



Does Profitability, Liquidity, Leverage, and Productivity Affect Sukuk Ratings? Evidence from Islamic Banks in Indonesia

Apakah Profitabilitas, Likuiditas, Leverage, dan Produktivitas Mempengaruhi Peringkat Sukuk? Bukti dari Bank Syariah di Indonesia

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ABSTRACT

This study aimed to evaluate the impact of profitability, liquidity, leverage, and productivity on Sukuk ratings within the banking sector. The study focused on Islamic Commercial Banks and Islamic Business Units in Indonesia. A purposive sampling technique was employed to select a dataset of 80 observations from Islamic Commercial Banks and Islamic Business Units rated by PT. PEFINDO between 2015 and 2019. Secondary data for the study were gathered from financial reports on the official websites of the mentioned entities and Sukuk or bond ratings issued by PT. PEFINDO, accessible through its website. The analysis utilized multiple regression analysis. The research findings indicate that profitability, liquidity, and leverage negatively impact Sukuk ratings, whereas productivity does not show a significant influence. This study contributed a distinctive approach to comprehending Sukuk ratings by thoroughly analyzing four crucial independent variables, emphasizing the Indonesian banking sector. However, the study's generalizability is limited due to its restricted timeframe and reliance on secondary data.

Keywords: Profitability, Liquidity, Leverage, Productivity, Sukuk Rating

ABSTRAK

Penelitian ini bertujuan untuk mengevaluasi dampak dari profitabilitas, likuiditas, leverage, dan produktivitas terhadap peringkat sukuk di sektor perbankan. Penelitian ini berfokus pada Bank Umum Syariah dan Unit Usaha Syariah di Indonesia. Teknik purposive sampling digunakan untuk memilih dataset yang terdiri dari 80 observasi dari Bank Umum Syariah dan Unit Usaha Syariah yang diperingkat oleh PT. PEFINDO antara tahun 2015 dan 2019. Data sekunder untuk penelitian ini dikumpulkan dari laporan keuangan di situs web resmi entitas yang disebutkan dan peringkat sukuk atau obligasi yang diterbitkan oleh PT. PEFINDO yang dapat diakses melalui situs webnya. Analisis menggunakan analisis regresi berganda. Temuan penelitian menunjukkan bahwa profitabilitas, likuiditas, dan leverage berpengaruh negatif terhadap peringkat sukuk, sedangkan produktivitas tidak menunjukkan pengaruh yang signifikan. Penelitian ini memberikan kontribusi pendekatan yang berbeda untuk memahami peringkat Sukuk dengan menganalisis secara menyeluruh empat variabel independen yang penting, dengan menekankan pada sektor perbankan Indonesia. Namun, generalisasi dari studi ini terbatas karena jangka waktu yang terbatas dan ketergantungan pada data sekunder.

Kata Kunci: Profitabilitas, Likuiditas, Leverage, Produktivitas, Peringkat Sukuk

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I. INTRODUCTION

The primary objective of this study is to examine the factors influencing Sukuk ratings in the context of the Indonesian Sharia-compliant financial market. Investment activities conducted in a market commonly referred to as the capital market include various investment instruments, including conventional and Sharia-compliant financial instruments such as Sharia bonds or Sukuk (Muhammad & Biyantoro, 2019). The Sharia capital market in Indonesia has shown promising growth, supported by established market institutions and a variety of investment instruments. In addition, the growing awareness and understanding of Islamic economics among the population, with Muslims accounting for 85% of the total population, further indicates significant market potential (Winanti et al., 2017).

In Indonesia, the regulatory body overseeing Shariah principles in the capital market is the National Shariah Council of the Indonesian Ulama Council (DSN-MUI). The first fatwa related to the Sharia capital market was issued in 2001, namely Fatwa No. 20 on Guidelines for Implementing Investment in Sharia Mutual Funds. Subsequently, Fatwa No. 40 concerning the Sharia capital market and general guidelines for the application of Sharia principles in the capital market was issued in 2003, and Fatwa No. 80 concerning the application of Sharia principles in the mechanism of equity securities trading in the regular market of the stock exchange was issued in 2011 (www.idx.co.id, 2018).

