

THE MODERATING EFFECT OF SALES VOLATILITY IN THE COMPANIES LIST OF SHARIAH SECURITIES DURING THE ERA PANDEMIC

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ABSTRACT

The volatility of sales and cash flow companies during Covid 19 in the world are unstable. This study aims to analyze the moderating effect of sales volatility in the relationship between debt level, company size, and cash flow volatility on profit persistence. We used the interaction method to analyze the companies' list of sharia securities reports from 2018 to 2022. The results show that debt level positively affects profit persistence. Company size does not effect to profit persistence. Cash flow volatility does not effect to profit persistence. Sales volatility negatively moderates the relationship between debt level and profit persistence. This was interesting to discuss because of the pandemic.

Keywords: Cash flow volatility, Company size, COVID-19, Debt level, Sales volatility, Profit persistence.

INTRODUCTION

The quality of profits is persistent. There is less evidence of sustained profit in the banking sector (Pervana et al., 2015). Previous research has studied factors affecting earnings persistence in the bank industry (Alwan & Achyani, 2023; Awasthi et al., 2024; Gugler & Peev, 2018; Jaisinghani & Sekhon, 2022; Pervana et al., 2015) such us debt levels, company size, and cash flow volatility. Debt levels have a significant effect on profit persistence (Nahak et al., 2021). High debt levels will cause the company to increase profit persistence to maintain good management performance in the eyes of creditors and investors. Debt levels do not affect profit persistence (Humayah & Martini, 2021).

Company size has a positive effect on profit persistence (Sihotang, 2023). Other research shows that company size does not affect profit persistence (Humayah & Martini, 2021; Marta Sugema Dasuki et al., 2023). Cash flow volatility has a positive effect on profit persistence (Eka Putri Zalzabela & Srimindarti, 2021; Hendrianto et al., 2022; Lasrya & Ningsih, 2020), other researchers report that cash flow volatility does not affect profit persistence (Humayah & Martini, 2021).

The banking industry ignored environmental sustainability practices during the COVID-19 period (Zahid et al., 2023). Profit persistence decreases during COVID-19 (Mandiri & Sebrina, 2023). More than half of the sample farms increased their farm sales during this period (Yoshida & Yagi, 2021). Agriculture is one of the sectors that is very dominant in people's income in Indonesia because most of the Indonesian population works as farmers. Plantation and food crop sub-sector enterprises listed on the Sharia Securities List, whose activity is to manage and utilize land so that it becomes land to meet demands. It is these plantation sub-sector companies that make the biggest contribution to the national economy and increase the country's foreign exchange. The war between Russia and Ukraine also impacted the volatility of agricultural commodity sales. Based on gap research and existing phenomena, we examine the influence of debt levels, company size, and cash flow volatility on profit persistence moderated by sales volatility. We analyzed plantation and food crop companies listed on the sharia securities.

LITERATURE REVIEW

Agency Theory

Agency theory was originally expressed by Jensen and Meckling 1976 that explains corporate governance by defining firm owners as principals who hire agents (managers) to carry out the business of running the organization (Hult, 2011). Agency theory is closely related to profit modification actions, especially profit persistence, because these actions are carried out as proof that company management is doing what investors want. The purpose of carrying out this action is the investor's desire to receive dividends and management's interest in receiving stable compensation. So, profit persistence is carried out so that the interests of both parties, namely the agent and the principal, remain in line.

Profit Persistence

Top competitors in food retailing have higher profit persistence, which is likely due to their strong bargaining power with processors (Hirsch et al., 2021). Earnings persistence is profit that can be used as an indicator of future earnings. Sustainable profit persistence is expressed as profits that have high quality, whereas unusual profits are expressed as profits that have poor quality (Awasthi et al., 2024; Gugler & Peev, 2018). If the company's profits are not persistent, investors will experience difficulties in making decisions and this can also give rise to a tendency for investors to make wrong investment decisions. The formula used by researchers to measure profit persistence is as follows (Formula 1).

$$\text{Profit Persistence} = \frac{\text{Profit before tax } t - \text{Profit before tax } t-1}{\text{Total Asset}} \quad (1)$$

Debt Levels

Debt level is the process of forming a new business or improving an existing business into a more productive business in an effort to increase profits for the company because it has increased business capital for the company's production. Investors tend to be more careful and more alert when investing in companies that have high levels of debt. Government investment strengthens the positive and strong relationship with public debt levels (Appiah Kubi et al., 2022). Debt level increases, the firm's corporate performance grows (Chechulin & Agliardi, 2020). Corporate social performance has a substantial positive impact on corporate debt levels since it reduces financial limitations and increases stakeholder participation (Bai & Ho, 2022). The formula used by researchers to measure debt level is as follows (Formula 2).

