration, in turn, is followed by the evolutionary process of Epistemology in Surah Al Baqoroh verse 208.

With the limited knowledge of human beings, they cannot understand how Allah commanded to enter Islam (more precisely dikul Islam) in kaaffah (totality), through His other words in Surah Ali Imron verse 31 Allah commands to follow the Prophet Muhammad Shollallahu 'alaihi Wassalam (PBUH/Peace be upon Him) to live all aspects of life. All life and death are always in a state of carrying out all the commands of Allah Subhanahu wa Ta'ala (Allah The Sacred and The Mighty) and its implementation must be in accordance with the guidance of the example of the behavior of the Prophet and all its teachings. In another verse Allah SWT enjoins to avoid eating the treasures of fellow human beings as well as fellow believers by the false path 9 (QS 4:29), while in the capital market there are transactional patterns which are false and also among them are speculative, in Al Maidah verse 90 there is God's command to abandon maisir transaction. Maisir or gambling is speculative. The gambling transactions are prohibited by Allah SWT in the Qur'an. In the capital market there are also many capital market actors who are Moslems, and also among many others who want the pattern of transactions that are not conflicted with the Qur'an or patterns of transactions in accordance with sharia. For that they can learn and discuss through the process of musyawarah (shuratic process). This is denoted by $X(\hat{I})$

With this understanding of the relationship, humans and society create a world order based on the Qur'an and Sunnah and the knowledge they possess. Therefore, through the interaction and integration among them, through the process of slow development it appears Social Wellbeing Function, this is denoted by $W(\hat{I}, X(\hat{I}))$. In this research, through the interaction of capital market actors, the policy makers in this country, the expert councils and clerics of Indonesia, both the direct and indirect interactions through various writings and discussions, and in turn there is also a process of integration. The understanding of the need for a solution in the form of a fatwa that provides an outlet for capital

market actors who want to have investments in stocks that qualified or at least do not conflict with the provisions of sharia.

Suriadi (2013) makes a comparison of TSR methodological analysis results, with and without knowledge induced- \hat{I} , intended to provide an overview and perspectives of problem solving with the implementation of moral and social ethical values as the quality or non-numerical values present in each variable. The TSR methodology provides and offers alternatives in an Islamic perspective that can be expected to be more humanist, realistic and religious.

In Tawhidi String Relations (TSR) methodology or knowledge unity methodology shows the existence of interactive, integrative and evolutionary learning experiences arising from the interrelation between the critical domains of Islamic law. Tawhidi's methodology is applied in all living systems that originate from Islamic law namely the Qur'an as the beginning of all knowledge (primordial stock of knowledge) which is the words of God. Knowledge in the Qur'an ($\hat{I}\odot$) is an absolute truth, which includes all aspects of life that are comprehensive (then therefore it is final and perfect so cannot be changed e.g. plus or minus (irreducible). The Qur'an is manifested in real life by the Prophet Muhammad ($\hat{N},,$) of the Qur'an itself. Accordingly, this methodology seeks to produce transcendent science, which is also supported by empirical and rational truths as the main benchmark of current scientific truth.

Some Research with TSR Methodology

Prior to this research, there have been several previous studies which also used the methodology of Tauhid String Relation where the most important variable in this methodology is theta ($\hat{I},$) variable. Some of these studies, among others, are conducted as follows:

