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Interactive Effect of Capital Structure on Profitability and Earning Per Share of Sharia Bank

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KEYWORD

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ABSTRACT

The purpose of this study was to examine the effect of return on assets (ROA) and return on equity (ROE) on earnings per share (EPS) with a debt to equity ratio (DER) as a moderator in Islamic banking in Indonesia. The data was obtained from Islamic banking which was indexed on the Indonesia Stock Exchange from 2016 to 2020. The data was then analyzed using the Moderated regression analysis (MRA) method to determine the relationship and interaction of each variable studied. The results showed that ROA had a positive effect on EPS and ROE had a negative impact on EPS. Meanwhile, DER weakens the relationship between ROA and ROE to EPS. This study confirms that the use of debt has a negative impact on the relationship between ROA and ROE on increasing Islamic banking profits in Indonesia.

1. Introduction

The development of a country is determined by the development of the capital market which is of interest to the public to invest. Communities who are familiar with the capital market show an advanced level of economic knowledge of the community. Meanwhile, traditional people prefer to invest in gold and land where the level of liquidity tends to be slow. Therefore, it is very important for the government to encourage its people to invest in the capital market sector. One of the sectors in the capital market that is of concern is Islamic banking.

The banking sector is a field of business that investors are interested in investing in the Indonesia Stock Exchange. Banking is an intermediary institution that triggers economic movement in all sectors. If bank credit increases, working capital will also increase so that it can increase business growth and investment. In the process of investing activities require some special considerations for investors to invest. Investment activities require accuracy, therefore investors need several indicators in determining an investment decision. One of them is Earning per Share (EPS). This indicator relates to the capital market ratio which measures a company's net income from one period divided by the number of outstanding shares. If the earnings per share are high, then the company is able to provide greater profits to shareholders (investors). In other words, if the EPS is high, the company's performance is getting better because the profits given are higher (Nugrahani & Suwitho, 2016).

High company profit sharing requires prediction of financial ratios. This ratio provides information in analyzing the development of EPS in a company. Return on assets (ROA) and return on equity (ROE) are financial ratios that can predict EPS movements in companies (Efendi & Ngatno, 2018; Nugrahani & Suwitho, 2016; Taani & Banykhaled, 2011; Wartono, 2018). The results of previous research conducted by (Sutejo, Swasto, & Salim, 2010) show that ROE is one of the factors that can increase EPS in the food and beverage industry that goes public on the Jakarta Stock Exchange. This research is also supported by the results of research (Nugrahani & Suwitho, 2016) which states that ROE has a positive impact on EPS, meaning that the higher the value of ROE in a company, it can increase earnings per share in that company. While the results of research (Nugroho & Ichsan, 2011) show that ROE has no effect on EPS in the pharmaceutical industry sector which was listed on the Indonesia Stock Exchange in 2006. This research is also supported by (Diaz & Jufrizen, 2014) that ROE has no effect on EPS to Insurance Companies Registered on the Indonesia Stock Exchange.

On the other hand, ROA as a measure of profitability also affects earnings per share. As the results of research conducted by (Indira & Wany, 2021) stated that ROA has a positive effect on EPS. This research is also supported by (Riawan, 2020; Wartono, 2018) where ROA is a factor that can increase EPS in companies. However, research conducted by (Diaz & Jufrizen, 2014) states that ROA has no effect on EPS. The difference in the results of this study shows that the topic of this research is interesting to re-examine.

This study tries to explain the relationship between Return on Assets and Return on Equity to Earning Per Share which is moderated by the Debt to Equity Ratio. The research is expected to be able to answer the research gap phenomenon between Return on Assets and Return on Equity on Earning Per Share by using the context of Islamic banking which is Indexed by the Indonesian Stock Exchange.

Using a quantitative approach with associative descriptive method. This research is used to analyze the relationship between research variables. This study uses panel data obtained from Islamic banking in Indonesia with the provisions that the criteria for Islamic banking are indexed on the Indonesian stock exchange and consistently report their finances from 2016 to 2020. Through purposive sampling, 4 Islamic banks were obtained that match the criteria, namely Bank BRI Syariah, Bank Sharia Panin, Islamic Aladin Bank, and Sharia BTPN bank.

These data were then analyzed using Moderated regression analysis to analyze the relationship between research variables. Moderated regression analysis aims to explain how moderator variables strengthen or weaken the relationship between independent and dependent variables.

