WHAT DETERMINES ISLAMIC STOCK RETURNS IN INDONESIA?

Rina Novi Yani[1]
Muhammad Arfan[2]
M. Shabri Abd. Majid[3*]

[1]Universitas Syiah Kuala, dan
Sekolah Tinggi Ilmu Administrasi Pelita Nusantara, Nagan Raya, Aceh, Indonesia
[2,3] Universitas Syiah Kuala, Banda Aceh, Indonesia
Corresponding email: mshabri@unsyiah.ac.id

ABSTRACT – This study aims to empirically explore and analyze the effects of profitability, liquidity, solvency, and firm size on the rate of returns of Islamic stocks in Indonesia. A total of 30 companies registered in the Jakarta Islamic Index were selected as samples of the study using purposive sampling techniques during the 2013-2017 period and estimated using the panel model of Generalized Least Square (GLS). This study found evidence of a positive and significant effect of profitability on the Islamic stock returns, while liquidity, solvency, and company size were documented to insignificant in affecting the Islamic stock returns. The results of this study imply that to gain a maximum rate of returns, investors should pay attention to the profitability gained by the companies listed on the Islamic stock market.
Keywords: Company size, Investment diversification, Islamic stock returns, Liquidity, Profitability, Solvency.

ABSTRAK – Apakah yang Menentukan Tingkat Pengembalian Saham Syariah di Indonesia?
Penelitian ini bertujuan untuk menguji dan menganalisis pengaruh profitabilitas, likuiditas, solvabilitas, dan ukuran perusahaan terhadap tingkat pengembalian saham syariah di Indonesia. Sebanyak 30 perusahaan yang terdaftar di Jakarta Islamic Index dipilih sebagai sampel dalam penelitian ini dengan menggunakan teknik purposive sampling selama periode 2013-2017 dan diestimasi dengan model panel Generalized Least Square. Penelitian ini menemukan bukti bahwa profitabilitas berpengaruh positif dan signifikan terhadap tingkat pengembalian saham syariah, sedangkan likuiditas, solvabilitas, dan ukuran perusahaan tidak berpengaruh signifikan terhadap tingkat pengembalian saham syariah. Hasil penelitian ini menunjukkan bahwa untuk memaksimumkan tingkat pengembalian, investor harus memperhatikan keuntungan yang diperolehi perusahaan yang terdaftar di pasar saham syariah.
Kata Kunci: Diversifikasi investasi, Likuiditas, Profitabilitas, Return saham syariah, Solvabilitas, Ukuran perusahaan.

INTRODUCTION

Capital markets are avenues for investment activities that are not prohibited in Islam. Investments in the capital market are not prohibited as long as they are carried out following Islamic principles and do not conflict with the provisions outlined by Islam. One form of investment in the capital market is the purchase of stocks.

There are many types of stocks traded and classified according to certain criteria, and one of them is Islamic stocks. In Indonesia, the first Islamic stocks were launched on July 3, 2000 (Soemitro, 2014). Islamic stocks that were first published in the Indonesian capital market are company stocks listed in Jakarta Islamic Index (JII) (Huda and Haykal, 2015). The stocks listed under the JII are those from companies that do not involve themselves in activities related to gambling, speculation, and traditional banking and financing. The JII excludes list stocks that produce or distribute food, drink, or morally harmful items that stand in contradiction with Islamic values. In investing in stocks, unlike conventional investors that expect to gain the highest rate of returns, Muslim investors do not only expect to gain maximum returns, but their investments are also in harmony with the Islamic principles such as free from interest (*riba*), uncertainty (*gharar*), gambling (*maysir*), and other exploitative activities. However, in reality, it is not easy to accumulate returns as expected since the returns of stock have been volatile from one period to another.

Table 1 illustrates the changes in returns of selected Islamic stocks listed in the JJII over the 2013 to 2017 period.

Table 1. The Returns of Selected Islamic Stocks Listed in the JII, 2013-2017

Stock	Year				
	2013	**2014**	**2015**	**2016**	**2017**
AKR Corporindo Tbk	0.05	-0.06	0.74	-0.16	0.06
Indofood CBP Sukses Makmur Tbk	0.13	0.02	-0.23	0.53	-0.04
Telekomunikasi Indonesia Tbk	0.76	0.33	0.08	0.28	0.12
Unilever Indonesia Tbk	0.25	0.24	0.15	0.05	0.44

Source: JII, 2019 (Data processed).

As illustrated in Table 1, stock returns of the companies listed in the JII have fluctuated over the period 2013-2017. Of these companies, the stock of Telekomunikasi Indonesia Tbk was recorded to be the most volatile returns in 2013 by 76%, but in 2014 and 2015 it continued to decline to 33% and 8%,

respectively. Even though it increased to 28% in 2016, but it again decreased to 12% in 2017. The lowest returns were recorded by Indofood CBP Sukses Makmur Tbk in 2015 by -23%. On the average, the rate of returns of AKR Corporindo Tbk, Indofood CBP Sukses Makmur Tbk, Telekomunikasi Indonesia Tbk, and Unilever Tbk was 18.7% over 2013-2017.

Predicting changes and the determinants of stock returns have been a major concern not only for investors but also for researchers. Many factors have been identified in determining stock returns. These factors include profitability (Fitriana et al., 2016; Mariani et al., 2016; Anwaar, 2016; Nandani and Sudjarni, 2017; Aroujo and Machado, 2018; and Safitri, Nadirsyah, and Darwanis, 2016), liquidity (Mayfi and Rudianto, 2014; Raningsih and Putra, 2015; Parwati and Sudiartha, 2016; Anwaar, 2016; and Nandani and Sudjarni, 2017), solvency (Widayanti and Haryanto, 2013; Erari, 2014; Rufaida and Hermanto, 2015; and Bisara and Amanah, 2015), company size (Sugiarto, 2011; Yuliantri and Sujana, 2014; Rosiana et al., 2014; and Raningsih and Putra, 2015), and many other characteristics of firms (Basri et al., 2019; and Kasmon et al., 2016).