- Mariyati (2011) with TSR approach and simultaneous equation model, found that theta is very influential to socio-economic factors that can reduce poverty in Indonesia, but in discovery Mariyati (2011) variable Zakat Infaq Shodaqoh (ZIS) and financing in BMT very large theta affect on poverty reduction.
- Budhiyana (2011) found that by incorporating the theta in his research the variable greatly influenced the behavior of Micro Entrepreneur (ME) in Indonesia. Meanwhile Herijanto (2011) did not include the theta element in his research but he also found that the level of spirituality, manifested into faith and piety, was higher in sharia banks that in conventional banks, arguing that Islamic banks were closer to the principle of unity.
- Rizqullah (2013) in his research only states that the existence of theta in every function of equation to ensure that every discourse or interaction, integration and evolution relating to people, institutions, instruments, policies, and other variables that affect the spin-off process UUS constantly referring on the underlying Qur'an and Sunnah. Because of the existence of the theta in the UUS spin-off process, in his research he found that the UUS spin-off process was the best spin-off method to become a Sharia Commercial Bank.
- Prabowo (2013) in his research tried to obtain theta value by doing proxy of HDI and GDP variable. In this case Prabowo (2013) refers to the mathematical exploration done by Choudhury and Zaman in an article published in 2008. In this experiment they tried to do mathematical exploration to obtain theta value, in the way conducted by Prabowo (2013) but was using the value of price and volume of JCI before the theta process screening, then because those shares after experiencing the screening process obtained sharia stock index it's known as the Jakarta Index of JII.

Conceptual Framework for Research and Research Hypotheses

There is also about the conceptual framework as illustrated in Figure 2, there are some notes that need to be known, the first is the theories or research results that link a fatwa or any policy or event with the volume of sales and stock prices, it has been made as follows:

- Nurmala (2001) tried to see the effect of dividend policy with stock price change and the result was not significant.
- Ardiansyah (2002) attempted to examine the effect of bonus stock announcement on stock trading volume around the occurrence of the event, namely market reaction in the form of changes in trading volume of shares between before and after the announcement. In this study the event is the announcement of bonus shares, while in the framework of research thinking above the event is a fatwa issued by DSN-MUI regarding the mechanism of sharia stock trading. There is also the

influence of fatwa Sharia stock trading mechanism on the performance of the Indonesian capital market, for the time being according to the author's observations there has been no other researcher who took the topic of similar research that the author is doing. The influences of fatwas for bank interest on the performance of banking are quite a lot among others (Ziyad, 2010).

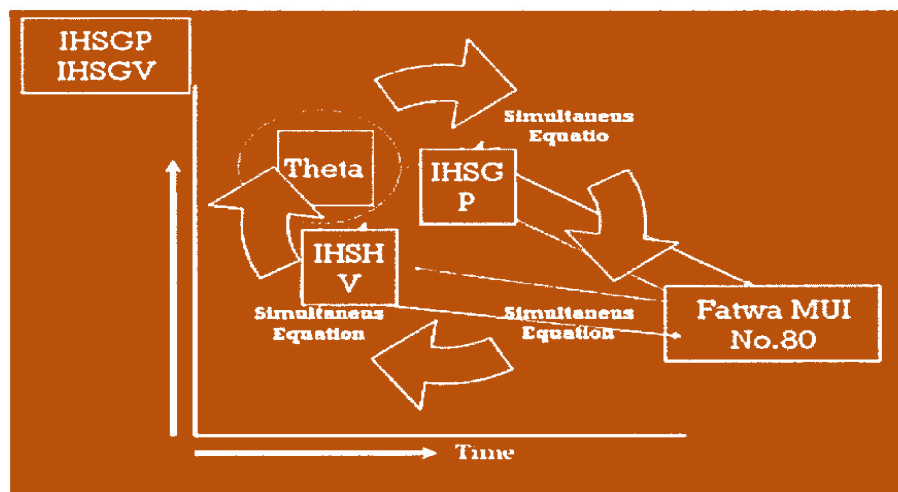


Figure 2. The conceptual research framework

According to Jones (2000) the stock market is a market for long-term securities, such as stocks and bonds. The development of the capital market can be reflected from the fluctuations in stock market prices and the volume of transactions. (Weston & Brigham, 1993) define the stock price as the price at which a stock is sold on the exchange. Therefore, in measuring the performance of the Indonesian capital market, both conventional and sharia, the stock price variables are taken, in this case ISHG (composite stock price index) as well as special sales volume for conventional ones, while sharia stock price index and data sales which are conventional. Anything that is meant by the Composite Stock Price Index according to Ang (1997) is a value used to measure the working performance of shares listed on a stock exchange. The combined meaning here means the performance of shares included in the number of shares of more than one, there are 20 stocks, 30 shares, 40 shares, 45 shares, and even all shares listed on the stock exchange. JCI is used to calculate the market return in the expectation return, where the formula used in the JSE is the weighted average method of the Paasche formula.

