Original Research Article

Analysis of Factors That Affect the Yield of Sharia Bonds (Sukuk) in Companies Listed on the Indonesia Stock Exchange

Ria Mareta Sari*, Nurlina T. Muhyiddin, Isnurhadi

Master degree in economy science Sriwijaya, Palembang, Indonesia

Abstract

This study aims to determine the effect of inflation, exchange rates, maturity period, bond ratings, company size, and return on assets which are independent variables on sukuk yields as the dependent variable. This study uses a sample of sharia-based corporate bonds listed on the Indonesia Stock Exchange (IDX) and rated by Pefindo during 2012-2016, while exchange rate and inflation data are data published by Indonesian banks. This study uses a purposive sampling method and the analysis technique used is the test of multiple regression analysis using the SPSS application. The results obtained are that the independent variable of inflation, exchange rate, maturity and sukuk rating does not affect the yield of sukuk. Whereas the independent size of the company (firm size) and return on assets have an effect on the dependent variable of the sukuk yield.

Keyword: Bond yield, inflation, exchange rate, term to maturity, bond rating, fime size, and return on assets.

INTRODUCTION

As a country with a majority population of Muslims, Indonesia has great potential as a center for the development of world Islamic finance including the Islamic capital market as a place to carry out investment activities. Investment is the placement of a number of funds at this time in the hope of gaining profits in the future [1]. Investment is divided into two types, namely investment in real assets and financial assets. Investment in real assets means investing in goods such as machinery, buildings and land. While investment in financial assets means investment in the sector, both those traded in money markets and capital market securities. There are three attributes inherent in investment, namely risk, yield and time. The sacrifice of economic resources in investments is carried out now with the aim of getting results, or increasing welfare in the future and uncertain (risky).

Investment is one of the muamalah activities that is taught in the Islamic concept because it makes property owned more productive and brings benefits to individuals and broader economic growth. Recommendations in Islam to carry out investment activities can be understood from the Al-Qur'an against the prohibition of hoarding activities owned, namely the assets owned must be rotated in the economy in the productive sector in order to produce benefits because the assets piled up will be subject to zakat if not played. This Islamic capital market has three types of products issued, namely Islamic mutual funds, Islamic stocks better known as the Jakarta Islamic Index (JII), and Islamic bonds (*sukuk*).

Sukuk or Islamic bonds are securities as investment instruments issued based on an underlying transaction or syari'ah cash, which can be *ijarah* (rent), *mudharabah* (profit-sharing), *musyarakah*, or others. The development of *sukuk* in Indonesia itself began to appear in 2002 with the issuance of PT. Indosat Tbk by using the mudharabah structure worth Rp.100 billion. This sukuk experienced double oversubscribed to become Rp.175 billion [2]. And continued conventional non-bank companies that participated in issuing these Islamic bonds, among others, PT. Matahari Putra Prima (since 2004), PT. Indofood (since 2004) and PT. PLN [3] until December 2016 the number of companies issuing bonds amounted to 18 companies and 53 issuances with total value of emissions reaching 11.87 Trillion Rupiah.

Every investor who invests funds will expect results or returns from his investment, without forgetting the investment risk factors that must be faced. Return is one of the factors that motivates investors to invest their funds and is also a reward for the courage of investors to bear the risk of investments made [4]. In term bonds to describe the return generated by bonds are bond yields. Yield to maturity (YTM) can be interpreted as the level of compound returns that

investors will receive if they buy bonds at the current market price and hold the bonds to maturity. YTM is a measure of yield that is widely used because the yield reflects the return of a compounded rate of return expected by investors, if the two assumptions required can be fulfilled, the expected yield to maturity will be the same as realized yield. The first assumption is that investors will retain the bonds until maturity. The value obtained if the first assumption is fulfilled is often called yield to maturity (YTM). The second assumption is that investor's reinvest the income earned from bonds at the YTM level produced [5]. Bond yield is a measure of bond income that investors will receive and tends to be non-permanent. In other words for certain yield changes, changes in price levels will be greater at lower yields than at high yields [6]. If the yield to maturity is higher than the yield to maturity deemed appropriate, bonds are said to be underpriced (undervalued) and are one candidate to buy. Conversely, if yield to maturity is lower than what is deemed appropriate, bonds are said to be overpriced (overvalued) and are candidates for sale [7]. Therefore issuers and investors must pay attention to bond market prices that always fluctuate because of selling activities buy from investors and are influenced by changes in the magnitude of macroeconomic variables such as inflation rates, interest rates, economic growth, exchange rates and others [8].