2. Literature Review

Signalling Theory

Signal theory states that company executives who have better information about their company will convey this good information to potential investors (Yustrianthe & Mahmudah, 2021). Information is an important element for investors and business people because information essentially presents information, records, or descriptions of past, present and future conditions for the survival of a company. research conducted by (Efendi & Ngatno, 2018) states that Signaling Theory is a form of sign on the part of company management in providing positive signals for investors in investing in companies. This signal indicates that the company has an advantage or is better than other companies. In Signaling Theory, the form of signals given by companies through financial reports includes analysis of financial ratios, such as ROA, ROE. DER and EPS. This is done to influence investors to invest in the company.

Profitability and earning per share

Financial ratios in measuring asset comparisons in determining profits are known as ROA. This ratio explains that a company can use its assets to obtain the profit or profit expected by the company. In other words, ROA is a measure of a company's ability to use all of its assets to generate the expected company profit. These assets are in the form of capital, fixed assets, and company sales (Sudana, 2015). High ROA can trigger high profits, this condition can affect investors' interest in investing (Cahyono, Surasni, & Hermanto, 2019).

The relationship between ROA and EPS is supported by previous research results (Efendi & Ngatno, 2018) which stated that the ROA variable has a positive effect on EPS in textile and garment sub-sector companies. The results of this study are also supported (Riawan, 2020) that ROA is a factor that can increase EPS so that companies can develop. This research was conducted on companies that are members of the LQ45 companies on the Indonesia Stock Exchange in the 2016-2018 period.

Hypothesis 1a: There is a positive relationship between ROA and earnings per share

According to (Nugrahani & Suwitho, 2016) ROE is a form of financial ratio that shows the company's ability to earn profits for the return on capital of shareholders. ROE measures how effectively the capital provided by investors is managed by management (Shinta & Laksito, 2014). If the management manages the capital provided by investors effectively, the company's profits will increase and the distribution of profits to shareholders will also increase.

The relationship between ROE and EPS is supported by the results of previous research (Nugrahani & Suwitho, 2016) which states that the more a company increases ROE, the EPS within the company will increase. The results of this study are also supported by (Shinta & Laksito, 2014) that ROE is one of the factors that can increase EPS in companies listed on the Indonesia Stock Exchange in 2010-2012. Other studies also support the relationship between ROE and EPS. ROE is a factor that can affect the increase in EPS in the industrial sector in Jordan (Taani & Banykhaled, 2011)

Hypothesis 1b: There is a positive relationship between ROE and earnings per share

Profitability, earning per share, capital structure

The capital structure shows the company's financial position which can provide negative or positive information on the progress of the company. Management must pay attention to the position of this capital structure because capital structure can affect company profits. Debt to Equity Ratio is a comparison of the total debt owned by the company with its own capital (equity). This ratio is used to see how much the company's debt is compared to the equity owned by the company or its shareholders (Nugrahani & Suwitho, 2016).

Research conducted by (Sutejo et al., 2010) states that DER has a positive effect on earnings per share in the Go Public Food and Beverages Industry on the Jakarta Stock Exchange. However, research conducted by (Maimunah & Megasatya, 2015) states that DER has a negative effect on earnings per share at PT Telekomunikasi Indonesia Tbk. The use of debt on capital in Telekomunikasi Indonesia Tbk can reduce profit distribution to shareholders. This research is also supported by (Riawan, 2020) which states that DER has a negative effect on earnings per share in LQ45 companies that have been registered on the Indonesia Stock Exchange (IDX).

In addition, DER in several studies is positioned as a moderator variable that can influence the relationship between profitability and firm value. Research conducted by (Indira & Wany, 2021) states that capital structure moderates LDR on firm value at banking companies on the IDX in 2016-2019. However, this study (Virolita, 2020) states that DER does not moderate the relationship between ROE and company value in the Food and Beverage Sub Sector in 2016-2018. Likewise with (Khoirunnisa & Wijaya, 2019) which supports that DER does not moderate the relationship between profitability and firm value because investor decisions are not influenced by the size of the company's capital. See figure 1,

Hypothesis 2a: The positive relationship between ROA and earning per share will moderate by capital structure

Hypothesis 2b: The positive relationship between ROE and earning per share will moderate by capital structure