Based on explanation and discussion given previously, some research hypotheses are defined in this study as follows:

1. There is a long-term relationship between Indonesian capital market performance variable, is price and volume of JCI both and after the DSN-MUI Fatwa No.80 in 2011.
2. Fatwa DSN-MUI.80 in 2011 which is represented in the form of Dummy Variable, has been co-integrated with all other variables (IHSG Price, IHSG Volume, and Theta).
3. IHSG price variable in the study period prior to Fatwa DSN-MUI No.80 2011 are not stationary (having root units) before logged or made first-difference.
4. IHSG Volume variable in the study period prior of Fatwa DSN-MUI No.80 in 2011 are not stationary (having root units) before logged or made first-difference.
5. IHSG Price variable in the study period after the Fatwa DSN-MUI No.80 in 2011 are not stationary (having root units) before logged or made first-difference.
6. IHSG Volume variable in the study period after the Fatwa DSN-MUI No.80 in 2011 are not stationary (having a root unit) before logged or made first-difference.
7. There is a causality relationship between the ISHG price variables and the Volume Variables of IHSG before Fatwa DSN-MUI No.80.
8. There is a causality relationship between the ISHG price variables and the Volume Variables of IHSG after Fatwa DSN-MUI No.80.

The population of the research data includes all weekly data of the composite stock price index starting from the availability of the composite stock price index data that was on August 10, 1982 with

a value of 100 to the data accessed online up to the weekly data on May of 2013. About sample data for more details were made into some grouping of data.

First, grouping in order to see whether by using only VAR Method (without including theta variable), there is a difference between before and after Fatwa DSN-MUI No.80. For this purpose the data is purposely grouped into two groups of data which are:

1. Data before the issue of Fatwa DSN-MUI No.80
2. Data after the issue of Fatwa DSN-MUI No.80

There are also samples to the data before the DSN-MUI 80 taken from the weekly data on price and volume of stock index in January 2009 until the issuance of the DSN-MUI Fatwa in 8 May 2011. There is also a sample of the data after DSN-MUI Fatwa 80 starting from the month after the weekly DSN-MUI fatwa issued that after the month of May is June 2011 until May 2013, weekly data.

Second, the research data sample includes all weekly data on price and volume of JCI commencing from January 2009 until May 2013. In this case the DSN-MUI 80 is represented as a dummy variable which actually indicated the difference between the time before its Dummy Variable denoted by the number 0, while time after Fatwa denoted by the number 1. In this study using the TSR methodology are used also variables explored by the using of proxy theta value price and volume of JCI counted from January 2009 to May 2013, for a value before Screening process theta, and used the JII price value for theta after screening process value.

METHOD

This research is quantitative research, focusing on secondary data, but as a reference in analyzing research result used several variables. The study also features some limited, casuistic cases that will be presented in depth. Some casuistic cases of concern to the authors are whether the impact of the MUI Fatwa No.80 negatively affects the investor portfolio of stock suspected non-syar'i, or vice versa positively affecting the acquisition or portfolio of investors to syar'i shares.

Quantitative data processing is done through data processing technique using TSR methodology. Note that some studies (using TSR methodology) were previously created using Vector Autoregressive, Suriadi (2013) with its induced \hat{I} , (theta) and Prabowo (2013) variables by determining the amount of \hat{I} , (theta) based on HDI levels and growth rates GDP.