According to Paisarn [9], there are several factors that influence bond yields, namely external factors, bond characteristics and company internal factors. External factors that need to be considered are macroeconomic factors such as inflation and exchange rates. Inflation is an event that shows an increase in the price level in general and takes place continuously, while the exchange rate or foreign exchange rate can also be defined as the amount of domestic money needed, namely the amount of rupiah needed to obtain a unit of foreign currency. Another influential factor is the characteristics of bonds. One of the characteristics considered by investors is the age of bonds and bond ratings. Bond age (maturity) is the difference between the date of a bond issued (listing date) by the issuer up to the maturity date of the bond (term to maturity). Bond rating (bond rating) is one of the characteristics of bonds that must be considered by investors in buying bonds. This is because bond ratings show the quality of bonds reflected in the risk of bonds. Bond rating is also a default measure that has a direct and measurable effect on the company's capital costs and bond interest rates The Company's internal factors are also measured by company size and in terms of profitability. The focus of this ratio is on the final result or net income. There are three ratios in profitability, namely profit margin, return on assets, return on equity [10, 4]. Return on assets is a measure of profit generated for each company asset. ROA is also a comparison of net income compared to the total assets of the company.

Growing companies have hopes of developing and generating profits so that they can be used to pay bonds principal and interest smoothly because of the maturity of the bonds in the long term. With the development of this company the credibility will feel safe because the company produces profits that are used to pay the principal and interest on the bonds smoothly [3]. The size of the company is a scale which can be classified as small in size according to various ways, including total assets, log size, stock market value, etc. [11].

Previous research results on bond yields and factors that influence bond yields, but have not been consistent as the results of research conducted by Nurfauziah and Setyarini show that the inflation rate has a positive effect on bond yields. But the opposite is obtained from Lidya [12] and Sam'ani [13] which states that the results of the inflation variable research have a negative effect and are not significant for bond yields. Research conducted by Surya and Nasher [14] and Hutajulu [15] found that the rupiah exchange rate has a positive and significant effect on bond yields, while Sam'ani [16] which states that the results of the exchange rate variable have a negative and significant effect on bond yields . According to Lidya [12] states that bond ratings have a negative effect but are not significant for bond yields. Another study isnaini [17] states that bond ratings have a significant effect on bond yields. Research conducted by Khurana and Raman [18] shows that the size of the company has a negative effect on bond yields. However, the results of this study are not consistent with the results of research conducted by Setya Purnama [19] which found that total assets have a positive and significant effect on bond yields. Yuni's Research [17] states that high profitability ratios will provide a positive signal for investors so that bond yields tend to increase. The results of this study are different from the research of Rahayu *et al*. [20] shows the results that profitability has a significant negative effect on bond yields.

Based on the description that has been explained, the framework of thinking in this study can be described as follows;
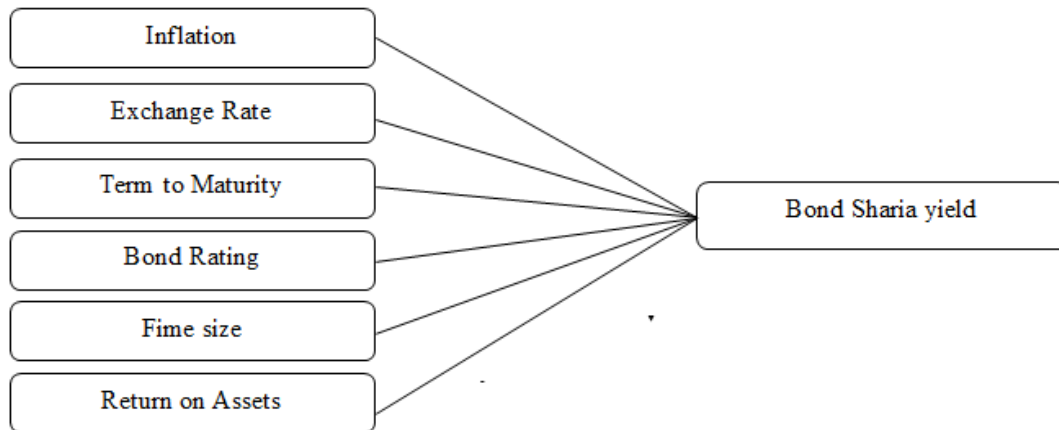
Fig-1: Framework of thought