Many previous studies on the determinants of the stock market have found mixed findings. For example, the studies by Fitriana et al. (2016), Mariani et al. (2016), Anwaar (2016), Nandani and Sudjarni (2017), and Aroujo and Machado (2018) found that profitability affected positively stock returns. However, this contradicts the results of studies by Nidianti (2013), Rosiana et al. (2014), and Gunawan and Hardyani (2016) who found an insignificant effect of profitability on stock returns. In their studies, Mayfi and Rudianto (2014), Raningsih and Putra (2015), Parwati and Sudiartha (2016), Anwaar (2016), and Nandani and Sudjarni (2017) found a significant effect of liquidity on stock returns, while Haanurat (2013), Gunawan and Hardyani (2016), Anggrahini and Priyadi (2016), and Fitriana et al. (2016) documented insignificant effect of liquidity on stock returns.

Furthermore, Widayanti and Haryanto (2013), Putra and Dana (2016), and Fitriana et al. (2016) found a significant influence of solvency on stock returns. This empirical evidence contradicts the finding of the insignificant effect of solvency on stock returns (Erari, 2014; Rufaida and Hermanto, 2015; Bisara and Amanah, 2015; and Hawu and Amanah, 2016). Additionally, some previous studies documented positive significant effect of the size of the company on stock returns (Sugiarto, 2011; Yuliantri and Sujana, 2014; and

Putra and Dana, 2016), while some other studies found insignificant effect of company size on stock returns (Rosiana et al., 2014; and Raningsih and Putra, 2015).

These mixed empirical evidences, some found positive, negative, and insignificant effects of factors affecting stock returns, have motivated the present study to re-examine the effects of profitability, liquidity, solvency, and company size on the Indonesian Islamic stock returns. Most of the previous studies focused their analyses only on the overall Islamic stock market using aggregate data, while none of them has explored all 30 Islamic stocks using panel multiple regression analysis using the latest data. Additionally, considering the vast growth of Islamic stocks worldwide, and particularly in Indonesia, previous studies on Islamic stocks in Indonesia focusing on these variables has been still relatively scarce. Therefore, it is necessary to fill up these existing gaps by re-examining the effect of firms' characteristics on Islamic stocks in Indonesia. Thus, this study specifically aims to empirically examine and analyze the effects of profitability, liquidity, solvency, and company size on 30 Islamic stocks listed in the Jakarta Islamic Index in Indonesia over the period 2013-2017 using the panel Generalized Least Square method.

The findings of this study are expected to shed some light for investors and investment managers to properly select portfolio stocks to gain maximum benefits for investment diversification. The findings of the study are also important for companies offered Islamic stocks to manage their activities in producing maximum returns by properly managing their characteristics and, in turn, attract more investors.

The remainder of this study is organized as follows: Section 2 reviews selected relevant theories and works of literature on the determinants of stock returns. Section 3, in turn, highlights data and research methods, followed by the presentation of empirical evidences and their discussions in Section 4. Finally, Section 5 provides conclusions and suggestions for further researches.

LITERATURE REVIEW

A signaling theory that has gained momentum in the last decade is useful for describing the behavior of the two parties when they have access to diverse information. Typically, one company would select whether and how to communicate (or signal) that information and the investor must choose how to

interpret the signal (Connelly et al., 2011). In other words, companies would provide signals to the market so that the market is expected to be able to distinguish between good and bad information (Suhadak et al., 2018).

Signaling theory discusses what kind of signals companies (managers) must provide to users of financial statements (i.e., investors) (Suhadak et al., 2018). This signal theory helps reduce asymmetric information. Accurate information is very important for investors using for decision making (Taj, 2016). The annual report provided by the manager is a signal for investors to be used as a reference in making investment decisions. Therefore, the company, in this case, the manager (signal provider) who is more aware of internal information and the prospects of the company must produce more quality and accurate financial reports to investors (signal recipients) to reduce asymmetric information. Thus, referring to the signals provided by companies could be used by the investors to predict stock returns. An ability to accurately predict the stock returns would provide investors maximum benefits of investment diversifications.

Stock Returns

The main purpose of investors allocate their monies into the stock market is to gain maximum returns. Return is the profit gained from an investment in a certain period. Return is the profit gained by companies, individuals, and institutions as the results of their investments (Fahmi, 2011). The distribution of returns in investments in Islamic stocks is based on the proportions specified in the mutually agreed contract. According to Huda and Nasution (2008), returns that can be gained from investing in Islamic stock include: (i) dividends; (ii) right to pre-order securities granted by the issuer; and (iii) capital gains which are the profits derived from the sale and purchase of Islamic stocks.

Profitability

Profitability in a company shows a picture of the company's performance. A good company is a company that can maintain its performance (Syamni et al., 2018). According to Jumingan (2006), profitability is a ratio that measures the efficiency of a company's activities and its ability to produce profits. In addition to describing the company's ability to generate profits, profitability also shows a measure of the effectiveness of a company's management in generating profits from sales and investment income (Kasmir, 2008). Thus, the better the profitability of the company, the better the company is in generating profits.

Liquidity

Liquidity indicates the ability of a company to pay its short-term debt, which is generally less than one year. It is the company's ability to pay off short-term obligations (Katchova and Enlow, 2013). Liquidity is also used to analyze and interpret short-term finance, for liquidity management, it is very helpful to measure the efficiency of working capital used in the company. For liquidity investors, it is also very important to know the prospect of expected dividend payments they would receive. The high level of liquidity shows the higher ability of a company to pay off debt and other short-term bills.