In this study, the magnitude of \hat{I} , (theta) is approximated by proxy, similar to that made by Prabowo (2013) in his study entitled A Theory of Ethical Endogeneity In Socioeconomic Development: A Mathematical Exploration. If in Prabowo's study (2013) which becomes the reference in determining the magnitude of \hat{I} , (theta) is the level of HDI and the GDP level then in this study the two variables themselves by assuming that in both variables tsb. Namely the price of IHSG and the amount of sales also can be used as a reference to explore the magnitude of \hat{I} , (theta) by proxy.

Exploring the value of δ'' (theta) by proxying from the value of JCI and Volume itself based on the theta sense itself is the theta of the fundamental epistemology for specific problems and issues to investigate. However, in the next exploration in this study selected value of δ'' (theta) which has passed the screening process, that is from value of JII which is proxied. This is considered more representative because of the screening process of non-syar'i shares to the syar'i shares.

VAR Method (Vector Auto Regressive), first introduced by Sims published by Econometric a magazine (1980). The uniqueness of this method compared to the previous method is to do the decomposition of variables in a matrix so that each other is interdependence, so in this case it is not distinguished on independent variables, moderating variables, intervening variables and dependent variables. Variables that will be used in research are stock price and sales volume which is weekly.

The VAR method is also highly compatible with the TSR (Tauhid String Relation) method that is widely used to quantitatively analyze the observed variables in various scientific disciplines. With TSR Method also all the independent and independent variables are only The Almighty Allah SWT, so similar to the TSR method of Choudhury's concept that, all variables affect each other. In this research also used two other variables (besides price and volume of IHSG), which is a representation of MUI Fatwa which is symbolized as Dummy Variable to five emphases on indicators before and after the existence of MUI Fatwa. There is also the other variable is δ'' (theta) obtained through the proxy approach (Choudhury & Zaman, 2008).

The advantages of the VAR method include the inclusion of a valuation method between the variables in a single matrix decomposition, or the so-called Impulse Responses Function (IRF).

Furthermore; IRF can measure variables arranged in matrices with three categories, in the form of direct influence (direct relationship), indirect relationship (indirect relationship) and spurious relationship or spurious regression.

RESULT AND DISCUSSION

From the results of data processing with VAR method some important information as follows is obtained:

1. The VAR method produces a simultaneous equation; in which all variables are endogenous variables and the chance makes it dependent variable. In the TSR methodology, all dependent, unrelated or independent variables are simply The Almighty.
2. VAR captures the variable lag of the independent variable and the dependency of the dependent variable itself so as to describe a complete relationship between the influence of internal factors and external factors. There are many independent variables, so it becomes very complicated when reading the results of coefficient number one by one.
3. Data is not stationary at the level, eliminating the long-term relationship formed in the analysis of forecast error variance decomposition (FEVD), so it is suggested that VAR is transformed to Vector Error Correction Model (VECM).

The results of processing using the VECM method, indicate several findings, i.e. the VECM method has often been used by researchers for data analysis with Impulse Response Function (IRF) and long-term relationship Forecast Error Variance Decomposition (FEVD) is helpful for the analysis of various relationships in variables, especially those not found in standard economic theory (Suriadi, 2013).

Hypothesis 1, based on testing of both Trace Statistic and Max-Eigen Statistic which is smaller than its critical value and its probability is 0.1344 (p-value of Trace Statistic) and 0.1530 (p value of Max-Eigen Statistic) greater than 5% no co-integration can be detected. Thus, between the Indonesian capital market performance variable, the price and volume of IHSG before Fatwa DSN-MUI No.80, there is no association or relationship in the long term and does not equally move in the long run.

- Based on both the Trace Statistic and Max-Eigen Statistic tests that are greater than the critical value and the probability of 0.0230 (p-value of Trace Statistic) and 0.0167 (p-value of Max-Eigen Statistic) greater than 5% there is a state of co-integration. So between the Indonesian capital market performance variable, the price and volume of IHSG before Fatwa DSN-MUI No.80, there is association or relationship in long term and equally moves in long term.