From the above framework, the hypothesis is obtained
1. H_{01}: Inflation does not have a positive effect on Yield of Sharia Bonds (*Sukuk*).
   H_{a1}: Inflation has a positive effect on Yield of Sharia Bonds (*Sukuk*).
2. H_{02}: Exchange Rate does not have a positive effect on Yield of Sharia Bonds (*Sukuk*)
   H_{a2}: Exchange Rate has a positive effect on Yield of Sharia Bonds (*Sukuk*).
3. H_{03}: Term to Maturity does not have a positive effect on Yield of Sharia Bonds (*Sukuk*).
   H_{a3}: Term to Maturity has a positive effect on Yield of Sharia Bonds (*Sukuk*).
4. H_{04}: Bond Rating does not have a positive effect on Yield of Sharia Bonds (*Sukuk*)
   H_{a4}: Bond Rating has a positive effect on Yield of Sharia Bonds (*Sukuk*)
5. H_{05}: Fime Size does not have a positive effect on Yield of Sharia Bonds (*Sukuk*).
   H_{a5}: Fime Size has a positive effect on Yield of Sharia Bonds (*Sukuk*).
6. H_{06}: Return on Asset does not have a positive effect on Yield of Sharia Bonds (*Sukuk*).
   H_{a6}: Return on Asset has a positive effect on Yield of Sharia Bonds (*Sukuk*).

RESEARCH METHODOLOGY

The type of data used as this study is a secondary data type which is monthly data from January 2012 to December 2016. While the data source is obtained from the Indonesia Stock Exchange (IDX) Website, and the website of Bank Indonesia, IBPA, Pefindo, Bareksa, and Financial Reports Publication. The population in this study is all listed Islamic bonds traded on the Indonesia Stock Exchange (IDX) from 2012 to 2016 using purposive sampling method with certain criteria. The criteria for the sample are:

- Islamic bonds (*Sukuk)* that are listed and traded from the beginning of 2012 to 2016..
- Islamic bonds (*Sukuk*) are still outstanding or have not yet matured so that data on the applicable bond prices can be obtained.
- Sharia Bond Issuance Company (*Sukuk*) is registered in the rating of bonds issued by PEFINDO within the period of the Study consistently.
- Companies that issue Islamic bonds have complete financial statements during the study period.

The results obtained from the sample criteria are 18 companies with the number of *sukuk* issued by the company totaling 42 *sukuk*. The dependent variable used in this study is Sharia Bond Yield (*Sukuk*) by measuring the rate of return (yield) of bonds when bonds are first sold to the public, while the independent variable in this study is the first inflation and the data used in the study is level data inflation in Indonesia is expressed in percent. The second is the exchange rate (exchange rate) and the data used is the final value of the end of month selling rate for the period of 2012 to 2016. The third is the age of Shari'ah bonds and the data used is a dummy variable with code 0 if the bonds are above (5 years), code 1 if the bond is under (5 years). The fourth is the Syariah Bond Rating and the data used is the Syari'ah (*sukuk*) bond rating data issued by PT. PEFINDO. Measurements for this variable are done by giving a value of 2 for bonds that are high investment, 1 for bonds classified as middle investment, and 0 for bonds with low investment. The independent variable of this study is a dummy variable. The fifth is the size of the company and the data used is the value of natural logarithms (LN) of the total assets owned by the company. The sixth is return on assets (ROA) as a proxy for profitability, and the data used is the ratio obtained from the annual financial statements published by the *Sukuk* Publishing Company.

Data Analysis Method

Conducting Multiple Regression Tests Effect of Factors on Syari'ah Bonds (Sukuk) Yields on Companies Listed on the Indonesia Stock Exchange.

Classic Assumption Test

- **Descriptive Statistics**

This analysis is used to provide an overview and description of a data seen from the mean, maximum, minimum, and standard deviation values.

- **Normality Test**

Normality test aims to test whether in the regression model; the residual confounding variable has a normal distribution. It is known that the T and F tests assume that the residual value follows a normal distribution. If this assumption is violated, the statistical test becomes invalid for a small number of samples. There are two ways to detect whether residuals are normally distributed or not, namely by graph analysis and statistical tests [21]. In this study, the statistical test that will be used to test residual normality is the non-parametric statistical test Kolmogorov-Smirnov (K-S)

- **Autocorrelation Test**

The autocorrelation test aims to determine the correlation between members from a series of observations arranged in a series of times or a series of spaces. To find out whether there is an issue of autocorrelation in the statistical model used Durbin Watson. If there is no correlation between residuals, it is said that residuals are random or random [21].