Solvency

Solvency is a ratio that illustrates a company's ability to manage and pay off its long-term debt. Solvency is also used to measure the extent to which a company's assets are financed with debt, meaning how much the company bears the burden of debt compared to its assets (Kasmir, 2008). If a company has very high debt, the burden of debt is also large so that the company's ability to repay its obligations if associated with assets or company capital becomes difficult (Gumanti, 2011). Investors as funders would certainly pay attention to the level of debt adequacy of a company so that investors believe the funds invested can be returned by the company.

Company Size

The size of the company is a reflection of the size of a company's activities that is related to opportunities and ability to enter the capital market and other types of external financing that show the ability to borrow from external sources (Yuliantri and Sujana, 2014). Company reputation often increases in line with company size and success in acquiring other companies (Baker et al., 2013; Mailinda, Ibrahim, and Zainul, 2018). Large companies will attract investors to invest as they own a large number of assets so that this is a guarantee of return on the funds that have been invested.

Effect of Profitability on Stock Returns

In investing their monies into stock markets, all investors expect to gain a high return; thus they should take into consideration factors affecting stock returns.

Previous studies also documented that that profitability has positively affected stock returns (Fitriana et al., 2016; Mariani et al., 2016; Anwaar, 2016; Nandani and Sudjarni, 2017; and Aroujo and Machado, 2018). These findings showed that the high profitability of a company will attract investors' to invest in the company's stock. Thus, it leads to an increase in stock price and it, in turn, has an impact on increasing stock returns. Thus, it can be concluded that the higher the profitability of a company, the rate of return received by investors is also high. Based on this explanation, thus the study proposed the first hypothesis to be tested in the study, as follows:

H1: Profitability affects Islamic stock returns.

Effect of Liquidity on Stock Returns

Companies that are disciplined and able to pay their short-term obligations on the schedule are said to be liquid. Liquidity is the company's ability to pay short-term debt with available assets. (Budialim, 2013) argues that investors can gain a higher rate of return on invested stocks if the company can meet its higher short-term obligations. This will provide confidence for investors to buy stocks, increase the company's stock price, and consequently its returns. This is in line with the previous studies that provide evidence of the significant relationship between liquidity and stock returns (Mayfi and Rudianto, 2014; Raningsih and Putra, 2015; Parwati and Sudiartha, 2016; Anwaar, 2016; and Nandani and Sudjarni, 2017). Thus, it can be concluded that liquidity affects the return of Islamic stocks. Based on this explanation, the second hypothesis is proposed to be tested in the study, as follows:

H$_2$: Liquidity affects Islamic stock returns.

Effect of Solvency on Stock Return

Solvency illustrates how much the company's assets are financed by debt (Kasmir, 2008). Bisara and Amanah (2015) also stated that solvency is the company's ability to meet its long-term obligations when the company is liquidated. When a company is liquidated or suffers losses, a company with a high debt burden will not be able to pay off its debt or dividends. This makes investors reluctant to invest their monies in the company so that the stock price decreases and it consequently causes reduces stock returns. Referring to this, thus the third hypothesis to be tested in the study is proposed, as follows:

H3: Solvency affects Islamic stock returns.

Effect of Company Size on Stock Return

Company size is a picture of the size of a company's activities. The size of the company determines the company by taking risks. Companies with larger sizes have lower risks because they have better control over their activities (Prasetyorini, 2013). Companies with large sizes also have broad expansion so that it is known in the community. For investors, this gives a positive signal because investors will more easily obtain valid information about the company's performance. Therefore, investors will be more interested in buying the stock of large companies. Thus, this causes the company's stock price to increase as well as its stock returns. Thus, it can be said that the size of the company affects the return of Islamic stocks. On this basis, thus the last hypothesis to be examined in the study is proposed, as follows:

H4: Firm size influences Islamic stock returns.

RESEARCH METHOD

Data

The population of this study is all 30 companies' stocks that are listed on the Jakarta Islamic Index (JII), the Indonesian Stock Exchange. The purposive sampling technique is used to select the Islamic stocks based on the certain set criteria (Sugiyono, 2010) to be explored and analyzed their stock returns' determinants, including profitability, liquidity, solvency, and company size. The sample selection in this study is based on the criteria, i.e., that companies are listed on the JII, the Indonesian Stock Exchange and their needed data for analyses are available during the 2013-2017 period. Based on these criteria, 85 observations were identified for further analyses. The secondary data used in this study are gathered from the company's financial statements listed in the JII, the Indonesian Stock Exchange over the 2013-2017 period.

Measurement of the Variables

As stated earlier, this study intends to explore and analyze the effects of four independent variables (i.e., profitability, liquidity, solvency, and company size) on one dependent variable (i.e., Islamic stock returns) in Indonesia. The measurements of the variables are illustrated in Table 2.

Table 2. Measurements of Variables

Variable	Measurement	References
Islamic Stock returns (ISR)	$Rt = \frac{P_t - P_{t-1}}{P_{t-1}}$ where R_t is the stock returns, P_t is the current stock price, and P_{t-1} is the last year stock price.	(Fakhruddin dan Sopian, 2001; and Majid and Benazir, 2015).
Profitability (PRO)	$ROE = \frac{Net\ Profit}{Equity}$ where ROE is the Return on Equity	(Brigham and Houston, 2015)
Liquidity (LIQ)	$CR = \frac{Current\ Assets}{Current\ Liability}$ where CR is the Current Ratio	(Brigham and Houston, 2015)
Solvency (SOL)	$DER = \frac{Total\ Liability}{Total\ Equity}$ where DER is the Debt to Equity Ratio	(Brigham and Houston, 2015)
Firm Size (FSZ)	Natural logarithm on total asset	(Belz et al., 2018).

