

Evaluation of the Effect of Financial Ratios on Sukuk Rating: The Moderating Role of Debt Equity Ratio (DER)

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Abstract

Bond or sukuk ratings have an important meaning for companies and investors, because the bond / sukuk rating is an indicator of the risk of default. Sukuk as an alternative investment is increasingly in demand by investors in Indonesia. But unfortunately, some bonds and sukuk have defaulted in 2019. This study aims to determine the effect between current ratio (CR), total asset turn over (TATO) and return on assets (ROA) on sukuk ratings moderated by Debt Equity Ratio (DER). Sukuk rating is the dependent variable in this study measured by assessment techniques based on Pefindo ratings. This study uses secondary data which is a non-bank company from the Indonesia Stock Exchange and received a rating from Pefindo in 2013-2018. While the sampling method used is the purposive method, namely a total of 84 samples selected. This study uses data analysis methods using Multiple Regression Analysis with hypothesis testing F statistical test and t statistical test, Eviews 9 programme assistance. The conclusions that can be drawn from this study are as follows: (1) Current Asset (CR) has a significant positive effect on sukuk rating; (2) Total asset turn over has a significant negative effect on sukuk rating; and (3) Return on assets does not have a positive effect on sukuk ratings..

Introduction

The capital market is one of the important elements and becomes a benchmark used to assess the progress of a country's economy. One of the characteristics of developed industrial countries and developing industrial countries is the existence of a capital market that grows and develops well. The considerable role of the government plus the number of Indonesian Muslim population reaching 231 million people or 87.2% of 265 million people (Pew Research, 2018) is also a supporter of the development of the Islamic capital market in Indonesia.

The development of sharia capital market in Indonesia, one of which is marked by the increase in sukuk issuance in the market carried out by issuers. Of course, this has a positive impact on economic players in investing in the Islamic capital market, considering that sukuk investment is an investment that has low risk. One indicator in determining risiko in choosing a corporate sukuk is to look at the ranking of the sukuk.

The framework used by rating agencies is based on qualitative and quantitative factors. Quantitative (financial) factors related to financial risk can be seen from the company's financial ratios, such as profitability, leverage, solvency, liquidity and productivity. Qualitative (non-financial) factors include analysis of the company's business risks, such as industrial competition and the quality of company management. (Brigham, 2019)

Another factor that affects bond ratings is profit management. Profit management is a deviation in the preparation of financial statements, which affects the level of profit displayed in the financial statements (Herawaty, 2014). Profit management is done so that the financial statements look good, because if the financial statements look good, the bonds will also have a good rating, so that many investors will be interested in the bonds. The purpose of profit management is to rank bonds issued by rating agencies into the investment grade category.

Based on issuers, there are 2 types of sukuk, namely corporate Sukuk (issued by private companies / SOEs) and State Sukuk (issued by the Government) through the Ministry of Finance (Fasa, 2016). Based on a report released by the Financial Services Authority (OJK), the number of corporate sukuk circulating in the bond market is relatively low. The issuance of conventional bonds and sukuk in Indonesia until May 9, 2019 has reached 748 total securities, of which 120 are sukuk with an outstanding value of Rp 24.28 trillion and the remaining 83.96% or 628 are conventional bonds. This is influenced by the limited market share of these instruments. The outstanding value increased by 3.7% year to date. According to Fund Manager Capital Asset Management, Desmon Silitonga, despite the increase, the outstanding value of corporate sukuk remains relatively low and even only small when compared to the total outstanding corporate bonds. This is because not just any company can issue sukuk. Companies that conduct business without sharia principles such as cigarette manufacturers or general banking cannot issue such instruments. As a result, the market share of corporate sukuk is also relatively small. (kontan.co.id : 2018). In addition to the requirements that are considered complicated in issuing sukuk, namely issuers having underlying assets and Sharia Expert Teams (TAS), many issuers consider that sukuk is illiquid. So it needs the role of various parties, especially the government, to encourage more sukuk issuance in the secondary market.

The following is an overview of the development of corporate sukuk circulating until January 2019:

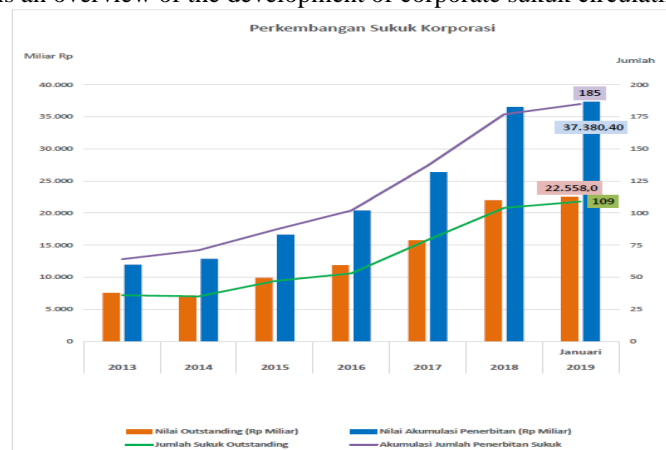


Figure 1 : Graph of Sukuk Development in Indonesia

PT Pemeringkat Efek Indonesia (Pefindo) downgraded PT Express Transindo Utama Tbk (TAXI)'s corporate and bond ratings from idA- to idBBB+ due to a decline in TAXI's market share in the transportation industry. According to Martin, the BBB+ rating for the company and Bond I Year 2014 is valid from August 30, 2016 to March 1, 2017. In addition, the decline was influenced by lower profitability than previously projected and a decrease in TAXI's market share. High debt levels and projected profitability that will not improve quickly have also affected TAXI's rating downgrade. Meanwhile, factors limiting TAXI's rating consist of aggressive corporate financial leverage, weak cash flow and liquidity, and intensifying industry competition (Kompas.com: 2016).