Conclusion for Hypothesis 1 is to reject H_0 and to accept H_a because there is no long-term relationship between performance variables of Indonesia capital market for data before Fatwa DSN-MUI No.80, but there is long-term relationship between performance variables of Indonesia capital market for data after Fatwa DSN-MUI No.80.

- Hypothesis 2, based on testing in advance both Trace Statistic and Max-Eigen Statistic is greater than the critical value and the probability is 0.0002 and 0.0007 (p-value of Trace Statistic); and 0.0151 and 0.0058 (p-value of Max-Eigen Statistic) are smaller than 5%, meaning there is co-integration in none and at most one. So between Dummy Variable and all other variables there is co-integration, in this case Dummy variable representing Fatwa SSN-MUI No.80, so there is co-integration between Fatwa SSN-MUI No.80 with IHSG price and Volume and Last Theta. Based on testing in advance both Trae Statistic and Max-Eigen Statistic are greater than the critical value and the probability is 0.0000 and 0.0050 (p-value of Trace Statistic); and 0.0006 and 0.0067 (p-value of Max-Eigen Statistic) are less than 5%, meaning there is co-integration in none and at most one. So between Dummy Variable and all other variables there is co-integration, in this case Dummy variable representing Fatwa DSN-MUI No.80 with IHSG price and Volume and Last Theta. The conclusion for Hypothesis 2 is to accept H_0 and to reject H_a , namely Fatwa DSN-MUI.80 in 2011 which is represented in the form of Dummy Variable, already co-integrated with all other variables (IHSG Price, IHSG Volume, and Theta).
- Hypothesis 3, based on the unit root test, the absolute value (t-Statistic < critical value) at any level and p-value > of 5%, then we accept H_0 (Null Hypothesis) and reject H_a . So IHSG Price Variable in the period of research before Fatwa DSN-MUI.80 in 2011 is not stationary (having root unit) before logged or made first-difference.
- Hypothesis 4, Based on the unit root test result it turns out that H_0 (Null Hypothesis: IHSG Vol has a unit root) is rejected because the absolute value of t-Statistic when compared with the absolute

value of the critical value, it is still greater than the absolute value of t-Statistic from the critical value at which level (1%, 5%, and 10%) and the p-value (probability) is 0.0000 is still smaller than 5%. So H_0 is rejected and H_a accepted, that is variable of JCI Volume in research period before Fatwa DSN-MUI.80 in 2011 is stationary (do not have root unit) before logged or made first-difference.

- Hypothesis 5, based on the unit root test, the absolute value (t-Statistic < critical value) at any level and p-value (probability) > 5%, then accept H_0 (Null Hypothesis) and reject H_a . So IHSG price variables in the study period after the Fatwa DSN-MUI.80 in 2011 are not stationary (have root unit) before logged or made first-difference.
- Hypothesis 6, based on the unit root test results it turns out that H_0 (Null Hypothesis: IHSG Vol has a unit root) is rejected because the absolute value of t-Statistic when compared with the absolute value of the critical value at which level (1%, 5%, and 10%) and the p-value (probability) is 0.0000 is still small then 5%. So H_0 is rejected and H_a accepted, that is variable of JCI Volume in research period after Fatwa DSN-MUI.80 in 2011 is stationary (do not have root unit) before logged or made first-difference.
- Hypothesis 7, based on the result of the Granger Causality test it is proved p-value (probability) > of 5% then it means there is no causally relationship between price and volume of IHSG.
- Hypothesis 8, Based on the result of the Granger Causality test it is proved p-value (probability) > of 5% then it means there is no causality relationship between price and volume of IHSG after Fatwa DSN-MUI No.80.

With the data of 124 periods, it is found that the effect of Dummy Variable on every change from theta variable before the screening process is 18.75%, but the effect is not on the theta variable after the screening process is 0.00. With data of 225 periods of influence of Dummy Variable on every change from theta variable before screening process equal to 22.81%, but the effect is not equal to theta variable after screening process that is equal to 0.00.