Empirical Model

To measure and analyze the effects of profitability, liquidity, solvency, and firm size on the returns of 30 Islamic stocks listed in JII, the Indonesian stock exchange over the period 2013-2017, panel Generalized Least Square analysis was adopted and estimated using the E-Views statistical software. The panel data regression analysis is adopted because the data utilized in this study is a combination of time series data for five years (2013-2017) and a cross-section of 30 different companies.

Before the data is estimated, it is necessary to test the classical assumption, comprising the tests of normality, multicollinearity, autocorrelation, and heteroscedasticity. After ensuring all variables fulfilled the classical assumptions, the hypotheses testing would be conducted following the studies by Majid and Maulana (2012) and Amalia et al. (2014), as below:

$$ISR_{it} = a + b_1 PRO_{1it} + b_2 LIQ_{2it} + b_3 SOL_{3it} + b_4 FSZ_{4it} + u_{it} \qquad (1)$$

where ISS is the Islamic stock returns, PRO is the profitability, LIQ is the Liquidity, SOL is the solvency, FSZ is the firm size, b_i is the estimated variables, a is a constant term, and u_{it} is an error term.

To estimate panel regression, there are two common models often used, namely: the fixed effect model and the random effect model (Ajija et al., 2011). To determine which of the two models is more appropriate to use in the study, it will be statistically tested by the Hausman test. This test follows the statistical distribution of Chi-square with the degree of freedom is equal to the number of independent variables. If the Hausman statistic value is greater than the critical value of Chi-square statistics, this indicates that the fixed effect model is a more appropriate model to be adopted. On the other hand, if the Hausman statistic value is smaller than the critical value of Chi-square statistics, then the random effect model is a more appropriate model to be used.

The fixed-effect model uses dummy variables to capture intercept differences as the following equation:

$$ISR_{it} = a_l + b_1 PRO_{1it} + b_2 LIQ_{2it} + b_3 SOL_{3it} + b_4 FSZ_{4it} + u_{it} \qquad (2)$$

Meanwhile, the random effect model assumes the coefficient of intercepts differ between individuals and between time (random effect). The random effect model is estimated as the following equation:

$$ISR_{it} = a + b_1 PRO_{1it} + b_2 LIQ_{2it} + b_3 SOL_{3it} + b_4 FSZ_{4it} + e_{it} + u_{it} \qquad (3)$$

As stated earlier, before estimating the panel regression, the classical assumption tests of normality, multicollinearity, autocorrelation, and heteroscedasticity are conducted first. The normality test is conducted by referring to the asymptotic probability. If its probability value is greater than 0.5, then the data is said to be normally distributed. A multicollinearity test is conducted by using the Variance Inflation Factor (VIF). If the VIF value is below 10, then the data is said to be free from multicollinearity problems. As for the autocorrelation test, the Durbin Watson (DW) test is used, if the DW statistical value is around 2, then the data is said to be free from the autocorrelation problem. Finally, the heteroscedasticity test is performed by referring to the Bruesch-Pagan (BP) test. If the value of the BP Chi-square is greater than its p-value, then the data concluded to be free from the heteroscedastic problem.

FINDINGS RESULT AND DISCUSSION

Descriptive Statistics

In Indonesia, a stock is categorized as Islamic is determined by the National Shariah Boards of the Indonesian Ulema Council (*Dewan Syariah Nasional Majelis Ulama Indonesia* – DSN MUI) in every six-month. The Islamic stock is evaluated based on their shariah compliance. Jakarta Islamic Index (JII) is one of the Islamic stock indexes in the Indonesia Stock Exchange. The JII was first launched on July 3, 2000 (Soemitro, 2014). PT. Jakarta Stock Exchange together with PT. Dana Reksa Investment Management launched the JII, comprising 30 companies. These companies are considered their operational activities have been in harmony with the Islamic principles (Huda and Haykal, 2015; Majid, 2016; and Majid, 2018). The selection of Islamic stock categories is determined based on certain criteria. These criteria include the company's core activities that are free from interest (*riba*), uncertainty (*gharar*), and gambling (*maysir*) and financial performance that is below the threshold values. The presence of Islamic stocks provides an avenue for Muslim investors to invest their monies following the principles of Islamic transactions (*muamalah*).

Table 3 illustrates the descriptive statistics of investigated variables. The descriptive statistics describe trends of the variables, covering their minimum, maximum, and mean values as well as the dispersion of variables (standard deviation).

As illustrated in Table 3, the minimum value for stock returns was -50%, which is recorded by the Adaro Energi Tbk in 2015, while the maximum value was 46%, which recorded by Kalbe Farma Tbk in 2014. The average value of Islamic stock returns was 6.3% and its standard deviation was 21.6%. This showed that the returns across the 30 Islamic stocks in JII have differed from one stock to another.

Table 3. Descriptive Statistics of the Variables

Variable	Minimum	Maximum	Mean	Standard Deviation
Islamic Stock Returns	-0.500	0.460	0.063	0.216
Profitability	0.030	1.360	0.213	0.277
Liquidity	1.010	4.510	1.930	0.676
Solvency	0.002	0.096	0.010	0.011

Firm Size	15.891	19.504	17.585	0.905

Furthermore, the minimum value for profitability was 0.030, recorded by Lippo Karawaci Tbk in 2017, while the maximum value was 1.360, documented by the Unilever Indonesia Tbk in 2016. The average value of probability was 0.213 and a standard deviation was 0.277. The minimum value for liquidity was 1.010, recorded by PT. Gas Negara Persero Tbk in 2013, whilst the maximum value was 4.510, documented by Kalbe Farma Tbk in 2017. The average value of liquidity was 1.930 and its standard deviation was 0.676.