In recent years there have been many problems in sukuk ratings, The downgrade of financial sector corporate bonds this year has increased compared to last year. PT Pemeringkat Efek Indonesia (Pefindo) recorded downgrades of three financial sector bonds so far this year. Senior Vice President, Division Head Financial Institutional Ratings Pefindo Hendro Utomo detailed that the three are debt securities issued by PT Bank DKI, PT Buana Finance and Bank Muamalat. This number increased compared to 2015 which was two bonds. Many downgrades this year were triggered by the decline in asset quality of financial services industry companies compared to last year. This condition is coupled with the absence of improvement in asset quality (cash: 2016).

Based on previous research that factors affecting sukuk ratings Among them have been conducted by Purwaningsih (2014) which provides evidence that the ratio of leverage, secure liquidity, and maturity 10 can be used to predict sukuk ratings, as well as research by Afiani (2013) which found that liquidity and profitability ratios can be used to predict sukuk ratings and leverage and productivity ratios cannot be used to predict sukuk rank. Magreta and Poppy's (2009) research examines the factors that influence bond rating prediction, with the result that firm size, liquidity, profitability, leverage, productivity, secure, maturity and auditor reputation affect sukuk rating prediction.

According to Ratna Puji (2017) simultaneous testing of the current ratio, total asset turn over and return on asset affect sukuk ratings. According to Pranoto and Takidah (2017), auditor productivity and reputation partially have a significant negative influence on sukuk rating, while profitability and company size do not have a significant influence on sukuk rating.

According to February (2016), the leverage ratio (DER) of 5% is significant and the liquidity ratio (current ratio) has a significant effect on sukuk rating. And a significant 10%, the ratio of profitability (Return On Assets) and interest income (PB) has a significant effect on sukuk ratings.

Literature Reviews

2.1 Sukuk (Sharia Bonds)

Based on the Sharia Standard of The Accounting and Auditing Organization for Islamic Finantion Institution (AAOIFI) No.17 on Investment Sukuk, sukuk is defined as a certificate of equal value which is evidence of undivided ownership of an asset, beneficial rights, and services, or of ownership of a particular project or investment activity

Fatwa DSN defines sharia bonds as long-term securities based on sharia principles issued by issuers to sharia bondholders, by requiring issuers to pay income to sharia bondholders in the form of profit sharing / margin / fees and pay back bond funds at maturity. In Indonesia, the legal umbrella that is the basis for the issuance of sukuk bonds is Law Number 19 of 2008 concerning State Sharia Securities (Nurhayati & Wasilah, 2014).

Sukuk are distinguished according to their contracts, namely Sukuk mudharabah, Sukuk musharakah, Sukuk Istishna, Sukuk ijarah. The structure of sukuk based on tangible assets is the value of sukuk related to the value of the asset as the basis for issuance (underlying asset). Therefore, investment income is not based on the interest rate but in the form of rewards, margins, or profit sharing ratios according to the type of contract used. Where according to Nurhayati & Wasilah (2014), the characteristic of sukuk is the basic nature of Islamic sukuk is equal involvement in profits and losses. Furthermore, the basic assets of sukuk can be in the form of fixed assets, outstanding assets or meaningful rights whose circulation must be through the mediation of the legal system and the process shari'i. In addition to halal investment opportunities in accordance with sharia, the risk of sukuk is very small. This is because Sukuk gets guarantees from the government with an unlimited amount. The following is a comparison between sukuk and conventional bonds.

No Need

| Deskripsi | Sukuk | Journal of Islamic Economics & Social Science |
|---|--|--|
| Dasar Hukum | Undang - Undang | Undang - Undang |
| Article Info: | Bond | 1.Pemerintah 2. Korporasi |
| Metode Penerbitan | 1. Lelang 2. Bookbuilding 3. Private Placement | 1. Lelang 2. Bookbuilding 3. Private Placement |
| Journal of Islamic Economics & Social Science | Tradable | Tradable |
| Sifat Instrument | Sertifikat kepemilikan/penyertaan atas asset | Pengakuan Utang |
| Tipe Investor | 1. Konvesional 2. Syariah | Konvesional |
| Penghasilan bagi Investor | Journal of Islamic Economics & Social Science | Bunga/Kupon, Capital Gain |
| Dokumen yang diperlukan | 1. Dokumen Pasar Modal 2. Dokumen Syariah | Dokumen pasar modal |
| Underlying Asset | Perlu | Tidak Perlu |
| Penggunaan Hasil Penjualan (Proceed) | Description | Journal of Islamic Economics & Social Science |
| Bond | Legal Basis Trustee, Custodian, Agen Pembayar | Invite Agen Pembayar |
| Invite | Publisher | 1. Government 2. Corporation |

Source : <https://www.finansialku.com> and other literature (2020)

So, when looking at the general nature of sukuk, the quality is the same as other conventional financial asset-oriented markets. Including tradable, rankable, addable, legal flexibility, and redeemable based on a transaction or sharia contract underlying it.

2.2 Signalling Theory

Graham, Scott B. Smart, and William L. Megginson dividend signal models discuss the imperfections of the markets that make payment policies relevant: asymmetric information. If managers find out that their company is "strong" while investors for some reason do not know this, then managers may pay dividends (or aggressively buy back shares) in hopes of the quality of their company's signals to the market. Signals effectively separate strong companies from weak firms (so that strong companies can provide signals of their type to the market); it becomes expensive for a weak company to replicate the actions taken by strong companies.