Instead the theta effect before the screening process against the Dummy Variable with the data of 124 periods is 0.40%, while theta effect after the screening process is 0.24%. with the data 225 periods of theta influence before the screening process on each change in the Dummy Variable is 0.40% as well as the theta effect after the screening process remains at 0.24%.

For the log-vol variable with 124 periods of dummy variable influence on it actually decreased from before the screening process by 0.21% to 0.18% after the screening process. For variable log-vol the theta variable influence against it even decreased from before screening process equal to 16.79% before equal to 8.79% after screening process. The most striking is the influence of theta variable with 225 periods against the variable long price before the screening process is 23.67%, after theta passes the screening process to screening process that is equal to 27.66% after theta passed screening process become 63.54%.

CONCLUSION

Based on the results obtained and the analysis conducted it can be concluded that there is co-integration, i.e. there is association or long-term relationship and is integrated of the same order between JCI price variables and JCI volume variables with dummy variables of the DSN-MUI Fatwa No.80 and all variables of Indonesia Capital Market Performance.

After statistically tested, the study also found that there was no causality relationship between Indonesian Capital Market performance variables before and after the DSN-MUI fatwa No.80. In the analysis and discussion in the previous chapter. It has been proved that there is no causality relationship between the variables of Indonesian capital market performance which in this case is represented by price and volume variables of IHSG.

After statistically tested, the data of JCI price variable before Fatwa MUI is not stationary, meaning that the price of IHSG variable before MUI Fatwa has not fulfilled the requirement to be included in the VAR model, therefore the price variable data must be logged first to be stationary or made first-difference first. Based on the unit root test, the absolute value (t-Statistic < critical value) at any level and p-value > 5%, then accept H_0 (Null Hypothesis) and reject H_a . So IHSG Price Variable in the period of research before Fatwa DSN-MUI.80 in 2011 is not stationary (having root unit) before logged or made first-difference.

After statistically tested the data of HIS volume variable before Fatwa MUI is stationary, meaning the price data of JCI price before Fatwa MUI has met the requirements to be inserted into the VAR model. Based on the above test results turned out H₀ (Null Hypothesis; IHS Vol has a Unit root) is rejected due to absolute value t-Statistic than at its critical value at any level and the p-value (probability) is still smaller than 5%. O IHS Volume before Fatwa DSN-MUI No.80 year 2011 is stationary (does not have root unit) before logged or made first-difference.

After being tested statistically the data of JCI price variables after MUI Fatwa Not stationary. This can be shown based on unit root test (unit root test), Absolute value (t-Statistic < critical value) at any level and p-value (Probability) > of 5%. So IHS Price variable in the period after research Fatwa DSN-MUI No.80 of 2011 is not stationary (has a root unit) before logged or even made first-difference.

After tested statistically turns out variable data of IHS volume after Fatwa MUI is getting stationary. Based on the results of the above test it turns out that H₀ (Null Hypothesis: IHS Vol has a unit root) is rejected because the absolute value of t-Statistic when compared with the absolute value of the critical value, the higher the absolute value of t-Statistic than the critical value at which level and the p-value (probability) is still less than 5%. So IHS Volume in the research period after Fatwa DSN-MUI.80 in 2011 is stationary (does not have root unit) before logged or made first-difference. So the data of IHS volumes after the Fatwa MUI is stationary.