The Financial Services Authority has implemented regulations specific to the Sharia capital market, including POJK No. 15/POJK.04/2015 on the Implementation of Sharia Principles in the Capital Market, POJK No. 16/POJK.04/2015 on Sharia Experts in the Capital Market, POJK No. 17/POJK.04/2015 on the Issuance and Requirements of Sharia Securities in the Form of Shares by Sharia Issuers or Sharia Public Companies, POJK No. 18/POJK.04/2015 on the Issuance and Requirements of Sukuk, POJK No. 19/POJK.04/2015 on the Issuance and Requirements of Sharia Mutual Funds, POJK No. 20/POJK.04/2015 on the Issuance and Requirements of Sharia Asset-Backed Securities, POJK No. 30/POJK.04/2016 on Sharia Real Estate Investment Funds in the Form of Collective Investment Contracts, and POJK No. 53/POJK.04/2015 on the Contracts Used in the Issuance of Sharia Securities in the Capital Market (www.ojk.go.id, 2017).

According to Fatwa No. 32/DSN-MUI/IX/2002 by the National Sharia Council of the Indonesian Ulama Council, Sharia bonds are long-term securities issued by issuers based on Sharia principles, obligating issuers to distribute income to bondholders in the form of profit-sharing/margin/fees and to repay the bond funds upon maturity (Fatwa of DSN-MUI: No. 32/DSN-MUI/IX/2002, 2002).

To facilitate investment decision-making, Sukuk rating is essential for distinguishing suitable Sukuk for investment purposes and evaluating their associated risk levels (Pebruary, 2016). Sukuk ratings provide insights into the risk-return profile of an investment in a company, with higher-rated companies generally indicating lower default risk (Hamida, 2017).

Indonesia boasts a reputable debt securities rating agency, PT Pemeringkat Efek Indonesia (PEFINDO), which is one of the oldest and most trusted rating agencies. Established on December 21, 1993, through the initiative of the Financial Services Authority and Bank Indonesia, PEFINDO has been in operation for approximately 26 years. PEFINDO has provided rating services to over 700 companies and local governments. Additionally, PEFINDO has benefited from the expertise of renowned global rating agencies, such as Standard & Poor's (S&P), since 1996, which has aided in the development of internationally standardized rating methodologies (www.pefindo.com, 2019). In general, Sukuk and bond ratings assigned by rating agencies at PEFINDO include idAAA, idAA, idA, idBBB, idBB, idB, idCCC, and idD (PEFINDO, 2018).

In terms of the development of corporate Sukuk, the cumulative issuance value reached IDR 48.24 trillion in 2019. Moreover, the outstanding value of corporate Sukuk in 2019 increased by 40.05 percent compared to 2018, reaching a total of IDR 29.83 trillion. The number of outstanding Sukuk reached 143, representing an increase of 44.44% compared to the previous year. Currently, there are three types of contracts used for corporate Sukuk issuance in Indonesia: *ijarah*, *mudharabah*, and *wakalah*. Of the 143 corporate sukuk, 96 series (67.13%) used *ijarah*, 41 series (28.67%) used *mudharabah*, and 6 series (4.20%) used *wakalah* based on the proportion of sukuk contracts. In terms of outstanding value, *ijarah* accounted for IDR 16.62 trillion (55.71%), *mudharabah* for IDR 11.76 trillion (39.43%), and *wakalah* for IDR 1.45 trillion (4.86%) (OJK, 2019).

The financial condition of a company can be assessed using financial ratios, which provide a means to evaluate the relationship between different elements within financial statements. Ratings assigned by rating agencies reflect an assessment of a company's financial performance based on

an analysis of financial ratios (Winanti et al., 2017).

Several previous studies have examined the factors that influence sukuk or bond ratings, including studies by February (2016); Astuti (2017); Pramesti (2017); Saputri & Suprayogi (2018); and Muhammad & Biyantoro (2019). These studies have presented different results. For example, February (2016); Astuti (2017); Saputri & Suprayogi (2018); Hamida (2017); and Muhammad & Biyantoro (2019) found that profitability has a positive impact on sukuk ratings, while Winanti et al., (2017) reported otherwise, suggesting that profitability ratios have no significant impact on sukuk ratings. Moreover, studies conducted by February (2016); Melinda & Wardani (2018); and Muhammad & Biyantoro (2019) indicated that leverage has a negative impact on Sukuk ratings, in contrast to the findings of Henny (2016); Kustiyaningrum et al., (2016); and Hamida (2017) who found no significant impact of leverage on bond or Sukuk ratings. Furthermore, Henny (2016); Winanti et al., (2017); and Astuti (2017) reported a significant positive impact of productivity ratios on Sukuk or bond ratings, while Tensia et al., (2015); Burhanudin et al., (2017); and Vina (2017) found no significant relationship between productivity ratios and bond ratings.