$$\text{Debt levels} = \frac{\text{Debt Total}}{\text{Total Asset}} \quad (2)$$

Company Size

Company size is a value that shows the size of the company. For stable businesses, the level of certainty of profit is generally very high. On the other hand, for small businesses, the possibility of reduced profits may be lower. The size of the company in this study is determined by the total amount of assets possessed by the company. The company's size can be determined by its total assets and sales. The larger the company, the greater the predicted profit increase. Investors will have stronger confidence in large companies since they are perceived capable of enhancing the quality of their profits through a succession of attempts to improve company performance. Company size can be measured using the formula (3):

$$\text{SIZE} = \log(\text{Total Asset}) \quad (3)$$

Cash Flow Volatility

Cash flow is the amount of money going out and coming into a company. Cash flow relates to cash used for transactions. Cash flow volatility can indicate uncertainty in the operating environment, meaning that cash flow volatility increases, resulting in increased uncertainty in the operating environment. Companies with higher cash flow volatility are more likely to

seek debt financing (Shubita, 2023). Enterprise system implementers have better post-implementation operational efficiency to reduce operating cash flow volatility (Liu et al., 2023). The formulas of cashflow volatility are as follows (Formula 4):

$$\text{Cashflow volatility} = \frac{\sigma(\text{Cashflow Operation})t}{\text{Total Asset}} \quad (4)$$

* σ : standard deviation

Sales Volatility

Sales volatility is the degree of income distribution or an index of the spread of a company's income distribution. Low volatility of sales will indicate the ability of profits to predict future cash flows. The relationship between incentive pay plans and organizational performance is moderated by sales volatility (Menguc & Barker, 2003). Sales volatility was found to generate a scarcity perspective, where individuals ruminate and direct cognitive resources toward remedying the cause of scarcity, resulting in lower health outcomes (Sayre, 2022). The formulas (5) of sales volatility are as bellows:

$$\text{Sales Volatility} = \frac{\sigma(\text{Sales among } 6 \text{ years } jt)}{\text{Total Asset } jt} \quad (5)$$

* j : sample period

HYPOTHESIS

Debt levels have a significant effect on profit persistence (Nahak et al., 2021). High debt levels will cause the company to increase profit persistence to maintain good management performance in the eyes of creditors and investors.

H1: Debt levels have a negatively effect on profit persistence

Company size has a positive effect on profit persistence (Sihotang, 2023). According to research (Dita and Putra, 2019) found that company size has a significant positive effect on profit persistence, this is in line with research conducted by (Khasanah and Jasman 2019). Meanwhile, based on research conducted by (Amaliyah and Suwarti 2017) company size does not have a significant influence on profit persistence.

H2: Company size has a positive effect on profit persistence

Cash flow volatility has a positive effect on profit persistence (Eka Putri Zalzabela & Srimindarti, 2021; Hendrianto et al., 2022; Lasrya & Ningsih, 2020). According to research conducted by (Kunigunda Hoar Tae Nahak, 2021) based on the results of analysis and hypothesis testing, it was found that cash flow volatility had a significant effect on profit persistence, while sales volatility had a negative and significant effect on profit persistence and company size had no effect on profit persistence.

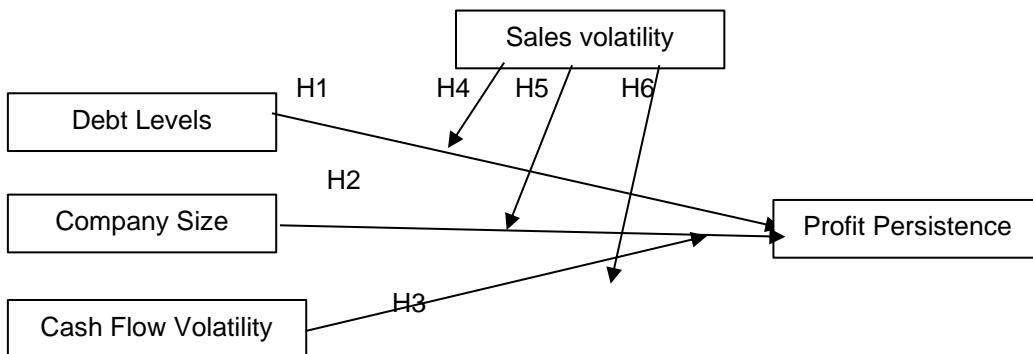
H3: Cash flow volatility has a positive effect on profit persistence

Several research was found as a moderated variable in sales volatility (Menguc & Barker, 2003; Sayre, 2022; Shubita, 2023).