With regards to the solvency, the minimum value was 0.002, which is recorded by Kalbe Farma Tbk in 2017, while the maximum value was 0.096, documented by AKR Corporindo Tbk in 2016. The average value of this variable was 0.010 and its standard deviation was 0.011. Finally, the minimum value for a company size was 15.891, recorded by PT. PP London Sumatra Indonesia Tbk in 2013, whilst the maximum value was 19.504, documented by PT. Astra International Tbk in 2017. The average value of firm size was 17.585 and its standard deviation was 0.905.
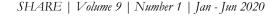
Effects of Profitability, Liquidity, Solvency, and Firm Size on the Islamic Stock Returns in Indonesia

Based on the Hausman test, the study found that the fixed effect model was the most appropriate model of Generalized Least Square as compared to the random effect model to estimate the effects of profitability, liquidity, solvency, and firm size on the Islamic stock returns in Indonesia during the 2013-2017 period. This is illustrated in Table 4, where the p-value of the Hausman test was below the probability value of 0.05. Table 4 also provides the estimated coefficients of regression based on the Panel Generalized Least Square analysis. It also reports the findings of classical assumption tests.

Table 4. Effects of Profitability, Liquidity, Solvency, and Firm Size on Islamic Stock Returns Based on the Fixed Effect Model

Variable	Coefficient	t-Statistics
Constant	0.550	0.273
Profitability	0.634[*]	3.615
Liquidity	0.106	1.517
Solvency	-1.986	-0.876
Firm Size	-0.058	-0.523

Hausman test (p-value) = 0.007; F-statistic (p-value) = 0.001; Adj. R^2 = 0.335; KS-test (p-value) = 0.892; VIF = 1.291 - 1.085; DW = 2.117; and BP (p-value) = 0.060.

Note: * shows significance at the 1% level, the Hausman test is performed to select a proper model between fixed and random effect models, Adj. R^2 is the Adjusted R-squared, KS is the Kolmogorov-Smirnov test for normality, VIF is the variance inflation factor criteria for multicollinearity, DW is the Durbin-Watson test for autocorrelation, and BP is the Bruesch-Pagan test for heteroscedasticity.

As reported in Table 4, of the four investigated determinants of Islamic stock returns, only profitability is documented to have a positive significant effect on the returns of Islamic stocks at the 1% level of significance, while liquidity, solvency, and firm size has an insignificant effect. Specifically, the study found that an increase in profitability by 1% has caused the value of stock returns will also increase by 16.34%. Thus, to gain a higher profit, investors in the Indonesian Islamic stock market should select firms with higher profitability. This empirical evidence support the findings of earlier studies by Gunawan and Hardyani (2016), Amalia et al. (2014), Antara et al. (2014), Raningsih and Putra (2015), Gunadi and Kesuma (2015), Midesia et al. (2016), and Nandani and Sudjarni (2017), which documented that profitability has a positive significant effect on stock returns.

On the other hand, liquidity, solvency, and firm size were found to have insignificant influences on Islamic stock returns. This conclusion is made due to the insignificance probability values of these estimated independent variables. Thus, these findings imply that liquidity, solvency, firm size played insignificant roles in determining and predicting the Islamic stock returns. In other words, to gain maximum benefits of investment diversifications in the Islamic stock market, investors should not rely on these insignificant determinants.

The insignificant effect of liquidity on the Islamic stock returns is in line with the empirical evidences documented in the studies by Haanurat (2013), Gunawan and Hardyani (2016), Anggrahini and Priyadi (2016), and Fitriana et al. (2016). However, our finding contradicts the results of studies by Mayfi and Rudianto (2014), Raningsih and Putra (2015), Parwati and Sudiartha (2016), Anwaar (2016), and Nandani and Sudjarni (2017) that found a significant effect of liquidity on stock returns.

Furthermore, the study also found an insignificant effect of solvency on Islamic stock returns. Firms whose capital is sourced from debts or huge loans are certainly riskier than companies with their own capital because the interest expense is also large. However, companies listed in the JII are companies that

have certain restrictions on the use of external loans. The interest-based debt allowed in Islamic stocks is less than 45%, thus with this limit, the company's debt would be more controlled and insensitive when there was an increase in interest rates. This makes investors have confidence in the JII companies in managing their debts so that investors did not pay attention to the solvency of the firms when deciding on Islamic stocks. This explains the insignificant effect of the firms' solvency on the returns expected by investors into the Islamic stocks.

The finding of an insignificant effect of solvency on the Islamic stock returns is in line with previous studies by Erari (2014), Rufaida and Hermanto (2015), Bisara and Amanah (2015), and Hawu and Amanah (2016). However, the result of our study contradicts the empirical evidences documented by (Widayanti & Haryanto, 2013), (Putra & Dana, 2016), and (Fitriana et al., 2016) that recorded a significant effect of firms' solvency on stock returns.

Finally, the study also found an insignificant effect of firm size on Islamic stock returns. This implies that the size of the company did not necessarily reflect the company's good performance. This could be partially due to the total fixed assets of the firms were greater than their current assets and other possibilities were also related to the company's decision regarding the profits of investors, large companies provided smaller dividend payments, thus investors did not select the firms with the larger size to buy their Islamic stocks. In other words, investing in larger firms' stocks did not provide a guarantee for investors to gain higher returns. This finding is in harmony with the empirical evidences of previous studies by Rosiana et al. (2014) and Raningsih and Putra (2015) that showed that company size had no significant effect on stock returns. However, our finding contradicts the results of previous studies by Sugiarto (2011), Yuliantri and Sujana (2014), and Putra and Dana (2016) which documented the significant influence of firm size on stock returns.