This study focused on Sharia-compliant institutions, specifically Islamic commercial banks and Islamic business units. Sharia-compliant institutions need to evaluate financial ratios to understand their financial performance and facilitate bond ratings (Astuti, 2017). Given the inconsistent findings of previous studies, the authors were motivated to conduct further research on the factors influencing sukuk ratings. In contrast to the study by Winanti et al., (2017) which analyzed the impact of liquidity ratios, productivity ratios, profitability ratios, and solvency ratios on Sukuk ratings for the period 2011-2015, this study specifically examined Islamic commercial banks and Islamic business units for the period 2015-2019. The change in the research object from non-financial companies to the banking sector, specifically Islamic Commercial Banks and Islamic Business Units, was driven by the significant growth of the Islamic banking industry and its role in promoting economic growth in the real sector as both commercial and investment banks. In addition, the objective of the study was the evaluation of the financial performance of these Shari'ah-compliant institutions. Therefore, based on the aforementioned rationale, this study examines the impact of profitability, liquidity, leverage and productivity on sukuk ratings in Islamic commercial banks and Islamic business units in Indonesia.

Islamic commercial banks and Islamic business units are the focus of this study due to their importance in the context of the Indonesian Sharia-compliant financial market. The choice is motivated by the critical role these institutions play in the growth of the Shariah capital market, given their involvement in various Shariah-compliant financial instruments, including Sukuk. As key players in the Islamic banking industry, their financial performance and sukuk ratings are of particular interest given the significant market potential and growing awareness of Islamic finance in Indonesia.

The uniqueness of this research lies in its specific focus on Islamic commercial banks and Islamic business units in the Indonesian context. While there have been previous studies on sukuk ratings, most of them have examined non-financial companies or had a broader scope. This study narrows its focus to Sharia-compliant institutions within the banking sector and provides a more detailed analysis of the factors influencing sukuk ratings. It fills the research gap by specifically examining the financial performance of Islamic banks and business units, providing insights that contribute to a broader understanding of sukuk ratings.

The research problem formulated in this study revolved around understanding the factors influencing sukuk ratings in Islamic commercial banks and Islamic business units in Indonesia. This is motivated by the dynamic growth of the Shariah capital market in Indonesia and the need to comprehensively assess the financial performance of Shariah-compliant institutions. Previous studies have yielded mixed results on the impact of various financial ratios on Sukuk ratings, which calls for further investigation, particularly in the context of Islamic banking. The change of the research object from non-financial corporations to the banking sector is justified by the significant role played by Islamic banks in promoting economic growth and their unique position in the issuance of Sukuk. Therefore, the research aims to fill existing gaps and contribute valuable insights to the field of Sukuk ratings, specifically within the Islamic banking sector in Indonesia.

II. LITERATURE REVIEW

An Overview of Islamic Banks, Sukuk Issuance, and Sukuk Ratings

Islamic banks have experienced significant growth and development over the years. These financial institutions operate in accordance with Islamic principles, avoiding interest-based transactions and adhering to Shariah-compliant practices. The global demand for Islamic financial services has led

to the establishment and expansion of Islamic banks, which provide an alternative banking system for individuals and businesses seeking financial services in accordance with Islamic ethics.

Sukuk, commonly known as Islamic bonds, are a key component of Islamic finance. The issuance of Sukuk involves the creation of financial instruments that comply with Shariah principles. Sukuk serve as an alternative to conventional bonds and are structured to generate returns without violating Islamic prohibitions on interest. The sukuk market has experienced significant growth, reflecting the increasing popularity of Islamic finance as a viable investment option for both issuers and investors. Governments, corporations and financial institutions are using sukuk as a means of raising capital while complying with Islamic financial principles.

Sukuk ratings play a critical role in assessing the creditworthiness and risk associated with Sukuk issuances. These ratings are assigned by reputable rating agencies to provide investors with insight into the financial health and performance of sukuk-issuing entities. The rating process involves an evaluation of various financial indicators, including profitability, liquidity, leverage and productivity. A higher sukuk rating generally indicates a lower risk of default and can attract a broader base of investors. Sukuk ratings contribute to the transparency of the Islamic financial market, help investors make informed decisions and promote confidence in Shariah-compliant financial instruments.