According to Jogiyanto (2014), information published as an announcement will provide a signal for investors in making investment decisions. When information is announced, market participants first interpret and analyze the information as good news or bad news. If the announcement of the information is considered a good signal, then investors will be interested in trading stocks, thus the market will react which is reflected through changes in stock trading volume (Suwardjono, 2014). One type of information released by the company that can be a signal to parties outside the company is the annual report. Information disclosed in the annual report can be in the form of accounting information, namely information related to financial statements or information not related to financial statements. Meanwhile, according to Brigham and Houston (2014: 184) is a behavior of company management in providing guidance to investors regarding management's views on the company's prospects for the future. Signal theory addresses how signals of success or failure of management (agents) should be conveyed to the owner (principal). The impetus in giving signals arises because of the asymmetric information between the company (management) and outside parties, where investors know relatively less and slower internal company information than management.

2.3 Sukuk Ranking

Based on the Fatwa of the National Sharia Council of the Indonesian Ulama Council (DSN-MUI) Number: 32 / DSN-MUI / IX / 2002 concerning Sharia Bonds explained that Sukuk is a long-term securities based on sharia principles issued by issuers to sukuk holders which requires issuers to pay income to sukuk holders in the form of profit sharing / fees and pay back bond funds at maturity.

Meanwhile, according to the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), another opinion about the meaning of sukuk. According to the organization, sukuk is a certificate of a value represented after the close of registration, proof of receiving the value of the certificate, and using it as planned. Similarly, the share and ownership of an obvious asset, good, or service, or the capital of a particular project or the capital of a particular investment activity. Every sukuk issued must have an underlying asset. Ownership claims on sukuk are based on specific assets/projects. The use of sukuk proceeds must also not be contrary to sharia principles. In contrast to the bond process which can be used freely without regard to sharia provisions.

A sukuk before being offered to the investor community, it is required to be rated by a rating agency. The rating agency will provide an assessment of the issuer's bonds. The potential risk of a bond is assessed from many aspects. Different ratings, different methodologies in measuring the level of risk. Bonds generally have two types of bonds based on their level of risk, namely investment-grade bonds (bonds whose ratings fall into the top four rating categories) and noninvestment-grade, bond/high-yield, bond/junk bonds (bonds whose ratings do not fall into the top four rating categories) pay them to shareholders.

Sukuk rating is an indicator of timeliness in paying the principal and profit sharing of Islamic bonds, which reflects the risk scale of all Islamic bonds traded. Based on the decision of the Chairman of the Capital Market and Financial Institutions Supervisory Agency (Bapepam-LK) Number KEP/BL/2012, sukuk rating is an opinion on the ability to fulfill payment obligations on time by issuers related to the Sukuk issued. A rating agency is a rating that states whether a bond is investment grade or non-investment grade. The method of rating sukuk is the same as conventional bond rating. Sukuk rating in Indonesia is carried out by PT Pemingkat Efek Indonesia (PEFINDO) which was established in 1993. Rating companies in Indonesia until now besides Pefindo there are 2 more, namely Fitch Indonesia and ICRA. PEFINDO is a company that has long been trusted by BI to rate sukuk and conventional bonds. In addition, the number of companies that use PEFINDO's bond rating services is far more than other rating agencies. The rating symbol used by PEFINDO is the same as that used by Standart & Poor's Rating Service (S&P's), which is the highest rating with the symbol AAA, which represents the lowest bond risk. This similarity is because PEFINDO is affiliated with S&P's, so S&P's encourages PEFINDO in terms of rating methodology, criteria, and rating process.

Sukuk are in principle like conventional bonds, with the main differences, including the use of the concept of reward and profit sharing as a substitute for interest, the existence of an underlying transaction in the form of a certain amount of assets that are the basis for sukuk issuance, and the existence of a contract or agreement between the parties that is structured based on sharia principles. Sukuk must also be structured in a sharia manner so that this financial instrument is safe and free from usury, gharar and maysir (Soemitra, 2014: 141)..

| Peringkat Obligasi | Definisi |
|--------------------|---|
| idAAA(sy) | Memiliki kapasitas superior dalam long-term financial commitment dibandingkan dengan obligor lainnya |
| idAA (sy) | Terdapat sedikit perbedaan dengan idAAA(sy), tingkat idAA(sy) memiliki kapasitas yang sangat kuat dalam long term financial commitment dibandingkan dengan obligor lainnya. |
| idA(sy) | Memiliki kapasitas kuat dengan long term financial commitment dibandingkan dengan obligor lainnya. Namun lebih sensitif terhadap efek pasif dan perubahan ekonomi. |
| idBBB(sy) | Memiliki kapasitas cukup atau memadai dalam long term financial commitment dibandingkan dengan obligor lainnya. Namun kapasitas obligor akan melemah dengan kondisi ekonomi yang merugikan atau perubahan situasi dan kondisi lingkungan . |
| idBB(sy) | Memiliki kapasitas agak lemah dalam long term financial commitment dibandingkan dengan obligor lainnya. Obligor menghadapi ketidakpastian secara terus menerus untuk melawan kondisi bisnis, keuangan dan ekonomi yang membuat kapasitas obligor menjadi tidak memadai. |
| idB(sy) | Memiliki kapasitas yang lemah dalam long term financial commitment di bandingkan dengan obligor lainnya. Sehingga obligor tidak memiliki kemampuan untuk melawan kondisi bisnis, keuangan dan ekonomi. |
| idCCC(sy) | Kondisi obligor ini rentan terjadi gagal bayar dan bergantung pada kondisi bisnis dan keuangan yang membantu untuk mencapai financial commitment |
| idD(sy) | Obligor dengan peringkat ini adalah saat terjadinya gagal bayar (default) dan akan diberikan saat pertama kali obligor tidak dapat membayar kewajiban jangka panjangnya. |
| Catatan: | Peringkat dari idAA(sy) sampai idB(sy) dapat dimodifikasi dengan menambahkan plus (+) atau minus (-) untuk menunjukkan kekuatan relatif diantara kategori rating. |