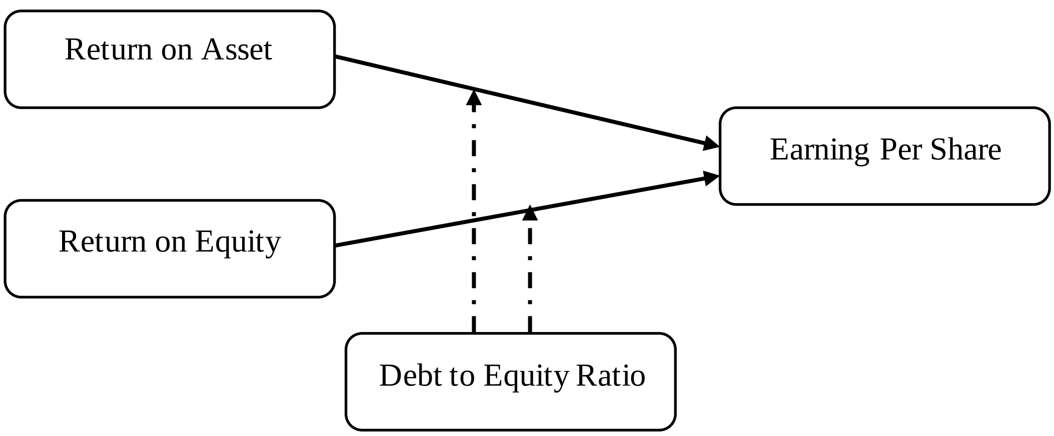

Figure 1. Conceptual Model

3. Result and Discussions

The relationship between research variables, namely capital structure, profitability and firm value is analyzed using the correlation test as follows:

Table. 1 The summary of mean, Std. Deviation and correlation

	Mean	Std. Deviation	ROA	ROE	DER	EPS
ROA	0.01145	0.063456	1	.585**	-0.239	.683**
ROE	-0.11608	0.815653	.585**	1	-0.249	0.066
DER	1.18008	1.165223	-0.239	-0.249	1	0.101
EPS	-8375.87850	43666.249931	.683**	0.066	0.101	1

**. Correlation is significant at the 0.01 level (2-tailed).

Based on Table 1, it shows that ROA has a positive relationship with EPS (r=0.683, p<0.000), ROE has a positive relationship with EPS (r=0.0066, p<0.000), and DER has a positive relationship with EPS (r=0.101, p <0.000). Based on the average value and standard deviation, sharia banking has an average ROA value of 0.01145 and a standard deviation value of 0.063456, an average ROE value of -0.11608 and a standard deviation value of 0.815653, an average DER value of 1.18008 and a standard value deviation of 1.165223, and a standard deviation value of 0.815653, an average EPS value of -8375.87850 and a standard deviation value of 43666.249931.

Tabel 2 result of moderating testing of DER on relationship between ROA and EPS

Model	Coeff	se	t	p	95% CI	
					LLCI	ULCI
Constant	-30132.136	9391.4387	-3.2085	.0055	-50042.974	-10221.299
ROA	770559.742	146044.818	5.2762	.0001	460929.373	1080190.11
DER	10044.9194	5580.4930	1.8000	.0907	-1786.3125	21876.1513
ROA x DER	-331215.98	135678.863	-2.4412	.0266	-618869.44	-43562.528
R^2	.6658					
R^2 Change	.1245					
F (df	10.7(16)					

Note. N = 16. **p < .01, *p < .05

Based on table 2. It can be concluded that ROA has a positive effect on EPS (Table 2; β = 770559.742, p < .01). Furthermore, DER moderates the effect of ROA on EPS. However, the moderating effect weakened the effect of ROA on EPS (Table 2; β = -331215.98, p < .01).

Table 3 Conditional Moderated effects of DER on influence between ROA and EPS (Model 1 of the process analysis)

DER	Conditional Effect	se	t	p	95% CI	
					LLCI	**LLCI**
Low (.0623)	749920.012	140142.619	5.3511	.0001	452802.926	1047037.10
Medium (1.1801)	379699.027	116719.554	3.2531	.0050	132241.302	627156.751
High (2.3453)	-6241.4139	237323.054	-.0263	.9793	-509391.24	496908.412

Note. N = 16. **p < .01, *p < .05

Based on the results of the Conditional Moderated effects in Table 3, the effect of DER at low and medium levels is significant, while at high levels it is not significantly negative. Thus, the effect of DER on the relationship between ROA and EPS strengthens at low and moderate levels. However, a high DER level can weaken the relationship between ROA and EPS. In other words, the relationship between ROA and EPS strengthens when DER is at low and medium levels, while at high DER levels the relationship between ROA and EPS weakens.

Tabel 4 result of moderating testing of DER on relationship between ROE and EPS

Model	**Coeff**	**se**	**t**	**p**	**95% CI**	
					LLCI	**ULCI**
Constant	-31562.389	11908.6783	-2.6504	.0175	-56810.039	-6314.7388
ROE	294702.313	75238.9129	3.9169	.0012	135187.908	454216.719
DER	10505.5240	7036.3776	1.4930	.1549	-4412.3362	25423.3842
ROE x DER	-124390.00	32051.4333	-3.8809	.0013	-192342.41	-56437.589
R^2	.4948					
R^2 Change	.4756					
F (df	5.3(16)					

Note. N = 16. **p < .01, *p < .05

Based on table 2. It can be concluded that ROE has a positive effect on EPS (Table 2; β = 294702.313, p < .01). Furthermore, DER moderates the effect of ROA on EPS. However, the moderating effect weakened the effect of ROA on EPS (Table 2; β = -124390.00, p < .01).