Signaling Theory

Signaling theory elucidates how company communicate information signals to external parties, encompassing various types of information ranging from corporate policies to financial statement information (Muhammad & Biyantoro, 2019). Management's communication of financial information can serve as a predictive signal to credible sukuk rating agencies. Ratings can serve as a signal to investors about a company's condition, including the quality and risk associated with meeting the Sukuk's obligations (Hadinata, 2020). Signaling theory assumes that managers or companies have a qualitative information advantage over other parties. In addition, they use specific facilities and metrics to signal the quality that exists within the company (Gumanti, 2009). Signaling theory can provide insights into the likelihood of future events, such as the probability of bond payment default (Sari & Yasa, 2016).

Signaling theory can be understood as the maintenance of trust. An example of this is demonstrating trustworthiness to issuers by disclosing financial reports to the public. These financial reports are presented as they are or as the company is. Falsification of financial reports may be detrimental to various stakeholders, including investors (Saputri & Suprayogi, 2018). Information asymmetry can occur due to uneven distribution of information or when one party has superior information. For example, managers may have better insights into the company's prospects compared to its investors. Information asymmetry may make it difficult for investors and creditors to distinguish between high and low quality company (Sari, 2007).

Profitability and Sukuk Ratings

Profitability ratios represent a company's ability to generate profits in terms of total assets, return on equity, and sales. Profitability reflects how effectively a company operates to generate profits (Sari, 2007). High profitability increases the likelihood of achieving an investment grade rating (Tamara, 2013). Higher profits earned by a company lead to better sukuk ratings, as high profitability reduces the risk of defaulting on obligations. As a result, credit rating agencies are likely to assign favorable sukuk ratings (Muhammad & Biyantoro, 2019). The ability of a company to meet its obligations due to high profitability is a positive signal that it conveys, which is consistent with the signaling theory in which company communicates positive news. Research conducted by February (2016); Astuti (2017); Pramesti (2017); Saputri & Suprayogi (2018); and Muhammad & Biyantoro (2019) all show a positive impact of profitability on sukuk ratings. Based on these findings, the hypothesis is as follows:

H1: Profitability has a positive impact on Sukuk ratings.

Liquidity and Sukuk Ratings

A company's liquidity reflects its ability to meet short-term obligations smoothly and promptly (Saputri & Suprayogi, 2018). Due to low liquidity, there are fewer opportunities to meet operational needs and limited profitability, which can lead to difficulties in meeting current obligations. Higher liquidity in a company indicates better prospects and a potential investment grade rating. This can occur when current assets exceed current liabilities (Tamara, 2013). Higher liquidity in a company serves as a positive signal, according to signaling theory, and attracts investor interest in the form of investment. Studies by February (2016); Astuti (2017); and Saputri & Suprayogi (2018) all show a significant positive impact of liquidity on sukuk ratings. Based on these findings, the hypothesis is as follows:

H2: Liquidity has a positive impact on Sukuk ratings.

Leverage and Sukuk Ratings

Leverage measures the extent to which a company is financed by debt. Company classified as extremely leveraged face high debt levels, which can be precarious. Therefore, companies must strike a balance between the amount of debt they take on and finding sources to repay that debt (Kustiyaningrum et al., 2016). Higher leverage increases the risk of company failure, while lower leverage leads to better ratings (Nurakhiroh et al., 2014). High leverage can lead to a non-investment grade rating (Tamara, 2013). Lower leverage serves as a positive signal as it indicates a company's ability to meet its obligations, which is consistent with the signaling theory notion that a company's ability to meet its obligations attracts creditors and investors. Research by February (2016); Melinda & Wardani (2018); and Muhammad & Biyantoro (2019) all show a negative effect of leverage on sukuk ratings. Based on these findings, the hypothesis is as follows:

H3: Leverage has a negative impact on Sukuk ratings.

Productivity and Sukuk Ratings

Productivity reflects the effectiveness and efficiency of asset management within a company. Demonstrating good productivity suggests that a company has strong performance (Burhanudin et al., 2017). Higher productivity leads to better valuations (Sari, 2007). More productive companies tend to generate higher profits compared to companies with low productivity. Therefore, companies with high productivity have a better ability to meet their obligations (Tensia et al., 2015). High productivity can lead to an investment grade rating (Tamara, 2013). High productivity of the company leads to high profits, which are achieved through products and services that increase the revenue used to meet obligations. The company's ability to meet its obligations with high productivity serves as a positive signal that attracts investors. Research by Henny (2016); Winanti et al., (2017); and Astuti (2017) all show a significant positive impact of productivity ratios on sukuk or bond ratings. Based on these findings, the hypothesis is as follows:

H4: Productivity has a positive impact on Sukuk ratings.