Sumber : PT Pefindo

2.4 Current Ratio (CR)

In this study the ratio used to measure Liquidity is the Current Ratio (CR) where the definition of Cashmere (2016) states that:

"The current ratio is a ratio to measure a company's ability to pay short-term obligations or debt that is immediately due when it is billed as a whole. In other words, how much current assets are available to cover short-term liabilities that are soon due. The current ratio can also be said to be a form of measuring the level of safety (margin of safety) of a company".

According to Fahmi (2014) current ratio is a commonly used measure of short-term solvency, the ability of a company to meet debt needs when it matures". According to Hanafi and Halim (2016), explaining that the current ratio is to measure the company's ability to meet its short-term debt using its current assets (assets that will turn into cash within one year or one business cycle). The Current Ratio is a comparison between the amount of current assets and current debt".

The formula calculates the current ratio as follows:

$$Rasio Lancar = \frac{Aktiva Lancar}{Utang Lancar} \times 100\%$$

2.5 Total Asset Turn Over (TATO)

According to Fahmi (2011: 135) is "this ratio looks at the extent to which all assets owned by the company are effectively turned". Meanwhile, according to Sutrisno (2012: 221) total assets turn over (TATO) is "a measure of the effectiveness of asset utilization in generating sales. The greater the asset turnover, the more effectively the company manages its assets". The formula for calculating total assets turnover (TATO) according to Sudana (2015) is:

$$TATO = \frac{Penjualan}{Total Aktiva} \times 1 \text{ kali}$$

2.6 Debt Equity Ratio (DER)

This ratio compares own capital (Net worth) on the one hand with total debt (Total Debt) on the other. Formula:

$$DER = \frac{Total Hutang}{Modal Sendiri} \times 100 \%$$

The smaller the percentage ratio, the faster the company becomes insolvable. The level of solvency can be increased only by increasing own capital with the following alternatives: Adding assets without increasing debt or adding assets is relatively greater than increasing debt. Reducing debt without reducing assets or reducing debt is relatively large than reducing assets.

2.7 Return on Assets (ROA)

According to Sutrisno (2012: 222) Return On Assets (ROA) is a measure of the company's ability and generate profits with all assets owned by the company. According to Munawir (2015) "Return On Asset is one form of profitability ratio which is intended to be able to measure the company's ability with the overall funds used for its operations to generate profits".

According to Sudana (2015) Return On Assets, shows "the company's ability to use all assets owned to generate profit after tax. This ratio is important for management to evaluate the effectiveness and efficiency of company management in managing all company assets."

According to Kasmir (2016), Return On Assets is a ratio that shows the yield on the amount of assets used in the company.

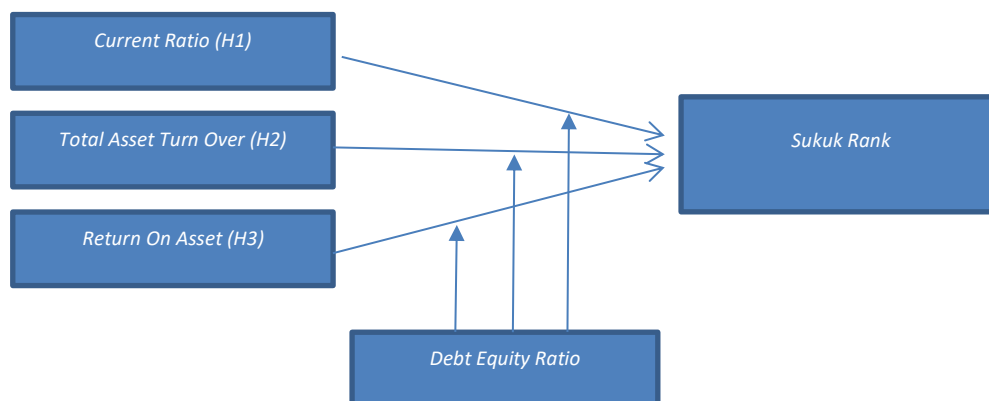
According to Fahmi (2012: 98), Return On Assets sees the extent to which the investment that has been invested is able to provide a return on profits as expected and the investment is actually the same as the company's assets invested or placed.

The formula for calculating return on assets (ROA):

$$ROA = \frac{EBIT}{Total Aktiva} \times 100 \%$$

Research Model, Hypotheses, and Methodology

From the results of the theory review above, a research model can be compiled that describes the entire variable included in this research study as shown in figure 2.



Picture 1 Thought Framework

In this study, the author conducted research in 2019 by visiting and downloading non-bank financial statement data through the Indonesia Stock Exchange website and has been ranked by Pefindo (www.pefindo.com). The author's research object is the rating of sukuk listed on the Indonesia Stock Exchange in the period 2013 - 2018.

The design of this study is a causal study, namely research conducted to determine the influence of independent variables on dependent variables. This is in line with Sugiyono (2017) that causal research is research that aims to determine causal relationships. Meanwhile, based on the data, this research is categorized as quantitative research, namely research whose data is in the form of numbers. This study was conducted to see the effect of current ratio (CR), total asset turn over (TATO), and return on asset (ROA) as independent variables and sukuk rank as a dependent variable moderated by debt to equity ratio (DER).