As observed from Table 4, the study found that the overall determinants of profitability, liquidity, solvency, and firm size significantly affected Islamic stock returns, as indicated by the significance of F-statistics at the 1% level. This explains that variations in Islamic stock returns were explained by 33.5% of changes in variables of profitability, liquidity, solvency, and company size, while the rest 66.5% changes in Islamic stock returns were explained by other determinants, both firm's characteristics and macroeconomic variables. This further implies that in predicting the changes in Islamic stock returns, these

variables should be taken into consideration. Additionally, this shows that the estimated Generalized Least Square model in our study is free from misspecification and a good fit to predict Islamic stock returns using profitability, liquidity, solvency, and company size as their independent variables.

Additionally, our estimated Generalized Least Square model also fulfilled the classical assumption requirements. As shown in Table 4, the Kolmogorov-Smirnov (KS) was found to be insignificant with the p-value of 0.892, signifying the normality of the variable, the Variance Inflation Factor (VIF) with the values of less than 10 (VIF = 1.291 - 1.085), showing the independent variables were free from problem of multicollinearity. The Durbin-Watson (DW) test for autocorrelation has a value of 2.117, showing the inexistence of autocorrelation problem, and the Bruesch-Pagan (BP) test for heteroscedasticity with the value of 0.060, signifying the variable were homoscedastic. These findings further confirmed that our estimated model was fit enough to measure the effects of profitability, liquidity, solvency, and firm size on the Islamic stock returns in Indonesia over the 2013-2017 period.

Our findings further showed that the companies' financial reports provide important information for the investors and other stakeholders about the performance of the firms, which is in line with the signaling theory, however, to utilize that information for selecting the proper stocks to maximize benefits of investment diversification, investors should accurately measure and interpret them, such as by exploring their financial ratios' interconnections as provided by our study using the Generalized Least Square regression model.

The results of this study are expected to provide additional empirical evidence and strengthen previous studies and offer an alternative reference for investors in making investment decisions in Islamic stocks, especially Muslim investors. The study only focused on companies listed on the JII. Therefore, the results of this study cannot be used generalized to other companies that have dissimilar characteristics.

CONCLUSIONS

This study empirically explored and analyzed the effects of profitability, liquidity, solvency, and firm size on the rate of returns of Islamic stocks in Indonesia. A total of 30 companies registered in the Jakarta Islamic Index have been selected as samples of the study using purposive sampling techniques

during the 2013-2017 period and estimated using the panel model of Generalized Least Square (GLS). The study found evidence of a positive and significant effect of profitability on the Islamic stock returns, while liquidity, solvency, and company size were documented to have an insignificant effect in affecting the Islamic stock returns. The results of this study imply that to gain a maximum rate of returns, investors should pay attention to the profitability gained by the companies listed on the Islamic stock market.

To provide higher returns for their investors, the JII companies should improve their performance, especially in generating corporate profits so that investors are interested in buying their stocks. With so much interest from investors buying JII stocks, the prestige of Islamic stocks has also increased. Companies listed in the JII become the attractive destination for investors since they provide higher returns, in addition to their shariah-compliant transaction activities based on the Islamic tenets. This study also provided evidences of the insignificant influence of liquidity, solvency, and company size on the Islamic stock returns. Therefore, based on this research, neither companies nor investors need to pay attention and consider these variables for their investment decisions.

The study only used variables of profitability, liquidity, solvency, and firm as the determinants of Islamic stock returns in Indonesia over the 2013-2017 period. To provide more comprehensive and robust empirical evidence on the determinants of Islamic stock returns, further studies on this topic could add more determinants of Islamic stocks in their analyses. These determinants do not only comprise firms' characteristics as suggested by the Signaling Theory, but they also include macroeconomic determinants as suggested by the Arbitraging Pricing Theory. A comparative analysis of determinants of Islamic and conventional stock returns would also provide a more insightful on this topic. Finally, a comparative analysis of the determinants of Islamic stocks across the global Islamic stock markets would also offer a comprehensive nature of relationships between Islamic stock returns and their determinants.

REFERENCES

Ajija, S. R., Sari, D. W., Setianto, R. H., & Primanti, M. R. (2011). *Cara Cerdas Menguasai Eviews.* Jakarta: Salemba Empat.

Amalia, R., Arfan, M., & Majid, M. S. A. (2014). Pengaruh laba, pengungkapan corporate social responsibility, dan profitabilitas terhadap abnormal return saham (Studi empiris pada perusahaan manufaktur di Bursa Efek

Indonesia). *Jurnal Akuntansi*, *9*(1), 124–132.

Anggrahini, D. P., & Priyadi, M. P. (2016). Pengaruh kinerja keuangan dan growth opportunity terhadap return saham. *Jurnal Ilmu & Riset Akuntansi*, *5*(3). 1-16. https://doi.org/10.1017/CBO9781107415324.004

Antara, S., Sepang, J., & Saerang, I. S. (2014). Analisis rasio likuiditas, aktivitas, dan profitabilitas terhadap return saham perusahaan wholesale yang terdaftar di bursa efek Indonesia. *Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, *2*(3), 902–911.

Anwaar, M. (2016). Impact of firms' performance on stock returns (Evidence from listed companies of FTSE-100 Index London, UK). *Global Journal of Management and Business Research: Accounting and Auditing*, *16*(1), 1-10.