To make a decision whether there is an auto correlation, there are considerations that must be followed, among others :
1. If the DW value is located between the upper limit (du) and (4-du), then the autocorrelation coefficient = 0, meaning there is no autocorrelation.
2. If the DW value is lower than the lower limit (dl), the autocorrelation coefficient is> 0, meaning there is positive autocorrelation.
3. If the DW value is greater than (4-dl) then the autocorrelation coefficient <0, means that there is negative autocorrelation.
4. If the DW value is between (du) and (dl) or DW is located between (4-du) and (4-dl), then the result cannot be concluded.

- **Multicollinearity Test**

Multicollinearity test aims to test whether the regression model found a correlation between independent variables [21]. A good regression model should not have a correlation between the independent variables. If the independent variables correlate with each other, then these variables are not orthogonal. Orthogonal variables are independent variables whose correlation value between independent variables is zero. This study tested multicollinearity based on tolerance value and Variance Inflation Factor (VIF). The regression model that is free of multicollinearity is if the VIF value is ≤ 10 and has a tolerance value of ≥ 0.10.

- **Heterocedasticity Test**

Heterocedasticity test aims to test whether in the regression model variance inequality occurs from one residual to another observation. If the residual variance from one observation to another observation remains, then it is called homoskedasticity and if it is different it is called heteroscedasticity [21]. This study tested multicollinearity using the Glejser test.

- **Test the Regression Coefficient Statistics**

$$Y = \beta_0 + \beta_1 (x_1) + \beta_2 (x_2) + \beta_3 (x_3) + \beta_4 (x_4) + \beta_5 (x_5)$$

Where:
Y = Islamic Bond Yield; β0 = Constants
β1 - β6 = Independent variable regression coefficient
X1 = Inflation
X2 = Rupiah Exchange Rate against US Dollar
X3 = Term of Bond; X4 = Company Size
X5 = Bond Rating; X6 = Return on Asset
e = Standard Error

Hypothesis Test
The steps of analysis, testing data and testing hypotheses are as follows:

Test F
The F statistical test is used to test whether all the independent variables included in the model have a joint influence on the dependent variable. The F-test results can be seen in the ANOVA table. If the sig value ≤ α = 0.05 then there is one or more independent variables that affect the dependent variable (the alternative hypothesis formulated is accepted).

T test
The statistical test of the t value is used to test how far the influence of one independent variable individually in explaining the variation of the dependent variable (Ghozali, 2006). The influence of each independent variable on the dependent variable can be seen from the magnitude of the p-value. If the p-value is smaller than the 5% significance level, then the independent variable has a significant effect on the dependent variable.

The coefficient of determination (R2)
The coefficient of determination is basically to measure how far the model's ability to explain the variation of the dependent variable. The fundamental weakness of using the coefficient of determination is the bias towards a number of independent variables included in the model. Every additional one independent variable, then R2 must increase regardless of whether the variable has a significant effect on the dependent variable [21].

RESULTS AND DISCUSSION
Results
This study aims to look at the effect of inflation, the exchange rate and the age of Islamic bonds, Islamic bond ratings, fime size, and profitability on the yield of Islamic bonds on the Indonesia Stock Exchange. Since the data used is in the form of a unit of Rupiah (exchange rate) and in the form of percent (inflation and ROA) so that the value of each variable is different, in addition to facilitating a more efficient estimation, and reducing the risk of multicollinearity, the model the study was transformed into the LOG model.

Test descriptive statistics

Table-1: Test of descriptive statistics.

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
inflasi	31	.48001	.92324	.6315971	.03469162	.19315475
kurs	31	3.98543	4.13972	4.1091822	.00700623	.03900904
umur	31	0	2	1.03	.109	.605
size	31	7.61332	13.29779	10.4638461	.27274340	1.51857100
rating	31	1	2	1.71	.083	.461
roa	31	-.30103	1.00000	.4714410	.06477285	.36063999
yield	31	.86629	1.16613	.9419040	.01091066	.05976014
Valid N (listwise)	31					

Source: Results of research data processing, 2016

Based on Table 1, the amount of data used during the 2012-2016 period is 31 data where the inflation variable (X1) has a maximum value of 0.923242 and a minimum value of 0.48001. Exchange rate variable (X2) has a maximum value of 4.13972 and a minimum value of 3.98543. Age variable Sukuk (X3) has a maximum value of 2 and a minimum of 0. Company size variable (X4) has a maximum value of 13.29779 and a minimum of. 7, 61332. The Sukuk Rating variable (X5) has a maximum value of 2 and minimum 1. Variable return on assets (ROA) (X6) has a maximum value of 1.00000 and a minimum of -0.30103. The variable yield of the Sukuk yield (Y) has a maximum value of 1.16613 and a minimum of 0.86629.