In this study, the population used was corporate sukuk issued in Indonesia. The sample represents a portion of the subjects of the population studied, representative of the entire population. Sampling in this study was carried out using the purposive sampling method, namely sampling carried out in accordance with the predetermined research objectives. Some of the criteria for selecting samples of companies listed on the Indonesia Stock Exchange based on purposive sampling are: 1) Sukuk issued by issuers and listed on the Indonesia Stock Exchange which in the observation year 2013-2018 are still circulating and active and ranked by Pefindo; 2) Sukuk does not default (fail) during the observation period.

In this study the data used are secondary data that have been processed previously and sourced from statistical data published by: 1) Indonesia Stock Exchange (IDX); 2) Financial Services Authority (OJK); 3) PT. PEFINDO; 4) Company Financial Statements.

The method in this study uses quantitative data methods. In this study, the data analysis used is panel data which is a combination of time-series data and crosssection data. In this study in processing data using the E-Views 9 program.

Results and Discussion

1. Descriptive Statistical Analysis

The results of the statistical descriptive analysis in the table below show the total number of non-bank corporate sukuk as many as 84 data samples.

| | No | Use of Sales Proceeds (Proceed) | Must be Sharia-compliant | Free | Related Institutions |
|---|---------------------|---|--------------------------|---|----------------------|
| SPV, | Trustee, Custodian, | Sharia Endorsement | Necessary | No Need | 0.863571 |
| Median | 2.000000 | 1.210000 | 1.015000 | 1.620000 | 0.475000 |
| Maximum | 4.000000 | 4.390000 | 25.01000 | 11.00000 | 2.550000 |
| Minimum | 0.000000 | 0.220000 | Bond Rating | Definition | idAAA |
| Have superior capacity in long-term financial commitment compared to other obligors | idAA | There is a slight difference with idAAA | idA | Have a strong capacity with long-term financial commitment compared to other obligors. However, it is more sensitive to passive effects and economic changes. | idBBB |
| Have sufficient or adequate | idBB | Has a rather weak capacity | idB | Have a weak capacity in | idCCC |

| | | | | | |
|--|----------|---|----------|---|----------|
| capacity in long-term financial commitment compared to other obligors. However, the obligor's capacity will weaken with adverse economic conditions or changes in environmental situations and conditions. | | in long-term financial commitment compared to other obligors. Obligor's face continuous uncertainty to counter business, financial and economic conditions that render obligors' capacity inadequate. | | long-term financial commitment compared to other obligors. So the obligor does not have the ability to fight business, financial and economic conditions. | |
| This obligor condition is prone to default and depends on business and financial conditions that help to achieve financial commitment | idD | Obligors with this rating are in default and will be granted the first time the obligor is unable to pay its long-term obligations. | Note: | Ratings from idAA | 2.790629 |
| Jarque-Bera | 0.416703 | 119.9970 | 3201.490 | 409.5792 | 17.00323 |
| Probability | 0.811922 | 0.000000 | 0.000000 | 0.000000 | 0.000203 |
| Sum | 221.00 | 111.1600 | 101.7800 | 185.8600 | 72.54000 |
| Sum Sq. Dev. | 63.55952 | 43.58527 | 3676.801 | 2018.330 | 41.62553 |
| Observations | 84 | 84 | 84 | 84 | 84 |

Source : Output result e-views 9(processed)

Based on Table 5.1 the descriptive statistical test results are as follows:

- 1) The average value of the Current Ratio in the observation period (2013-2018), was 1.32, so it can be concluded that non-bank companies that issued sukuk in 2013-2018 in the sample had an average CR value of more than 1%. Standard deviation which is a description of deviations that occur in each observed value of the average distribution (Budiarto, 2002: 96) with a value of 0.724654 is below the average value, shows that the calculated average in the observed data is able to represent the true picture of CR, so it is good to conclude from the average CR because in the observed data there is a small deviation in the observed data sample. The minimum CR value of 0.22 is from the CR owned by the Timah company for the 2013 period.
- 2) The average value of the Debt to Equity Ratio (DER) in the observation period was 1.21, this value shows that the average non-bank company issuing sukuk for the 2013-2018 period has greater debt than the company's capital. The standard deviation of 6.655735 is greater than the average, indicating that the calculated average in the observed data has not been able to represent the true picture of DER. The existence of this data deviation can be seen from the comparison between the minimum value of DER in Sewatama Resources which continues to decline consecutively in 2017-2018 of -44.97 with the maximum value of DER in Sewatama Resources in 2016 which reached 25.01.
- 3) The average value of Return on Assets (ROA) is 2.21%, the average non-bank company has an ROA above 1 which shows that the company's ability is good to manage its assets so as to generate profits. The standard deviation of 4.931250 is higher than the calculated average, indicating that the deviation of data

from the sample on the ROA variable is greater so that the calculated average value is not enough to describe the true ROA. The minimum value of the ROA variable in the observed period was -22.90 owned by Matahari Putra Prima in the 2017 period, and the maximum value of the ROA variable was 11% owned by Mayora in 2016.