III. RESEARCH METHODS

The population of this study included all Islamic commercial banks and Sharia business units in Indonesia. The data source for this research was secondary data obtained from the official financial report publications on the websites of Islamic Commercial Banks and Sharia Business Units. The sample used consisted of Islamic Commercial Banks and Sharia Business Units that have been assessed by PT. PEFINDO for the period 2015-2019. The sample selection process is presented in Table 1.

Table 1. Sample Selection

Description	Total
Islamic Commercial Banks	12
Sharia Business Units	14
Banking companies that do not provide annual reports and are not rated by PT. PEFINDO for the period 2015-2019	(9)
Banking companies with outlier data	(1)
Total Islamic Commercial Banks and Sharia Business Units	16
Total Observations (Number of banks x 5 years)	80

Based on Table 1, it can be concluded that the total sample used in this study consisted of 80 observations of Islamic commercial banks and Sharia business units rated by PT. PEFINDO for the period 2015-2019. The sample of Islamic commercial banks included Bank BNI Syariah, Bank BRI Syariah, Bank Panin Dubai Syariah, and Bank Syariah Mandiri. Meanwhile, the sample of Shariah commercial banks consisted of Bank Permata, Bank Danamon Indonesia, Bank CIMB Niaga, Bank OCBC NISP, Bank Tabungan Negara, BPD DKI, BPD Jawa Tengah, BPD Sumatera Utara, BPD Jawa Timur, Bank Maybank Indonesia, BPD Sumatera Barat, and BPD Sulawesi Selatan and Sulawesi Barat. The bank identified as an outlier is Bank Muamalat Indonesia. The occurrence of this outlier was due to non-normal data. According to Ghozali (2016), one way to normalize the data is to remove the outlier data. In this study, outliers were removed using standardization, which means that if the value is above 2.5 or below -2.5, the data was excluded from the research sample.

The dependent variable of this study was Sukuk ratings. Sukuk ratings or Sharia bond ratings are indicators of timely payment of obligations and profit sharing of sukuk, which reflect the risk scale of traded sukuk (Fitriani et al., 2020). Based on the previous ratings of PEFINDO, sukuk ratings are generally divided into two categories: investment grade, ranging from AAA, AA, A to BBB, and non-investment grade,

ranging from BB, B, CCC to D (Sari, 2007). In this study, a nominal scale was used by converting the sukuk ratings. This scale categorized the ratings by assigning numbers from 0 to 7 to differentiate between the different ratings. The conversion used in this study is shown in Table 2.

Table 2. Sukuk Rating Categories

Rating Value	Rating
0	D
1	CCC
2	B
3	BB
4	BBB
5	A
6	AA
7	AAA

Source: Purwaningsih (2008)

Profitability ratios assess a company's ability to generate profits over a specific period (Fitriani et al., 2020). Profitability ratios were used to measure how effectively a company operates to earn profits (Purwaningsih, 2008). According to Bank Indonesia Circular Letter No. 13/30/DPNP 2011, profitability in this study was proxied by return on assets (ROA), which can be formulated as follows:

$$\text{ROA} = (\text{Pre-tax Profit})/(\text{Total Assets})$$

Liquidity ratios indicate a company's ability to meet its short-term financial obligations promptly (Pebruary, 2016). Based on Bank Indonesia Circular Letter No. 6/23/DPNP 2004, liquidity in this study was proxied by the quick ratio, which can be calculated as follows:

$$\text{Quick Ratio} = (\text{Current Assets} - \text{Inventory})/(\text{Current Liabilities})$$

Leverage ratios measure how much a company is funded by debt (Kustiyaningrum et al., 2016). These ratios assessed the balance between assets financed by creditors or debt and those financed by the company's owners or equity (Nurakhiroh et al., 2014). According to Bank Indonesia Circular Letter No. 6/23/DPNP 2009, leverage in this study is proxied by the debt-to-equity ratio, which can be expressed as follows:

$$\text{Debt-To-Equity Ratio} = (\text{Total Debt})/(\text{Total Equity})$$

Productivity ratios gauge how effectively a company uses its available resources (Tamara, 2013). Based on Bank Indonesia Circular Letter No. 6/23/DPNP 2004, productivity in this study is proxied by the asset turnover, which can be calculated as follows:

$$\text{Total Asset Turnover} = \text{Revenue}/(\text{Total Assets})$$

Multiple regression analysis is employed to measure the influence of more than one independent variable on a dependent variable (Ghozali, 2016). Multiple linear regression analysis is used to test the extent of the impact of profitability, liquidity, leverage, and productivity on Sukuk ratings. The multiple regression equation is as follows:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + e$$