H4: Sales volatility positively moderated in the relationship between debt levels and profit persistence

H5: Sales volatility positively moderated in the relationship between company size and profit persistence

H6: Sales volatility positively moderated in the relationship between cash flow volatility and profit persistence

**Figure 1. Research Model**

METHODS

The population of this research is plantation and food crop sub-sector companies registered on the Sharia Securities List for 2018 - 2023, totaling 21 companies. The samples studied were 10 companies using purposive sampling technique. Analysis technique with moderated regression analysis used SPSS 26. The formula (6) of this research as follows:

$$Y = \alpha + b1X1 + b2X2 + b3X3 + X1*Z + X2*Z + X3*Z + e \quad (6)$$

Y = Profit persistence

α = Constant; b = Coefficient; X1 = Debt Levels; X2 = Company Size

X3 = Cash Flow Volatility; Z = Sales Volatility; e = error

RESULTS

Regression Analysis

In Table 1 show regression analysis.

Table 1. Regression Analysis

	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta	T	Sig.	
(Constant)	-,129	,045		-2,875	,006	
debt level	,117	,040	,426	2,938	,005	
company size	,003	,002	,247	1,772	,082	
cash flow volatility	,000	,000	,254	1,930	,059	

Source: Data Processed (2024)

Hypothesis 1 accepted, the value coefficient debt levels are positive, and t-statistic amounting to 2,933 which is greater than 2,003 and a sig. value of 0.005 which is smaller than 0.05. So, it can be said that debt levels have a positive and significant influence on profit persistence so that the hypothesis can be accepted.

Hypothesis 2 is rejected, the value coefficient company size is positive, and t-statistic amounting to 1,772 which is smaller than 2,003 and a sig. value of 0.082 which is greater than 0.05. So, it can be said that company size does not influence profit persistence so that the hypothesis can be rejected.

Hypothesis 3 is rejected, the value coefficient cash flow volatility is positive, and t-statistic amounting to 1,930 which is smaller than 2,003 and a sig. value of 0.059 which is greater than 0.05. So, it can be said that cash flow volatility does not influence profit persistence so that the hypothesis can be rejected.

Moderated Regression Analysis

In the Table 2 show moderated regression analysis with interaction method.

Table 2. Interaction Between Debt Levels and Sales Volatility

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	-,088	,033		-2,668	,010
debt level	,136	,049	,494	2,769	,008
Debt level*sales volatility	-,006	,003	-2,149	-2,048	,045
sales volatility	,005	,002	1,944	1,936	,058

Source: Data Processed (2024)

Hypothesis 4 is accepted, it can be seen that the value coefficient of interaction between debt levels and sales volatility is negative, and t-statistic amounting to -2,933 which is smaller than -2,003 and a sig. value of 0.045 which is smaller than 0.05. So it can be said that sales volatility moderated negatively in the relationship between debt levels and profit persistence so that the hypothesis can be accepted.

Table 3. Interaction Between Company Size and Sales Volatility

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	,016	,060		,276	,784
Company size	-,001	,004	-,107	-,331	,742
Sales volatility	-,002	,003	-,905	-,726	,471
Company size*sales volatility	,000	,000	,927	,722	,473

Source: Data Processed (2024)

Hypothesis 5 is rejected, it can be seen that the value coefficient of interaction between company size and sales volatility is positive, and t-statistic amounting to -0,722 which is smaller than 2,003 and a sig. value of 0.473 which is greater than 0.05. So it can be said that sales volatility does not moderated in the relationship between company size and profit persistence so that the hypothesis can be rejected.

Table 4. Interaction Between Cash Flow Volatility and Sales Volatility

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-,009	,012		-,739	,463
Sales volatility	0,00000098	,000	,041	,247	,806
Cash flow volatility	,000	,000	,207	1,281	,205
Sales volatility* Cash flow volatility	-0,000005	,000	-,100	-,521	,605

Source: Data Processed (2024)

Hypothesis 6 is rejected, the value coefficient of interaction between cash flow volatility and sales volatility is negative, and t-statistic amounting to -0,521 which is greater than -2,003 and a sig. value of 0,605 which is greater than 0,05. So, it can be said that sales volatility does not moderate in the relationship between cash flow volatility and profit persistence so that the hypothesis can be rejected.

CONCLUSION

During COVID-19, sales volatility moderated negatively in the relationship between debt levels and profit persistence, and only debt levels positively affect profit persistence. This study limited in the Indonesian company, and in the future research needs to sample companies in countries at war

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