Classic Assumption Test
Normality Test (One - Sample Kolmogorov - Smirnov)

Table-2: Normality Test (One - Sample Kolmogorov - Smirnov)

		residual
N		31
Normal Parameters[a,b]	Mean	.9413
	Std. Deviation	.04266
Most Extreme Differences	Absolute	.133
	Positive	.133
	Negative	-.089
Kolmogorov-Smirnov Z		.738
Asymp. Sig. (2-tailed)		.647

Source: Results of research data processing, 2016

Based on Table 2, the Kolmogorov-Smirnov value is 0.647. This value is greater than the Kolmogorov-Smirnov table value of 0.05, so Ho is accepted which indicates that the data in this study are normally distributed.

Multicollinearity Test (Tolerance and Variance Inflation Factor)

Table-3: Multicollinearity Test (Tolerance and Variance Inflation Factor)

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	inflasi	.358	2.793
	kurs	.656	1.525
	umur	.933	1.072
	size	.452	2.215
	rating	.570	1.753
	roa	.595	1.681

Source: Results of research data processing, 2016

Based on Table 3, it shows that there are no independent variables that have a tolerance value of less than 0.10 and also there are no independent variables that have a VIF value of more than 10. This means that the data is free from the symptoms of multicollinity.

Autocorrelation Test (DW-test)

Table-4: Autocorrelation Test (DW-test)

Nilai DL	Nilai DU	Nilai Durbin Watson	Kesimpulan
1,0201	1,9198	1,767	TidakTerjadiAutokorelasi

Source: Results of research data processing, 2016

Based on Table 4, the value (dL) = 1.0201 and the value (dU) = 1.9198, and the value (4-dL) = 3.0504 and the value (4-dU) = 1.9817. The Durbin-Watson test is one of the most widely used tests to determine whether there is autocorrelation; this is to calculate the dw value. If the value of d is between 1,758 and 2,242 then there is no autocorrelation. And if the dw value is beyond that, then there will be autocorrelation [22, 23]. So that it can be concluded that the testing of autocorrelation in the regression equation in this study did not occur with autocorrelation.

Heteroscedicity Test (Glejser Test)
The Heteroscedicity Test is one of the classic assumptions as a requirement for conducting regression analysis. Heteroscedicity testing can be seen based on a scatterplot but is very weak because it only relies on visual analysis. The Glejser test proposes to regression the absolute residual (AbsUt) value as a dependent variable. If the independent variables do not affect AbsUt then there is no indication of heteroscedicity and vice versa. The results of the Glejser Test analysis can be seen in the table 5.

Table-5: Heteroscedasticity Test (Glejser Test)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	6	.000	.000	1.000[a]
	Residual	.049	23	.002		
	Total	.049	29			

Source: Results of research data processing, 2016

Based on table 5, it is shown that the glejser test results have a value of sig. 1,000 or greater than 0.05 so it can be concluded that there are no heteroscedasticity symptoms in this regression model.

Analysis of Multiple Linear Regressions

Table-6: Results of Calculation of Multiple Linear Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.826	1.106		1.651	.112
	inflasi	-.206	.074	-.674	-2.803	.010
	kurs	-.204	.270	-.134	-.754	.458
	umur	.010	.015	.094	.632	.534
	size	.024	.008	.610	2.848	.009
	rating	-.122	.024	-.949	-4.983	.000
	roa	.074	.030	.451	2.420	.024

Source: Results of research data processing, 2016

Based on the results of data analysis in Table 6, multiple linear regression equations can be made as follows:

$$Y = 1{,}826 - 0{,}206x_1 - 0{,}204x_2 + 0{,}010x_3 + 0{,}024x_4 - 0{,}122x_5 + 0{,}074x_6 + e\ldots$$