Where: Y = Sukuk ratings; α = Constant; β_1 .. β_4 = Regression coefficients for independent variables; X1 = Profitability; X2 = Liquidity; X3 = Leverage; X4 = Productivity; and e = Error

IV. RESULTS AND DISCUSSION

Result

The descriptive statistics is presented in Table 3.

Table 3. Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Standar Deviasi
Sukuk Ratings	80	5	7	5.95	0.825
Profitability (ROA)	80	-10.77	4.96	1.5860	1.88239
Liquidity (Quick Ratio)	80	1.08	18.10	2.7890	3.13487
Leverage (DER)	80	0.34	11.40	5.5250	2.75882
Productivity (TATO)	80	0.01	2.82	0.1046	0.30813

The dependent variable in this study was the sukuk rating measured on a nominal scale. Based on the data processing conducted using SPSS, a sample of 80 observations was obtained. The minimum value of 5 was held by the Islamic Commercial Bank, Bank Panin Dubai Syariah, while the Sharia Business Unit category includes BPD DKI, BPD Jawa Tengah, BPD Sumatera Utara,

BPD Jawa Timur, BPD Sumatera Barat, and BPD Sulawesi Selatan and Sulawesi Barat. The maximum score of 7 was assigned to Sharia business units, including Bank Permata, Bank Danamon Indonesia, Bank OCBC NISP, Bank CIMB Niaga, and Bank Maybank Indonesia. The mean was 5.95 with a standard deviation of 0.825. The average value of 5 indicates that the majority of the sampled companies have sukuk ratings in the A category, indicating strong long-term financial commitment capabilities.

The profitability variable in this study was measured by return on assets (ROA). The minimum value was -10.77, which belongs to the Islamic Commercial Bank, Bank Panin Dubai Syariah. The maximum value of 4.96 was belongs to Sharia Business Unit, BPD Sulawesi Selatan and Sulawesi Barat. The average value was 1.5860 and the standard deviation was 1.88239. The obtained average ROA value exceeds 1.5%, which indicates that the majority of the sampled companies are classified as very healthy (Bank Indonesia Circular Letter 13/30/DPNP/2011).

The liquidity variable in this study was measured by the Quick Ratio (QR). The minimum value of 1.08 was attributed to the Sharia business unit, BPD Sumatera Utara. The maximum value of 18.10 was associated with the Islamic commercial bank, Bank Panin Dubai Syariah. The average value was 2.7890 with a standard deviation of 3.13487. The average value of quick ratio is more than 10%, which indicates that the majority of the sampled companies are rated as less favorable (Bank Indonesia Circular Letter 6/23/DPNP/2004).

The leverage variable in this study was measured by the Debt Equity Ratio (DER). The minimum value of 0.34 belonged to the Islamic Commercial Bank, Bank Panin Dubai Syariah. The maximum value of 11.40 belonged to the Sharia Business Unit, Bank Tabungan Negara. The average value was 5.5250 with a standard deviation of 2.75882. The average value of debt-equity ratio was more than 10%, which indicates that the majority of the sampled companies are rated as less favorable (Bank Indonesia Circular Letter 6/23/DPNP/2009).

The productivity variable in this study is measured by Total Asset Turnover (TATO). The minimum value of 0.01 belonged to the Sharia business unit, BPD Jawa Tengah. The maximum value of 2.82 belonged to the Sharia business unit, Bank Maybank Indonesia. The average value is 0.1046 and the standard deviation was 0.30813. The average value of total asset turnover was more than 10%, indicating that the majority of the sampled companies are rated as very good (Bank Indonesia Circular Letter 6/23/DPNP/2004).

The normality test in this study used the Kolmogorov-Smirnov test. The criterion for normality testing is that if the significance value is >0.05 , then the residual data values have a normal distribution, and if the significance value is <0.05 , then the residual data values do not have a normal distribution.

Table 4. Normality Test

	Residual	Alpha
N	80	
Asymp. Sig. (2-tailed)	0.058	0.05

Based on Table 4, the results of the normality test using the Kolmogorov-Smirnov test show that the Asymp. Sig. (2-tailed) value was $0.058 > 0.05$. Therefore, it can be concluded that the residuals have a normal distribution.