Aroujo, R. C., & Machado, M. A. V. (2018). Book-to-market ratio, return on equity and Brazilian stock returns. *RAUSP Management Journal*, *53*(3), 324–344. https://doi.org/10.1108/RAUSP-04-2018-001

Baker, R. E., Lembke, V. C., & King, T. E. (2013). *Akuntansi Keuangan Lanjutan. (Translated by Sylvia Veronica)*. Jakarta: Salemba Empat.

Basri, H., Februari, C. P., & Majid, M. S. A. (2019). Does Indonesia sustainability reporting award (ISRA) cause abnormal return and stock trading volume: A comparative analysis. *Academic Journal of Economic Studies*, *5*(1), 74–79.

Belz, T., von Hagen, D., & Steffens, C. (2018). Taxes and firm size: political cost or political power? A meta-regression analysis. *SSRN Electronic Journal*, *January*, 1–43. https://doi.org/10.2139/ssrn.2697468

Bisara, C., & Amanah, L. (2015). Pengaruh kinerja keuangan terhadap return saham. *Jurnal Ilmu & Riset Akuntansi*, *4*(2), 1–14.

Brigham, E. F., & Houston, J. F. (2015). *Dasar-dasar Manajemen Keuangan. (Translated by Ali Akbar Yulianto)*. Jakarta: Salemba Empat.

Budialim, G. (2013). Pengaruh kinerja keuangan dan risiko terhadap return saham sektor consumer goods di BEI periode 2007-2011. *Jurnal Ilmiah Mahasiswa Universitas Surabaya*, *2*(1), 1–23.

Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of Management*, *37*(1), 39–67. https://doi.org/10.1177/0149206310388419

Erari, A. (2014). Analisis pengaruh current ratio, debt to equity ratio, dan return on asset terhadap return saham pada perusahaan pertambangan di bursa efek Indonesia. *Jurnal Manajemen Bisnis Universitas Muhammadiyah Yogyakarta*, *5*(2), 174–191.

Fitriana, D., Andini, R., & Oemar, A. (2016). Pengaruh likuiditas, solvabilitas,profitabilitas, aktivitas dan kebijakan dividen terhadap return

saham perusahaan pertambangan yang terdaftar pada BEI periode 2007-2013. *Journal of Accounting*, 2(2), 1-16.

Gumanti, T. A. (2011). *Manajemen Investasi Konsep, Teori dan Aplikasi*. Jakarta: Wacana Media.

Gunadi, G., & Kesuma, K. (2015). Pengaruh ROA, DER, EPS terhadap return saham perusahaan food and beverage BEI. *E-Jurnal Manajemen Universitas Udayana*, *4*(6), 1636–1647.

Gunawan, B., & Hardyani, R. P. (2016). Analisis pengaruh pengukuran kinerja keuangan dalam memprediksi return saham pada perusahaan manufaktur yang terdaftar di bursa efek Indonesia. *Jurnal Akuntansi*, *2*(1), 98-117. https://doi.org/10.24964/ja.v2i1.29

Haanurat, A. I. (2013). Pengaruh karakteristik perusahaan dan ekonomi makro terhadap return saham syariah yang listing di Jakarta Islamic Index. *Journal of Chemical Information and Modeling*, *53*(9), 1689–1699. https://doi.org/10.1017/CBO9781107415324.004

Hawu, S. A. A. H., & Amanah, L. (2016). Pengaruh variabel keuangan dan variabel industri terhadap return saham syariah. *Jurnal Ilmu & Riset Akuntansi*, *5*(2), 1–19.

Huda, N., & Haykal, M. (2015). *Lembaga keuangan Islam*. Jakarta: Prenadamedia Group.

Huda, N., & Nasution, M. E. (2008). *Investasi pada Pasar Modal Syariah*. Jakarta: Kencana.

Fahmi, I. (2011). *Manajemen Risiko Teori Kasus dan Solusi*. Jakarta: Alfabeta.

Jumingan. (2006). *Analisis Laporan Keuangan*. Jakarta: PT. Bumi Aksara.

Kasmir. (2008). *Analisis Laporan Keuangan*. Jakarta: PT. RajaGrafindo Persada.

Kasmon, D., Basri, H., & Majid, M. S. A. (2016). Pengaruh kepemilikan manajerial, kepemilikan institusional, arus kas bebas, dan leverage keuangan terhadap pembayaran dividen tunai pada saham-saham Blue Chip (LQ 45) pada Bursa Efek Indonesia tahun 2009-2013. *Jurnal Magister Akuntansi: Program Pascasarjana Unsyiah, 5*(1), 68–78.

Katchova, A. L., & Enlow, S. J. (2013). Financial performance of publicly-traded agribusinesses. *Agricultural Finance Review*, *73*(1), 58–73. https://doi.org/10.1108/00021461311321311

Mailinda, R., Ibrahim, A., & Zainul, Z. R. (2018). Pengaruh Leverage, Likuiditas dan Ukuran Perusahaan terhadap Profitabilitas pada BNI Syariah di Indonesia Periode 2015-2017. *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen, 3*(4). doi:https://doi.org/10.24815/jimen.v3i4.9794

Majid, M. S. A. (2016). Dynamic interactions between the Islamic stock prices and macroeconomic variables: Evidence from Malaysia. *DLSU Business*

& *Economic Review*, *26*(1), 92–100.