Explanation
Y = Islamic Bond Yield
β_0 = Constants
β_1 - β_6 = Independent variable regression coefficient
X1 = Inflation
X2 = Rupiah Exchange Rate against US Dollar
X3 = Term of Bond
X4 = Company Size
X5 = Bond Rating
X6 = Return on Asset
e   = Standard Error

Test F (ANOVA Test)

Table-7: Anova test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.054	6	.009	4.223	.005[a]
	Residual	.049	23	.002		
	Total	.104	29			

Source: Results of research data processing, 2016

Discussion of f test results
The results of the F test show the feasibility of the regression model that the model estimated is in accordance with the research data. Significance probability value Test F in Table 7 is 0.005 which is below the significance level α = 0.05. This means that the regression model is suitable in the study (good fit model) where the estimated model is in accordance with the research data. The taking of the independent variable is quite feasible because it is able to explain the variation of Y. After the model is declared feasible, then the t test is performed which shows the partial effect of the independent variable on the dependent variable.

T Test (Partial Test)

T test is done by comparing t count with t table or by looking at the column of significance on each t count with criteria if the significance value is <0.05 then the hypothesis is accepted which means that the independent variable has a significant effect on the dependent variable and vice versa if the significance value> 0.05 then the hypothesis is rejected which means that the independent variable does not significantly influence the dependent variable.

Table-8: Test

Model		t	Sig.	Keterangan
	inflasi	-2.803	.010	Signifikan
	kurs	-.754	.458	Tidak Signifikan
	umur	.632	.534	Tidak Signifikan
	size	2.848	.009	Signifikan
	rating	-4.983	.000	Signifikan
	roa	2.420	.024	Signifikan

Source: Results of research data processing, 2016

Based on Table 8, the results of the T test of the independent variables that are significant for the dependent variable are variables of inflation, Size, Rating, and ROA while the independent variables that are not significant to the dependent variable are the Sukuk Exchange Rate and Age variables.

Coefficient of Determination

Table-9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724[a]	.524	.400	.04628634

Source: Results of 2016 research data processing

Based on the coefficient of determination in table 9 this study amounted to 0.524. This means that 52.4% of bond yield variations are explained by the six independent variables namely inflation, exchange rate, bond age, company size, bond rating, and ROA, while the remaining 47.6% is explained by other variables outside the regression model.

Discussion

In this study all the independent variables predicted to influence *sukuk* yield. When viewed using SPSS, all the independent variables in this study have no significant effect on the dependent variable which is *sukuk* yield which can be seen in table 6 which shows that the constant value is 1.826 and the significance value in this study is more than 0.05 which is 0.1125. But partially, the independent variable Inflation has no effect with the value of -0.206, the Exchange Value variable (Exchange Rate) has a value of -0.204 and does not affect the dependent variable of sukuk yield, independent variable Time of Maturity *Sukuk* (Age *Sukuk*) affects the dependent variable yield with value 0.010, and partially, the independent variable size of the company also affects the dependent variable yield with a value of 0.024, and the independent variable sukuk rating does not affect the dependent variable yield with a value of -0.1220, and the independent variable ROA affects the dependent variable yield with a value of 0.074.

CONCLUSIONS

This study aims to analyze the factors that affect the Syari'ah Bonds (sukuk) yield as a dependent variable using the Multiple Linear Regression model. This study analyzes Inflation, Exchange Rate (Exchange Rate), Sukuk Maturity Time, Company Size (Size), Sukuk Rating, and ROA for the period 2012-2016 as independent variables. From the description in the previous chapters, the following conclusions can be drawn:

- Partially, the independent variable Inflation does not affect the dependent variable of sukuk yield, the Exchange Rate (Exchange) variable does not affect the dependent variable of the sukuk yield, the independent variable Sukuk (Age of Sukuk) also has no effect on the dependent variable yield, and Partially, the independent variable of the Sukuk Rating also does not affect the dependent variable yield.
- Partially, the independent variable Company Size (Size) and ROA affect the dependent variable yield.

REFERENCES

1. Labovitz, D. L., Halim, A., Boden-Albala, B., Hauser, W. A., & Sacco, R. L. (2005). The incidence of deep and lobar intracerebral hemorrhage in whites, blacks, and Hispanics. *Neurology*. *65*(4), 518-522.