- 4) The average value of Total Asset Turn Over (TATO) is 0.86 with a standard deviation of 0.708175 smaller than the average, so the average calculation is considered to have been able to describe the actual state of the TATO variable. From an average result of 0.86 or less than 1, it shows that non-bank companies have not been efficient enough in generating income from their total assets. The minimum value of TATO is 0.20 in the State Electricity Company in the 2017 period and the maximum value is 2.55 in the State Electricity Company in 2015.
- 5) The average value of the sukuk rating is 2.63, this shows that the average rating owned by non-bank companies ranges from idA to idAA. The calculated average value has been able to describe the actual state of the sukuk rating variable, this can be seen from the standard deviation value of 0.875087 which is lower than the calculated average value. The minimum variable value of sukuk rating is owned by Sumberdaya Sewatama in 2018, namely with idBB rating. Based on the rating size by numbers, Sumberdaya Sewatama's rating is 0 because it ranges from idBB(sy)+ - idD(sy) (Purwaningsih, 2013). Meanwhile, the State Electricity Company and Angkasa Pura I can maintain their sukuk rating at idAAA in the 2013-2018 period. Then followed by Indosat in 2015 which managed to raise its sukuk rating to idAAA and lasted until 2018.

2. Estimation Model Selection

The data panel regression technique can be used three alternative methods in its processing. These approaches include the following:

- 1) The Pooled OLS Method
- 2) Fixed Effect (FEM) method, and
- 3) Random Effect (REM) method.

The following are the results of the approach to the selection of the model to be used:

- 1) 0.000204

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------------|-------------|----------|
| C | 2.674928 | 0.094148 | 28.41201 | 0.0000 |
| CR*DER | 0.049028 | 0.011173 | 4.388089 | 0.0000 |
| TATO*DER | -0.060051 | 0.027389 | -2.192546 | 0.0312 |
| ROA*DER | 0.009070 | 0.005918 | 1.532693 | 0.1293 |
| RATING | | CRDER | | ROA |
| TATTOO | | Mean2.630952 | | 1.323333 |
| 1.211667 | | 2.2126190.863571 | | Median |
| 2.000000 | | 1.2100001.015000 | | 1.620000 |
| 0.475000 | | Maximum4.000000 | | 4.390000 |
| 25.01000 | | 11.000002.550000 | | Minimum |
| 0.000000 | | 0.220000 | | |

Source : Eviews 9 Output Results

In the common model above, 2 independent variables moderated by the DER variable showed significant influence results (t-test probability) significant with $\alpha = 5\%$ and an adjusted R^2 value of 0.186931, in the Durbin-Watson test which was 2.568525 (above range 2) which indicates no autocorrelation problems. So that the pooled regression method or common effect method can capture the true picture of the relationship that occurs between

the independent variable and the dependent variable, as well as the relationship between each individual cross section. Then to compare with other models, the Fixed Effect method is used.

2) Fixed Effect (FEM) Method

0.177683:

| 119.9970 | 3201.490 | 409.5792 | 17.00323 | Probability |
|--|-------------------|----------------------|-----------|-------------|
| 72.54000 | Sum Sq. Dev. | 63.55952 | 43.58527 | 3676.801 |
| 2018.330 | 41.62553 | Observations | 84 | 84 |
| 84 | 84 | 84 | -2.210451 | 0.0305 |
| ROA*DER | 0.009581 | 0.006612 | 1.449104 | 0.1520 |
| <i>Effects Specification</i> | | | | |
| <i>Cross-section fixed (dummy variables)</i> | | | | |
| 0.094148 | 28.412010.0000 | | | CR*DER |
| 0.049028 | 0.0111734.388089 | | | 0.0000 |
| TATO*DER | -0.0600510.027389 | | | -2.192546 |
| 0.0312 | ROA*DER0.009070 | | | 0.005918 |
| 1.532693 | 0.1293 | Hannan-Quinn criter. | | 2.876295 |
| F-statistic | 1.382350 | Durbin-Watson stat | | 2.683222 |
| Prob(F-statistic) | 0.177683 | | | |

Source : Eviews 9 Output Results

From the table above is the test result using a fixed effect model. It can be seen that in the fixed test, the variables CR and TATO moderated by DER have a very significant effect on sukuk rating, while ROA moderated by DER has no influence on sukuk rating. Although the R Squared value in this fixed model is higher when compared to the common model which is 24%, but after being adjusted and corrected by standard errors, the Adjusted R Squared becomes smaller than the common effect. Then the value of prob. F statistics show that independent variables cannot explain the dependent variable.

0.9955

2.410522

Schwarz criterion

-97.24192

| Effects Test | Statistic | d.f. | Prob. |
|--------------------------|-----------|---------|--------|
| Cross-section F | 0.218444 | (13,67) | 0.9979 |
| Cross-section Chi-square | 3.486932 | 13 | 0.9955 |

Source : Eviews 9 Output Results

From the table above, you can see the probability value (Prob.) for Cross-section F of 0.9979 which is > 0.05 so it can be concluded that the common effect model is more appropriate than the fixed effect model for this study. The common effect model that has been selected is then compared with the random effect model.

3) Model Random Effect

2.568525

| | | | | |
|----------|-----------|----------|---------------|----------|
| 26.22582 | 0.0000 | CR*DER | 0.053690 | 0.012955 |
| 1.449104 | 0.1520 | 0.100764 | 26.54656 | 0.0000 |
| CR*DER | 0.049028 | 0.011958 | 4.099981 | 0.0001 |
| | | | Effects | |
| TATO*DER | -0.060051 | 0.029313 | Specification | 0.0438 |
| ROA*DER | 0.009070 | 0.006334 | 1.432061 | 0.1560 |

Effects Specification

| | | | |
|-------------------|--|-------------|------------|
| | | S.D. | R-squared |
| | | Sum squared | |
| 2.678535 | | resid | 47.78504 |
| | | Log | |
| Schwarz criterion | | 3.170486 | likelihood |