Table 5 Conditional Moderated effects of DER on influence between ROE and EPS (Model 1 of the process analysis)

DER	Conditional Effect	se	t	p	95% CI	
					LLCI	LLCI
Low (.0623)	286950.949	73259.1851	3.9169	.0012	131633.774	442268.123
Medium (1.1801)	147912.406	38061.0994	3.8862	.0013	67218.8741	228605.939
High (2.3453)	2970.3356	9839.4091	.3019	.7666	-17890.246	23830.9173

Note. N = 16. $^{**}p < .01$, $^{*}p < .05$

Based on the results of the Conditional Moderated effects in Table 3, the effect of DER at low and medium levels is significant, while at high levels it is not significantly negative. Thus, the effect of DER on the relationship between ROE and EPS strengthens at low and moderate levels. However, a high DER level can weaken the relationship between ROE and EPS. In other words, the relationship between ROE and EPS strengthens when DER is at low and medium levels, while at high DER levels the relationship between ROE and EPS weakens.

Discussion

Hypothesis 1a. The results of this study state that the return on assets has a positive and significant effect on earnings per share. This means that the higher the return on assets obtained, the impact on increasing the value of the shares so that the dividends to be obtained will also increase as a result of the increased EPS value. This research is supported by the results of previous research which stated that the ROA variable has a positive effect on EPS (Efendi & Ngatno, 2018; Riawan, 2020). ROA is a factor that can increase EPS so that the company can grow.

Hypothesis 1b. The results of this study state that return on equity has a positive and significant effect on earnings per share, meaning that the higher the return on capital earned, the higher the stock value, so that the dividends to be obtained will also increase as a result of the increased EPS value. This research is supported by the results of previous research which stated that ROE has a positive effect on EPS (Nugrahani & Suwitho, 2016; Shinta & Laksito, 2014; Taani & Banykhaled, 2011). These studies confirm that ROE is a factor that can influence EPS increases in companies.

Hypothesis 2a. The results of the study state that the Debt to Equity Ratio (DER) weakens the relationship between ROA and EPS. In other words, the capital structure that comes from debt can reduce income from assets so that the distribution of profit shares also decreases. The results of this study support previous research which stated that DER can reduce earnings per share confirmed by previous results (Maimunah & Megasatya, 2015) at PT Telekomunikasi Indonesia Tbk and research (Riawan, 2020) on LQ45 companies that are already listed on the Indonesia Stock Exchange (IDX). The existence of high debt can affect the net income earned by the company because some of the income earned will be paid for interest and loan principal which is the obligation of the company. As a result, the income of the owner of capital is less than optimal because the earnings per share (EPS) he earns are small.

Hypothesis 2b. The results of the study state that DER weakens the relationship between ROE and EPS. In other words, if a company improves its capital structure from debt, this can affect the profitability of Islamic banking in increasing the distribution of share profits to investors. The results of this study are supported by (Gusnita & Martha, 2019) which states that capital structure can weaken the relationship between company growth and company value.

4. Conclusion

The results showed that ROA and ROE have a positive effect on EPS. This means that the higher the ratio of assets and the ratio of capital owned by Islamic banking, the higher the profit sharing level of Islamic banking. The results of further studies state that DER weakens the relationship between ROA and ROE on EPS. This proves that the use of capital from high debt can reduce the profitability ratio so that profit sharing for investors also decreases. This research provides information for investors to pay attention to capital structure factors originating from debt when they want to invest in companies. Therefore, Islamic banking must maximize its profitability with a capital structure that comes from small or medium debt so that investors' interest in investing increases because the profits generated also increase.

This research has several limitations including: First, this research uses Islamic banking companies as a research locus. This has an impact on the level of generalization that cannot be carried out for other sectors. Second, this study uses the period from 2016 to 2020. Furthermore, researchers are expected to be able to use a longer period of years in discussing this study. Third, this study is limited to the use of the ROA and ROE research variables in measuring profitability even though there are still many variable measurements that can be used such as gross profit margin, net profit margin, return on sales ratio, return on capital employed, and return on investment. Fourth, this study only uses DER in measuring capital structure as a moderating variable. Furthermore, researchers can use the debt asset ratio as a moderating variable.

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