Majid, M. S. A. (2018). Assessing volatilities of monetary policy and their effects on the Islamic and conventional stock markets in Indonesia. *Signifikan: Jurnal Ilmu Ekonomi*, *7*(2), 161–172. https://doi.org/10.15408/sjie.v7i2.7352

Majid, M. S. A., & Benazir. (2015). An indirect impact of the price to book value to the stock returns: An empirical evidence from the property companies in Indonesia. *Jurnal Akuntansi Dan Keuangan*, *17*(2), 91–96. https://doi.org/10.9744/jak.17.2.91-96

Majid, M. S. A., & Maulana, H. (2012). A comparative analysis of the productivity of Islamic and conventional mutual funds in Indonesia: Data envelopment analysis (DEA) and general least square (GLS) approaches. *Gadjah Mada International Journal of Business*, *14*(2), 183–208. https://doi.org/10.22146/gamaijb.5439

Mariani, N. L. L., Yudiaatmaja, F., & Yulianthini, N. N. (2016). The utility of obtaining routine hematological laboratory values following an anterior cervical diskectomy and fusion. *E-Journal Bisma Universitas Pendidikan Ganesha Jurusan Manajemen*, *4*, 1–10. https://doi.org/10.1097/BRS.0000000000000512

Mayfi, F., & Rudianto, D. (2014). Analisis pengaruh faktor internal dan eksternal perusahaan terhadap return saham. *Jurnal MIX*, *4*(3), 348–362. https://doi.org/10.1038/132817a0

Midesia, S., Basri, H., & Majid, M. S. A. (2016). The effects of asset management and profitability on stock returns: A comparative study between conventional and Islamic stock markets in Indonesia. *Academic Journal of Economic Studies*, *2*(3), 44–54.

Nandani, I. G. A. I. Y., & Sudjarni, L. K. (2017). Pengaruh likuiditas, profitabilitas dan nilai pasar terhadap return saham perusahaan food and beverages di BEI. *E-Jurnal Manajemen Unud*, *6*(8), 4481–4509.

Nidianti, P. (2013). Pengaruh faktor internal dan eksternal perusahaan terhadap return saham food and beverages di bursa efek Indonesia. *E-Jurnal Akuntansi*, *5*(1), 130–146.

Parwati, R. R. A. D., & Sudiartha, G. M. (2016). Pengaruh profitabilitas, leverage, likuiditas dan penilaian pasar tehadap return saham perusahaan manufaktur. *E-Jurnal Manajemen Universitas Udayana*, *5*(1), 385–413.

Prasetyorini, B. F. (2013). Pengaruh ukuran perusahaan, leverage, dan profitabilitas terhadap nilai perusahaan. *Jurnal Ilmu Manajemen*, *1*(1), 183-196.

Putra, I. M. G. D., & Dana, I. M. (2016). Pengaruh profitabilitas, leverage, likuiditas dan ukuran perusahaan terhadap return saham perusahaan farmasi di BEI. *E-Jurnal Manajemen Universitas Udayana*, *5*(11), 6825–

6850.

Raningsih, N. K., & Putra, I. M. P. D. (2015). Pengaruh rasio-rasio keuangan dan ukuran perusahaan pada return saham. *E-Jurnal Akuntansi*, *13*(2), 582–598.

Rosiana, R., Retnowati, W., & Hendro, H. (2014). Pengaruh rasio profitabilitas, rasio aktivitas, rasio pasar, firm size, tingkat suku bunga, dan nilai tukar terhadap return saham (studi empiris pada perusahaan makanan dan minuman di bursa efek Indonesia periode 2008-2011). *Esensi: Jurnal Bisnis Dan Manajemen*, *4*(1), 79–91. https://doi.org/10.15408/ess.v4i1.1957

Rufaida, I., & Hermanto, S. B. (2015). Pengaruh profitabilitas, solvabilitas, dan rasio pasar terhadap return saham. *Jurnal Ilmu & Riset Akuntansi*, *4*(4), 1–20.

Soemitro, A. (2014). *Masa Depan Pasar Modal Syariah di Indonesia*. Jakarta: Kencana.

Sugiarto, A. (2011). Analisa pengaruh beta, size perusahaan, DER dan PBV ratio terhadap return saham. *Jurnal Dinamika Akuntansi*, *3*(1), 8–14. https://doi.org/10.15294/jda.v3i1.1939

Sugiyono. (2010). *Statistika untuk Penelitian*. Jakarta: Alfabeta.

Suhadak, Kurniaty, Handayani, S. R., & Rahayu, S. M. (2018). GCG, financial architecture on stock return, financial performance and corporate value. *International Journal of Productivity and Performance Management*, *69*(2), 1-19. https://doi.org/10.1108/ajar-07-2018-0021

Syamni, G., Wahyuddin, Damanhur, & Ichsan. (2018). CSR and profitability in agricultural subsectors. *Asia Pacific Journal of Innovation and Entrepreneurship*, *11*(1), 76-89

Taj, S. A. (2016). Application of signaling theory in management research: Addressing major gaps in theory. *European Management Journal*, *34*(4), 338–348. https://doi.org/10.1016/j.emj.2016.02.001

Safitri, I., Nadirsyah, & Darwanis. (2016). Pengaruh Kinerja Keuangan terhadap Pembiayaan Bank Umum Syariah di Indonesia (Periode 2009-2013). *Share: Jurnal Ekonomi dan Keuangan Islam, 5*(1). doi:http://dx.doi.org/10.22373/share.v5i2.1239

Yuliantri, N. N. A., & Sujana, I. K. (2014). Pengaruh financial ratio, firm size, dan cash flow operating terhadap return share perusahaan food and beverage. *E-Jurnal Akuntansi*, *8*(1), 59–69.

Widayanti, P., & Haryanto, A. M. (2013). Analisis pengaruh faktor fundamental dan volume perdagangan terhadap return saham (Studi kasus pada perusahaan real estate and property yang terdaftar di BEI periode 2007-2010). *Diponegoro Journal of Accounting*, *2*(3), 1–11.