Weighted Statistics

| | | | | |
|--------------------------|-----------------|--------------------|-------|----------|
| | | Redundant | Fixed | Effects |
| R-squared | 0.216319 | Tests | | 2.630952 |
| | | Equation: | | |
| Adjusted R-squared | FE_MODERATEDDER | S.D. dependent var | | 0.875087 |
| Test cross-section fixed | | | | |
| effects | 0.789069 | Sum squared resid | | 49.81039 |
| F-statistic | 7.360783 | Durbin-Watson stat | | 2.568525 |
| Prob(F-statistic) | 0.000204 | | | |

Unweighted Statistics

| | | | |
|-----------|----------|--------------------|----------|
| R-squared | 0.216319 | Mean dependent var | 2.630952 |
|-----------|----------|--------------------|----------|

Sum squared resid 49.81039 Durbin-Watson stat 2.568525

Source: Eviews Data Processing Results

In the random model above, 2 independent variables moderated by the DER variable showed significant influence results (t-test probability) significant with $\alpha=5\%$ and an adjusted R^2 value of 0.186931, in the Durbin-Watson test of 2.568525 (above range 2) which indicates no autocorrelation problems. So that this random effect method can capture the true picture of the relationship that occurs between the independent variable and the dependent variable, as well as the relationship between each individual cross section. Then the value of prob. F statistics show that the independent variable can explain significantly the influence of the dependent variable and the independent variable. The random effect model used is one that has been weighted.

1.0000

Effects Specification

| | Prob. | Rho |
|----------|----------|----------|
| 2.674928 | 0.100764 | 26.54656 |
| 0.0000 | CR*DER | 0.049028 |

Source : Eviews9 output result

From the table above, we can see the probability value (Prob.) for random Cross-section of 0.0000 whose value is < 0.05 so that it can be concluded that the random Effect model is more appropriate than the common Effect model for this study.

3. Classical Assumption Test

Based on the results of durbin Watson in testing the common effect model discussed earlier, that there is no autocorrelation in this research data. Then in the normality test conducted with the common effect model as the best model of other models, it was proven that the research sample passed the normality test with the Jarque fallow indicator above 0.05, which is 7.727105.

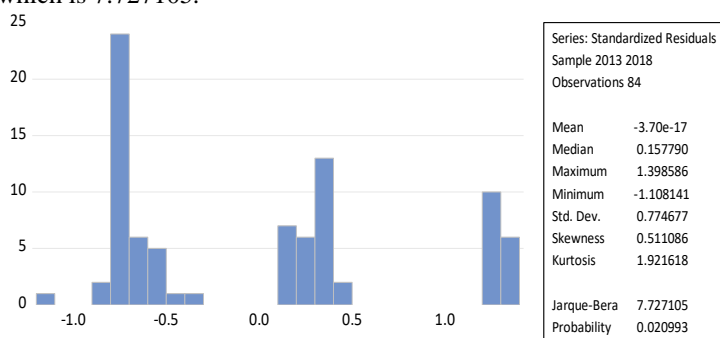


Table 5.1 Normality Test Results

4%

| | |
|----------|----------|
| 0.006334 | 1.432061 |
| 0.1560 | 16% |
| CR | 13% |
| DER | 14% |
| ROA | 14% |
| TATO | 4% |

Table... Multicollinearity Test Results

Heteroscedasticity is a condition in which disturbances that arise in the regression function of the population do not have the same variance. A good regression model is a regression model in which heteroscedasticity does not occur. In this study because it uses the panel data regression Eviews program, the data in this study has been free from heteroscedasticity problems. Because one of the advantages of using panel data is that it can minimize the bias that may be caused by individual data aggregation, panel data is able to control individual heterogeneity so that it can be used to test and build complex behavioral models so that this research can be said to be free from heteroscedasticity

Pass autocorrelation test.

| | | |
|-------------------|--|-------------------------------|
| Uji | Probabilitas | Effects Specification |
| Normalitas | Uji JB7,7 >0,05% | Lolos uji normalitas |
| Multikolinearitas | R-Square Var Depend > R-Square Var Independe | S.D. |
| Rho | Regresi data panel melalui eviews | Lolos uji Heteroskedastisitas |
| Auto korelasi | Durbin Watson mencapai 2 | Lolos uji autokorelasi |

Table 5. Classical Assumption Test Results

4. Test the hypothesis

After the classical assumption test, it will be the t test and F test to determine the significance, the test results can be seen in table 4.5 below:

Strong1 HYPOTHESIS TEST RESULTS

| Uji t | | | | |
|--------------------------------|-------------|----------------------|------------|----------------------|
| Variabel | Probability | t-statistic | Koefisien | Cross-section random |
| 0.000000 | 0.0000 | Idiosyncratic random | 0.844517 | 1.0000 |
| TATO*DER | 0.0438 | -2.048590 | -0.060051 | Signifikan |
| ROA*DER | 0.1560 | 1.432061 | 0.009070 | Tidak Signifikan |
| Uji F | | | | |
| Weighted Statistics | Probability | F-statistic | Keterangan | |
| CR*DER, TATO*DER ROA*DER | 0.000204 | 7.360783 | Signifikan | |
| Adjusted R-squared | | | Keterangan | |

| | |
|----------|------|
| 0.186931 | Kuat |
|----------|------|

Source : Eviews 9 result (data processed)

Based on the test results, a panel data regression equation can be compiled as follows:

$$\text{Rating} = 2.674928 + 0.049028\text{CR} - 0.060051\text{TATO} + 0.008070\text{ROA} + e.it$$

The results of the hypothesis test to determine the effect of independent variables CR, TATTOO, ROA) on the dependent variable (Rank) moderated by the moderating variable (DER) are as follows:

- 1) In the F test, it is known that the significance value is $< \alpha=5\%$ with a probability of 0.000000 which is below 0.05. Thus, CR and TATO variables moderated by DER simultaneously affect sukuk rating and DER moderation strengthens the influence between CR and TATO with sukuk rating. Meanwhile, due to moderation by DER, the ROA variable has no effect on sukuk rating.
- 2) The adjusted R-squared value in sukuk circulation in Indonesia of 0.186931 shows that variations in rating changes can be explained simultaneously by CR and TATO variables moderated by DER although it does not show a strong influence on rating, while the remaining 82% is explained by other factors that are not included in the model.
- 3) The t test is used to see the magnitude of the influence of independent variables (CR*DER, TATO*DER, ROA*DER) on the dependent variable (rating) partially on non-bank corporate sukuk circulating for the 2013-2018 period. From the regression results of panel data, it is known that CR and TATO moderated by DER have a significant effect on the dependent variable while DER moderation on ROA cannot affect the dependent variable.