The study of TSR methodology especially concerning the premise of simultaneous equation, participatory among agents and wellbeing function, in concentration of Islamic Economic & Finance (IEF) is still not done by researchers, which in this study alone was quoted from several researchers a.l.: Mariyanti (2011), Suriadi (2013), and Prabowo (2013). For further research it is suggested as follows:

- Measuring and scaling (index) of theta value, it is expected that more future researchers can explore theta value and is not limited by proxy only.
- The VAR and VECM methods that have already begun to be used in order to apply the TSR methodology have evolved and have been widely used to solve sensitive and moving variables dynamically, and not yet in standard economic theory such as stock prices, price indices, exchange rates, and many more, which are theoretically assumed as causality in all directions. Usually used in the range of variable numbers, about 4-6 variables, (which in this study used only 4 variables) and long time series data, where the results in various cases can be quite satisfactory. (Ascarya, 2008)

Last but not least is also suggested to the next researchers, i.e. if this study is only able to use weekly data, it is expected for further research if possible please use daily data, in order to achieve more accurate results.

REFERENCES

- Ang, R. (1997). *Buku pintar pasar modal Indonesia* (1st ed.). Mediasoft Indonesia.
- Ascarya. (2008). *Aplikasi vector autoregression dan vector error correction model, menggunakan Eviews 4.1*. Center of Education and Central Bank Study, Bank Indonesia.
- Budhiyana, B. R. (2011). *Pengaruh unsur institusi terhadap produktivitas petani beras dalam analisa ekonomi Syariah di Jawa Barat, Indonesia*. Universitas Trisakti.
- Choudhury, M.A. (2002). Development using islamic financing and organizational instruments: Modality and practicum. *International Journal of Social Economcs*, 29(1/2), 119-134.
- Choudhury, M. A. (2004). *The Islamic world-system: A study in polity-market interaction*. Rutledge Curzon.
- Choudhury, M. A. (2011). *The nature of Islamic socio-scientific inquiry theory and application to capital markets*. <http://www.emerald-library.com>
- Choudhury, M. A. & Zaman, S. I. (2008). *A theory of ethical endogeneity in socioeconomic development: A mathematical exploration*.
- Gait, A., & Worthington, A. (2008). An empirical survey of individual consumer, business firm and financial institution attitudes towards Islamic method of finance. *International Journal of Social Economic*, 35(11), 783–808.
- Herijanto, H. (2011). Kualifikasi personal, lingkungan institusi, dan lingkungan proses, serta pengawasan dalam pemberian pinjaman/pembiayaan terhadap timbulnya NPL/NPF: Studi komparatif di bank konvensional dan di bank syariah di Indonesia. Disertasi Doktor, Universitas Trisakti.

- Jones, P. C. (2000). *Investment: Analysis and management* (7th ed.). John Wiley & Sons, Inc.
- Mariyanti, T. (2011). *Faktor sosial ekonomi yang mempengaruhi penurunan kemiskinan di Indonesia dalam perspektif Islam*. Universitas Trisakti.
- Nurmala. (2001). *Pengaruh kebijakan dividen terhadap harga saham perusahaan-perusahaan otomatis di Bursa Efek Jakarta*.
- Obaidullah, M. (2001). Ethics and efficiency in Islamic stock markets. *International Journal of Islamic Financial Services*, 3(2), 15–23.
- Prabowo, H. S. (2013). *Epistemological approach to study sustainable socioeconomic development in the petroleum sector in Indonesia*. Universitas Trisakti.
- Rizqullah. (2013). *Metode spin-off unit usaha Syariah bank konvensional menjadi bank Syariah dengan analytic network process (ANP)*. Universitas Trisakti.
- Sims, C. (1980). Macroeconomics and reality. *Econometrica*, 48(1), 1–48.
- Suriadi, J. (2013). Faktor-faktor yang mempengaruhi tingkat proporsi micro-entrepreneurs di Indonesia: Analisis status pekerjaan berdasarkan metodologi Tawhidi String Relation (TSR)". Disertasi Doktor, Universitas Trisakti.
- Weston, J. F., & Brigham, E. F. (1993). *Essential of managerial finance* (10th ed.). The Dryden Press.
- Ziyad, M. (2010). Analisis kinerja keuangan Bank Muamalat Indonesia sebelum dan sesudah fatwa haramnya bunga bank oleh MUI. *Jurnal Manajemen dan Akuntansi*, 11(1), 46–52.