The multicollinearity test aims to examine whether there is a correlation between independent variables. To determine the presence of multicollinearity, you can look at the tolerance values (>0.10) and the VIF (Variance Inflation Factor) values (<10). A good regression model should not have correlations among independent variables.

Table 5. Multicollinearity Test Results

Independent Variables	Tolerance	VIF	Conclusion
Profitability (ROA)	0.714	1.401	No multicollinearity
Liquidity (Quick Ratio)	0.392	2.549	No multicollinearity
Leverage (DER)	0.500	2.000	No multicollinearity
Productivity (TATO)	0.998	1.002	No multicollinearity

Based on Table 5, the results of the multicollinearity test show that each independent variable, namely profitability, leverage, productivity, and liquidity, has tolerance values greater than 0.10 and VIF values less than 10. Therefore, it can be concluded that there is no multicollinearity.

The heteroskedasticity test aims to examine whether there is heteroskedasticity in the regression model, which means differences in the variance of residuals across observations. Heteroskedasticity can be detected using the Glejser test. The criterion for heteroskedasticity is that if the probability value

(significance) is >0.05 (alpha), there is no heteroskedasticity in the regression model, and if the probability value is <0.05 , there is heteroskedasticity in the regression model. The results of the heteroskedasticity test are presented in Table 6.

Table 6. Heteroskedasticity Test

Independent Variables	Sig.	Conclusion
Profitability (ROA)	0.578	No heteroskedasticity
Liquidity (Quick Ratio)	0.484	No heteroskedasticity
Leverage (DER)	0.646	No heteroskedasticity
Productivity (TATO)	0.123	No heteroskedasticity

Based on Table 6, the results of the heteroskedasticity test using the Glejser test show that all independent variable had significance values greater than 0.05. Therefore, it can be concluded that there is no heteroskedasticity in this study.

The autocorrelation test aims to examine whether there is a correlation between disturbance errors in different time periods. Autocorrelation can be detected using the Durbin-Watson test.

Table 7. Autocorrelation Test

Model	Durbin-Watson	Du	Dl	Conclusion
1	1.623	1.7430	1.5337	No autocorrelation

Based on Table 7, the results of the autocorrelation test using the Durbin-Watson statistic show that the value is 1.623, which falls within the range of $dl (1.5337) \leq d \leq du (1.7430)$. This means that the Durbin-Watson value falls between dl and du, indicating that there is no autocorrelation in this study.

Multiple linear regression analysis is used to measure the influence of more than one independent variable on a dependent variable. Multiple linear regression will test the influence of profitability, liquidity, leverage, and productivity on the sukuk rating.

Table 8. Multiple Regression Analysis Results

Variable	Coefficient	Sig.	One-Tailed
Constant	7.409		
Profitability (ROA)	-0.186	0.001	0.0005
Liquidity (Quick Ratio)	-0.193	0.000	0.0000
Leverage (DER)	-0.119	0.006	0.0030
Productivity (TATO)	0.307	0.256	0.1280
Adjusted R-square	= 0.208		
F statistic	= 0.000		

The coefficient of determination (Adjusted R-squared) was used to measure how well the model explains the variation in the dependent variable. Based on the output in Table 8, the Adjusted R-Square value was 0.208. This indicates that 20.8% of the sukuk rating (Y) in Islamic Commercial Banks and Sharia Business Units is explained by the variables profitability (X1), liquidity (X2), leverage (X3), and productivity (X4), while the remaining 79.2% is explained by variations in variables outside the scope of this study.

Discussion

Based on the hypothesis testing results presented in Table 8, the coefficient value (β) is -0.186 with a significance value of 0.0005. This indicates that the significance value is ≤ 0.05 , and the coefficient is negative. Therefore, it can be concluded that profitability has a significant negative influence on Sukuk ratings. This suggests that H1 is not supported. This finding aligns with the research conducted by Pinanditha and Suryantini (2016), which indicated that profitability has a negative impact on bond or Sukuk ratings. In other words, as a company's profitability increases, the bond rating of that company tends to decrease. Even though the company generates high profits, those profits are used to fulfill both short-term and long-term obligations. A decrease in profitability is attributed to the high cash outflows of the bank. However, the bond rating of the company remains good. Thus, profitability alone cannot be used to assess bond ratings. This assertion is supported by the research data showing that Bank BNI Syariah, which has high profitability, does not have a high Sukuk rating.