2. Adrian Sutedi. (2011). *Aspek Hukum Obligasi & Sukuk*. Jakarta: Sinar Grafika.
3. Restuti, M. I. M. D., & Baridwan, Z. (2006). *Pengaruh pertumbuhan perusahaan terhadap peringkat dan yield obligasi* (Doctoral dissertation, Universitas Gadjah Mada).
4. Crane, R. (2017). *Mindfulness-based cognitive therapy: Distinctive features*. Routledge.
5. Tandelilin, E. (2010). Portofolio dan Investasi teori dan aplikasi. *Yogyakarta: Kanisius*, 8-9.
6. Kusuma, H., & Asrori, A. (2005). Pengaruh Durasi dan Konveksitas terhadap Sensitivitas Harga Obligasi. *Sinergi: Kajian Bisnis dan Manajemen*, 7(2).
7. Sharpe, J William. (2005). *Investasi.* Jilid 2
8. Hapsari, R. A. (2013). Kajian Yield To Maturity (YTM) Obligasi pada Perusahaan Korporasi. *Accounting Analysis Journal*, 2(1).
9. ANGGRAINI, M. (2013). *Pengaruh tingkat inflasi, tingkat suku bunga, peringkat obligasi dan debt to equity ratio terhadap yield to maturity (studi kasus pada obligasi perusahaan di bursa efek indonesia tahun 2008-2010)* (Doctoral dissertation, BINUS).
10. Swain, S. M., Baselga, J., Kim, S. B., Ro, J., Semiglazov, V., Campone, M., ... & Clark, E. (2015). Pertuzumab, trastuzumab, and docetaxel in HER2-positive metastatic breast cancer. *New England Journal of Medicine*. *372*(8), 724-734.
11. Brigham, E., & Daves, P. (2012). *Intermediate financial management*. Nelson Education.
12. Therasa, S., & Lidya, A. (2010). Dynamic adaptation of checkpoints and rescheduling in grid computing. *International Journal of Computer Applications*, 2(3).
13. Sam'ani. (2009). *Pengaruh Good Corporate Governance dan Leverage Terhadap Kinerja Keuangan pada Perusahaan yang Terdaftar di Bursa Efek Indonesia. Thesis* Magister pada Universitas Udayana Denpasar.
14. Surya, B.A., dan Nasher, T.G. (2011). *Analisis Pengaruh Tingkat Suku Bunga SBI, Exchange Rate, Ukuran Perusahaan, Debt To Equity Ratio dan Bond terhadap Yield Obligasi Korporasi di Indonesia*. Jurnal Manajemen Teknologi. 10 (2), pp: 186-195.
15. Ibrahim, H. (2008). *Pengaruh Tingkat Suku Bunga, Peringkat Obligasi, Ukuran Perusahaan Dan DER Terhadap Yield To Maturity Obligasi Korporasi Di Bursa Efek Indonesia Periode Tahun 2004-2006* (Doctoral dissertation, Program Pascasarjana Universitas Diponegoro).
16. Hartono, J. (2008). Teori portofolio dan analisis investasi. *Edisi Kelima. Yogyakarta: BPFE*.
17. Purnamawati, I. G. A. (2013). Pengaruh Peringkat Obligasi, Tingkat Suku Bunga-Sertifikat Bank Indonesia, Rasio Leverage, Ukuran Perusahaan Dan Umur Obligasi Pada Imbal Hasil Obligasi Korporasi Di Bursa Efek Indonesia. *Jurnal Jurusan Akuntansi (D3)/Vokasi Jurnal Riset Akuntansi*, *2*(1).
18. Khurana, I. K., & Raman, K. K. (2003). Are fundamentals priced in the bond market?. *Contemporary Accounting Research*, *20*(3), 465-494.
19. Setyapurnama, R. Y. S. (2005). *Pengaruh Corporate Governance dan kualitas audit terhadap peringkat dan Yield Obligasi* (Doctoral dissertation, Universitas Gadjah Mada).
20. Rahayu, S. Analisis Pengaruh Faktor Internal Emiten Terhadap Bagi Hasil Investor Pada Obligasi Syariah Mudharabah di Indonesia.
21. Ghojali, I. (2006). Analisis Multivariate Lanjutan Dengan Program SPSS.
22. Noor, H. F. (2009). Investasi: pengelolaan keuangan bisnis dan pengembangan ekonomi masyarakat. *Jakarta: PT Indeks*.
23. Pefindo. (2013). *Perfoma Perusahaan Tercatat*. http://www.pefindo.com/index.php/fileman/file/228, diaksespadatanggal 27 januari 2017.