5. Discussion

Based on the results of the regression equation, it is known that the value of coefficients C is 2.674928, if it is assumed that all independent variables (CR, TATO and ROA) are 0, then the sukuk rating has increased by 267%. The influence of individual variables based on regression calculations is as follows:

1) The Effect of Current Ratio on Sukuk Rating Moderated by Debt Equity Ratio

From the regression calculation, Current Asset has a significant positive effect on the sukuk rating moderated by the Debt Equity Ratio. Thus, the first hypothesis that current assets are moderated by DER has an effect on sukuk ratings is acceptable. The lower the current ratio value, the better the sukuk rating. In general, the higher the liquidity ratio means the more guaranteed the company's debts to creditors. A high level of liquidity will indicate the company's strong financial condition so that financially it will affect the prediction of sukuk ratings. As for this study, a high current ratio (CR) level indicates the presence of excessive cash compared to the level of need / presence of elements of current assets that are low liquidity (such as excess inventory). This is because current assets are not utilized effectively, while a low current ratio (CR) indicates that management has operated current assets effectively. The cash balance is made minimum according to the needs and the turnover rate of receivables and inventories is sought to the maximum, therefore in this case it can affect the rating of the sukuk to rise.

The results of this study support research conducted by Endah Winanti, Siti Nurlaela, Kartika Hendra Titisari (2017) the study shows that the current ratio variable has no effect on sukuk rating.

The results of this study contradict research conducted by research conducted by Ratna Puji Astuti (2017), Damalia Afiani (2013), Silviana Pebruary (2016) the study shows that the current ratio variable affects sukuk rating.

2) The Effect of Total Asset Turn Over on Sukuk Rating Moderated by Debt Equity Ratio

From the regression calculation, Total Asset Turn over has a significant negative effect on sukuk ratings moderated by the Debt Equity Ratio. Thus, the second hypothesis that the variable total asset turn over (TATO) moderated by DER has an effect on sukuk ratings is accepted. The lower the total asset turn over value, the higher the sukuk rating. In general, the Productivity Ratio (total asset turnover) has no effect on sukuk ratings. So the size of this productivity ratio does not always reflect the effectiveness of company management and similarly for sukuk ratings, a high productivity ratio does not always result in a high sukuk rating. As for this study, it shows that the decreased total asset turn over (TATO) caused by the company in utilizing existing resources shows greater than fixed assets. Low assets at the sales level result in greater excess funds embedded in these fixed assets for the development of company size, so as in this case it can increase the rating of sukuk because it has a large fixed asset value.

The results of this study support research conducted by Ratna Puji Astuti (2017) the study shows that the variable total asset turn over affects sukuk rating.

The results of this study contradict research conducted by Siti Nurfaridaningrum (2017) the study shows that the variable total asset turn over has no effect on sukuk rating.

3) The Effect of Return On Assets on Sukuk Ratings Moderated by Debt Equity Ratio

From the regression calculation, the return on assets ratio has no effect on the sukuk rating moderated by the Debt Equity Ratio. Return on assets looks at the extent to which the investment that has been invested is able to provide a return on profits as expected and the investment is actually the same as the company's assets that are invested or placed. A high return on assets indicates a good level of company profitability, this can indicate the company's ability to go concern. This caused the rating on the company to rise.

The results of this study support research conducted by Galih Estu Pranoto, Ratna Anggraini Erika Takidah (2017), Endah Winanti, Siti Nurlaela, Kartika Hendra Titisari (2017), Lidiya Malia (2015) the study shows that the variable return on assets has no effect on sukuk rating.

The results of this study contradict research conducted by research conducted by Damalia Afiani (2013), Ratna Puji Astuti (2017), Silviana Pebruary (2016) the study shows that the variable return on assets affects sukuk ratings.

Conclusion

Based on research and discussion that has been carried out in the previous chapter, the conclusions that can be drawn from this study are as follows: (1) Current Asset (CR) has a significant positive effect on sukuk rating. A low current ratio (CR) indicates that management has operated current assets effectively. The cash balance is made minimum according to the needs and the turnover rate of receivables and inventories is sought to the maximum, therefore in this case it can affect the rating of the sukuk to rise; (2) Total asset turn over has a significant negative effect on sukuk rating. The lower the total asset turn over value, the higher the sukuk rating. This shows that the decreased total asset turn over (TATO) caused by the company in utilizing existing resources shows greater than fixed assets. Low assets at the sales level result in greater excess funds embedded in these fixed assets for the development of company size, so as in this case it can increase the rating of sukuk because it has a large fixed asset value; and (3) Return on assets does not have a positive effect on sukuk ratings. The company's rate of return on assets indicates the issuer's inability to pay (default) but does not affect the rating assigned to the company. In theory, a high return on assets indicates a good level of company profitability, this can indicate the company's ability to go concern, should this cause the company's rating to rise.

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