The coefficient value (β) is -0.193 with a significance value of 0.000. This indicates that the significance value is ≤ 0.05 , and the coefficient is negative. Therefore, it can be concluded that liquidity has a significant negative influence on Sukuk ratings. This suggests that H2 is not supported. Sari & Badjra (2016) demonstrated in their study that negative liquidity implies that a company with high liquidity is likely not operating efficiently. For instance, the company may not resort to financing through bonds because it possesses substantial internal funds and tends to

prioritize internal funds over external financing sources, such as issuing bonds or Sukuk. This choice can result in the decrease of the company's value and impact its bond rating. This research finding is in line with the studies conducted by Pramesti (2017) and Hasan & Dana (2018). This assertion is supported by the research data showing that Bank Panin Dubai Syariah, which has high liquidity, does not have a high Sukuk rating.

The coefficient value (β) was -0.119 with a significance value of 0.003. This indicates that the significance value is ≤ 0.05 , and the coefficient is negative. Therefore, it can be concluded that leverage has a significant negative influence on Sukuk ratings. This suggests that this study supports H3. Muhammad & Biyantoro (2019) demonstrated in their study that the leverage ratio has a negative impact on Sukuk ratings. This means that if the debt ratio increases, Sukuk ratings will decrease. Conversely, if the debt ratio decreases, Sukuk ratings will increase. This research finding aligns with the studies conducted by Pebruary (2016) and Pinanditha & Suryantini (2016), which stated that the leverage ratio has a significant negative impact on bond ratings. This implies that the higher the leverage ratio of a company, the lower its bond ratings. A high leverage ratio means that most of the company's assets are financed by debt, which exposes the company to default risk and may result in a lower bond rating. The extensive use of debt compared to equity can increase the company's financial risk.

The coefficient value (β) was 0.307 with a significance value of 0.128. This indicates that the significance value is ≥ 0.05 . Therefore, it can be concluded that productivity does not have a significant influence on Sukuk ratings. Productivity ratios measure how effectively a company uses its available resources. In the case of financial companies, the components of their assets are mostly in the form of receivables, investment securities, bonds or Sukuk, placements, and loans. These assets are funded by customer deposits (debt). Financial companies utilize their debt (customer deposits) for reinvestment to generate profits. Therefore, productivity ratios cannot effectively represent the evaluation of bond ratings (Martinus & Suryaningsih, 2014). This research finding also aligns with the studies conducted by Tensia et al., (2015) and Burhanudin et al., (2017). This assertion is supported by the research data showing that Bank BNI Syariah and Bank BRI Syariah, which have high productivity, do not have high Sukuk ratings.

V. CONCLUSION

In this study, we aimed to analyze the factors influencing Sukuk ratings, focusing on independent variables such as profitability, liquidity, leverage and productivity. Based on our research findings, profitability has a negative impact on sukuk ratings, indicating that higher profitability is associated with lower sukuk ratings. Similarly, liquidity has a negative impact on sukuk ratings, suggesting that higher levels of liquidity are associated with lower sukuk ratings. Leverage also has a negative impact on sukuk ratings, suggesting that higher levels of leverage are associated with lower sukuk ratings. However, productivity does not appear to have a significant impact on sukuk ratings in this study.

Several limitations should be taken into account when interpreting our results. First, our research does not examine the impact of productivity on sukuk ratings using alternative measures. Second, the adjusted R-squared test shows that only 20.8% of the variance in the dependent variable is explained by the independent variables we examined, leaving 79.2% unexplained by factors not included in our study.

To build on our research and address its limitations, we offer the following suggestions for future research. Future studies should consider alternative measurement proxies for the productivity variable to provide a more comprehensive analysis of its impact on sukuk ratings.

Future studies are encouraged to introduce additional independent variables that were not tested in our research, thereby increasing the explanatory power of the model with respect to the dependent variable. This approach can contribute to a more comprehensive understanding of the determinants of sukuk ratings.

The implications of the findings of this study are significant for various stakeholders in the financial industry, including investors, issuers, rating agencies, and policy makers. The implications of this study highlight the importance of financial factors such as profitability, liquidity and leverage in determining Sukuk ratings. Recognizing their influence can help investors make informed decisions, guide issuers in managing their finances, assist rating agencies in refining their methodologies, and inform policymakers in designing regulations for the sukuk market.

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